



Creation & Evolution

Professor D.C.Spanner

INDEX

Foreword ... 3

Introduction ... 6

God, the Cosmos and the Bible ... 17
Approach to Genesis ... 26
The Meaning of 'Creation' in the Bible ... 35
The 'Six Days' of Creation ... 44
'Special Creation' and 'Chance' ... 51
The Primal Creation ... 60
The Garden of Eden, and the coming of Eve ... 70
The Temptation, the Fall and the Curse ... 79
Adam and Mankind ... 88
Contingency, Necessity and the Anthropic Principle ... 94
Chance again; and the Origin of Life ... 102
Darwinism today ... 112
Taking stock of man ... 120
Creation: how do we picture it? ... 127
"Let us hear the conclusion of the whole matter" ... 133

Epilogue

A personal testimony, and some recommended books ... **145**

Appendix

Approach to Genesis ... 151
The Creation Week ... 154
Creation and Providence ... 156
The Primal Creation ... 158
Man's Probation ... 168
The Ages of the Antediluvians ... 172
The Flood ... 173
The Problem of Evil ... 175
Man as questioner ... 178
The Anthropic Principle ... 179
Chaos Theory ... 181

FOREWORD

Two of the most important and serious questions people ever ask are surely, "Who or what am I?" and, "How did I come to be here, on earth?" In adulthood they tend to become snuffed_out by the pressures of everyday life; and for many, life ends at last like a tale which is told, with a sigh¹, and without any satisfactory answer having ever been found. Two sources which claim to give us such an answer are the Judaeo_Christian Scriptures, and evolutionary science; in other words, the Bible and the experts in Darwinism. The latter currently get very good publicity through the highly exciting and confident writings of biologists like Richard Dawkins and philosophers like Daniel Dennett, backed_up as they often are by secular cosmologists and the authors of science fiction. The answers they give invoke many ideas outside the stock_in_trade of the ordinary man or woman, and are usually at a specialist level above their ability to challenge; the listener is accordingly left with conclusions only half_believed because he is out of his depth and because they often run counter to deep intuitions.

On the other hand the Bible, concerned with the ethical and spiritual facts of life rather than the genetical and physiological ones, expresses itself in everyday terms about many things (such as married faithfulness and financial honesty) which involve these same intuitions in a sometimes disconcerting way. So many people are left with a rather comfortless sort of semi_persuasion. We are surrounded today by the evidence of vast scientific and technical achievements and we confidently expect more. This puts the Bible at a disadvantage. It holds out nothing to flatter human pride and self_confidence; rather the reverse. It is ancient too; neo_Darwinian insights are up_to_date. Surely therefore they are a safer bet? Furthermore, familiarity with the Bible today is pitifully small, even among the well_educated (a recent survey showed that a majority of clergy could not repeat the Ten Commandments). These things justify a discussion like the present one. It is obvious that the answers we give to the two questions we started with will lead to very different evaluations of life and how we should live it, and will raise many matters worthy of very serious attention.

It is only right to make plain the ultimate ground on which my own convictions rest. It is the supremacy of Jesus of Nazareth, Jesus Christ, over every other figure who has appeared on the stage of world history. His life and death exhibit a consistent glory no other can approach. Not only so, but it was followed by an event, his bodily resurrection and reappearance among His disciples, which is too well_attested by the evidence available to historical judgement to be lightly brushed aside². However, my argument cannot start with this because the information we have about him is provided almost entirely by the writings we call the New Testament, with the highly important backing of the Old. This therefore is my reason for beginning the discussion with the Pentateuch, in particular with Genesis. Such a beginning is consistent with faith in Jesus Christ who himself appealed to it³. (If this savours of reasoning in a circle, reference should be made later to Appendix I).

There are three other points of importance. The first is to explain my plan in this book. It is not primarily to present as many faults as I can lay hands on in the structure of neo_Darwinism, though it will be necessary to touch on some. That could in any case be done better by others more expert than myself. It is rather to face the question. Are there any irreconcilable differences between the Bible's account of things and neo_Darwinism's? If so, what are they? I think of course that there are, and shall attempt to justify this view. Some of the conclusions reached may be unexpected.

The second point is a very important one, often alas, overlooked. It is that the Bible must

be recognised as free to define its own terms and to declare its own standpoint. These will clearly govern its correct interpretation. One very important example is the declaration of Deut.29.29, which says that the reason why the Bible has been given us is to teach us and our children the sort of life God would have us live, for in that we shall find true happiness and fulfilment (the life it calls 'blessedness' _ see Ps.1; Ps.36.7_9; Isa.48.17ff, 22; and the Beatitudes in Matt.5). It was emphatically not to introduce us to physical cosmology or the specifics of DNA! For these things, God has given physical senses for observing phenomena and minds for figuring things out.⁴ Our forefathers understood all this well. "What is the chief end of man?" asked the famous Shorter Catechism of 1647. "To glorify God and to enjoy Him for ever" was its profoundly biblical reply

Finally, some colleagues have suggested that naming opponents as I have been done may appear an unfriendly gesture, and detract from calm objectivity. If so, that would be a disaster. I have no intention of being personal, and have as often as possible expressed appreciation of what Prof Dawkins and others have written. Dawkins' expositions have a brilliant style which makes them not only highly instructive, but very enjoyable as well. I have often used 'antitheism' of his position and his friends' to avoid the pejorative flavour of the 'atheism' he has used himself. But he (in particular) has poured such fierce and intolerant scorn on the biblical notion of Creator, his books have had such phenomenal success and they have won him such outstanding public praise, that it was felt they needed a clear public challenge. The message he tries to spread moreover will be to many a highly depressing one. "The universe we observe", he writes⁵, "has precisely the properties we should expect if there is, at bottom, no design, no purpose, no evil and no good, nothing but blind pitiless indifference". But the logical standing of his 'neo_Darwinian Fundamentalism'⁶ is rickety in its very foundations! Bring these things together, and they explain why it has been felt almost a duty to write as plainly as possible. No doubt I have made mistakes of my own in this; they will merit their own correction.

This contribution, the result of many years' study and thought, expresses mature convictions. I have been a lifelong reader of the Bible, and have tried to allow it to mould my thinking and my living. My chair in the University of London was in Plant Biophysics. Five years before retirement in 1978 I was ordained to the non_stipendiary ministry of the Church of England, and so can view from a reasonable angle both the ill_judged arguments of many would_be upholders of the Bible's authority as well as the untempered self_confidence of opponents claiming the authority of science. My own convictions are of the God_giveness of Holy Scripture on the one hand, and of the God_giveness of Science *as a discipline* on the other, each in its own sphere an avenue to understanding, or what the Bible calls 'wisdom'. The problem is their right use⁷. A number of specialized topics, important in themselves, have been relegated to Appendices to avoid cluttering up the main discussion.

To speak more personally, I owe much to the constructive thoughts of others, mostly members of the Research Scientists' Christian Fellowship (now 'Christians in Science'). If I had to single out one name it would be that of the late Prof. Donald MacKay, to whose faith, integrity, insight and lucidity I owe a great deal. But I have benefitted greatly from many others: Dr Oliver Barclay, Prof Sir Robert Boyd FRS, Prof R J Berry FRSE, Prof Malcolm Jeeves FRSE, Prof Colin Russell, Michael Poole, Dr Keith Blundell, Dr Gwyn Jordan and many more too numerous for a now_failing memory to recall. In fact for few of the ideas expressed can I claim originality; most of them I owe to others.

Two profoundly different understandings of our whole existence are locked in uncompromising warfare in the intellectual world today; neither offers much quarter to

the other. Many men and women never bother to make a decision between them; there are too many pleasurable (and other) distractions on offer. But to those who will pause and think the matter through, the rewards can be tremendous.

Douglas C Spanner

NOTES

- 1 Psalm 90.9 (AV, RSV)
- 2 J N D Anderson *The Evidence for the Resurrection* IVP. , Leicester
- 3 For example, see Matt.19.4_6; Mark 13.19; Luke 24.25f; John 5.39,46f
- 4 Prov.20.12 REB: *An attentive ear, an observant eye, the LORD made them both*; Job 35.10,11 REB: *God my Maker. . Who grants us more knowledge than the beasts of the earth and makes us wiser than the birds of the air*; Ps.111.2f. *The works of the LORD are great; sought out of all them that have pleasure therein* (This latter, the great physicist Lord Rayleigh put up at the Cavendish Laboratory, Cambridge).
- 5 RIVER OUT OF EDEN p.133
- 6 This title is accurately descriptive if 'fundamentalism' is used with its early meaning. It is not intended pejoratively: in the same sense I am a 'fundamentalist' myself. But my fundamental basis is not "Darwin's Dangerous Idea" (cf. Daniel C Dennett's book referred to later), but the witness of the 'Word made flesh', JESUS CHRIST (John 1.1,14; 1Cor. 3.11).
- 7 The Bible with brief profundity sets the scene for man's existence in Job 28.20_28. Verses 25, 26 refer to the physical sphere where science appropriately seeks knowledge (with a view to power); and verse 28 to the spiritual sphere where faith seeks wisdom (for authentic life). Both spheres, it implies, are under God's wise and sovereign dominion, and both therefore must be consistent with one another

Introduction [>>back home](#)

The most urgent need of our contemporary world is to recover the conviction that God is Sovereign Creator. How can we be sure? Because of the biblical testimony. Why should we accept this? An answer is given addressed to fellow scientists, fellow clergy, and any thoughtful men and women concerned to know.

When an author sits down to write a serious book he needs to be clear about three things: What is his purpose? Whom is he writing for? Is his subject worth the effort? To these might be added a fourth: What are his presuppositions? Let me therefore say something about these matters. But let me first make my position clear. I am persuaded that the teaching of the Bible on the origin of ourselves and our cosmos is entirely consistent with anything that we have come to know through careful scientific enquiry, and it is also of more vital importance. Many eminent scientists today would heartily say "Amen" to both statements _ but there are many who wouldn't. There is a very significant difference between the two. Those who say "Amen" would know both their science and the Bible; those who don't, I strongly suspect, would know little of the Bible. For it speaks in ways and of matters in which they have little interest, at least not yet; and to those who can't spare thoughtful time for it, a book like the Bible will never yield up its secrets. All this should be obvious; the same thing could be said (with less poignancy) of many exciting things in science and mathematics. My own testimony is that the things the Bible speaks of are more significant and exciting than even those of the most sensational science.

The purpose of this book therefore is a simple one. It is to commend the biblical doctrine of God as Sovereign Creator. This suffers today from two things: first, propaganda by able popularisers for the neo_Darwinian theory of evolution, propaganda which is very widely and effectively put across on the media; and second (and worse), the sad ignorance of most men and women of science and of the educated public of the Bible's profound teaching, and the hasty and in fact rather naive way anti_Darwinists often respond. This means that the first and larger task must be to examine what the Bible does teach; and the second and smaller one must be to look at the neo_Darwinian theory and see where any 'interdisciplinary' conflicts lie. The first task is an urgent one because (at least in the developed world) life is lived at a restless and superficial level, and very few stop to ask: "Has our existence come to us with any 'built_in' meaning or purpose? or are we just flung fortuitously into something vacuous and pointless to make the best we can of it?" Very few men and women today seem to have any intelligently and conscientiously thought_out philosophy of life worthy of the name. Yet the World problems our 21st century faces are more frightening than ever before. There is overpopulation, global warming, shrinking resources, environmental pollution, internet crime and seduction, proliferating nuclear know_how, intercontinental missiles,, the known threat of asteroid collision, moral breakdown, ethical insolubles, gene manipulation, a capacity for evil and a general sense that nobody anywhere, above or below, knows where history is going _ or rather, where evolution is drifting. Even intelligent men and women fear there is no prospect of any welcoming future for our world; they have lost their belief in any Guiding Hand. The deep_seated restlessness within them and a longing for something they vaguely call 'spiritual' torments them. "What's missing?" they wonder. Finding no satisfying answer some turn to religious cults of one of the plentiful sorts; for the majority life just goes on by routine _ with opportunist distractions. To any who are in real earnest these things can leave a suppressed hopelessness. It is for such that I am now writing, and I do so out of the conviction that life has been given us for a purpose, and that a glorious outcome (or its

miserable opposite) lies ahead. Why? Because behind and overshadowing our very existence stands God, the supremely great Creator and Giver of all.

Some common reactions

On the face of it there would seem to be every reason for people to wish to subscribe to this belief. But an important obstacle to its reinstatement is a certain unwillingness to be intellectually and practically committed. Most people, it appears, have a native tendency to believe in God. Yet for various reasons scarcely acknowledged many, especially the well_educated, prefer to remain rather vague in their beliefs, and to keep their formulation flexible or plastic. When intellectual questions arise their creed can then be reshaped as necessary to avoid confrontation. Thus they escape the discomfort of such demands as more solid convictions would impose on them. So far so good. But in shelving the problems they lose also the strength that comes from having convictions (to change the metaphor) with teeth and claws; what avoids fighting can never win battles, nor defeat foes. To be worthwhile therefore, my aim in writing must not be to commend a doctrine which is nebulous and ill_defined. In fact, it is to commend the biblical doctrine, the source and anchor of all that is so tremendous in the Christian faith.

This book is addressed especially to fellow_scientists¹ and fellow-ministers, but I hope that many others will be interested and none will be put off by a few technicalities, but will read on (I make this plea urgently!). By science I shall mean the physical and biological sciences _ those which build on data which is *in principle, accessible at will, to man as man*. (See chap.II ref. 31). 'Sciences' such as psychology and sociology do not quite fit, but much of what follows will still apply to them. Scientists are no more anti_religious than other people, but the nature of their work tends to fix their attention on physical mechanism (*How?*), and so questions of ultimate meaning (*Why?*), go out of focus. Ideas such as 'chance' and 'randomness' are involved here, and definitions quite adequate in science may be very inadequate when we think deeply about things. This can lead to serious loss of understanding, and I shall discuss these two ideas more fully later. Unfortunately, scientists in common with the majority of educated people today, have a very poor acquaintance with the Bible. It has a claim to be the most influential book ever written, and what it sets forth cannot be evaluated at a sitting. So I do not apologize for the early and major attention I have given to it.

I have a different reason for addressing my fellow clergy. Today many of them are suffering not only from a crisis of identity but also from a crisis of belief. Ultimately the Christian faith stands or falls with the authority of its foundation documents; of the Old Testament as the lively 'Oracles of God', and of the whole Bible as 'God's word written' ². If the authoritative witness of the Bible is rejected or belittled what reason have they after all for believing such an otherwise incredible doctrine as the Incarnation ³, which most clergy profess to accept? In this respect a great many seem to have lost their nerve; they are content with such misleading half-truths as "God is love and nothing but love" (contrast John 17.25), which recently appeared in a diocesan periodical. Whereas G. K. Chesterton (I think) once described himself as "prancing with belief", they might be described as "dithering with doubt". Science and the "destructive criticism" of the Scriptures overawe them. I owe it to my readers to say something at least about where I stand in these matters, and why I hold with complete conviction the historic Christian understanding that, in Paul's words, *All scripture is given by inspiration of God and is profitable for doctrine., for reproof. for correction, for instruction in righteousness, that the man of God may be complete* (2Tim.3.16).

Is Scripture the Word of God?

In making up our minds on this question there are the standard arguments drawn from the testimony of Scripture to itself, and from the attitude of Jesus Christ to the Old Testament and to the New 4. These are of primary importance. Impressive too is the immense power the Bible has wielded, and continues to wield, over thoughtful men and women of all sorts in all ages and in many nations; it would be safe to say that no literature anywhere approaches the Bible in this. But I will add three other considerations not so often brought forward.

During the last two centuries or so a great deal of scholarly effort has been devoted to the question of how the books of the Bible have come down to us. The first five books, spoken of collectively as the Pentateuch and of obvious significance in the present context, have received a very full share of attention. The Documentary Theory, largely associated with the name of Wellhausen and still widely canvassed in various forms, was built around the suggestion that they result from the interweaving of several sources, once referred to as J,E,P and D after their presumed authors 5. This theory raises two issues quite distinct but often confused. The first issue is whether the theory is true. Though still accepted in one modified form or another, there are a few scholars who deny it 6. The second issue is whether it matters if it is. I maintain on this that if we accept the Bible's own lofty perspective of the Sovereignty of God, it doesn't. Luke compiled his gospel apparently after careful attention to many eye_witness accounts; but its self_authenticating authority as Holy Scripture is nevertheless recognized at the highest levels. But the important point is this: on biblical premises (my usual basis), God is sovereign over all the significant events of history, a matter which will be discussed further. He is thus able to use whatever detailed instruments and methods He chooses to preserve His message for generations to come (2 Kings 22.8_10; Jer.36.27f; 2 Tim.3.15). How otherwise could they be held responsible for not receiving it? (see Matt.13.14f; John 5.47). All Scripture takes as 'given' the power of God to bring His purposes infallibly to pass (cf Matt.26.53f), and this has an obvious bearing on the present matter. Having given a revelation with immediate and permanent significance He takes steps to ensure its preservation for future generations. Thus although liberal scholars may insist on such things as the multiple authorship of Isaiah 7, this book is nevertheless often quoted in the gospels as God's authoritative word, and Jesus himself used it as such (Luke 4.17ff). The trouble with the scholarly doubters is that their God is altogether too small. Their doubt is misplaced. The Pentateuch, with which we shall be chiefly concerned, does not let us down here: it has its own intrinsic greatness and sublimity, and it is positively supported in this by the rest of the Bible; in fact it is referred to quite frequently by Jesus himself. We may take it therefore for both theological reasons and because of the evidence before us that it belongs where it is, and as we now have it (Matt.9.13; 19.4).

The Sovereignty of God in history and in nature

God's sovereignty is constantly emphasised in the Bible. Thus history, in the widest sense of the word, is never out of His control; He directs it as He will (Ps.135.6f; Prov.21.1; Dan.4.35). It is, in a profound sense, His story. But within this mastery and consistent with it rebellious men and woman may often be allowed to do just what they want and thereby to learn the sad consequences of sinful behaviour (Ps.81.11,12; Hos.4.17; Matt.19.8; Rom.1.24_26). But through all this God remains firmly in control. In the story of Balaam (Numb.22-24) the soothsayer is compelled to cooperate in God's purpose; in the case of the proud Assyrian (Isa.10.5_12), he is allowed to act as he will. But God's purpose is fulfilled in both cases; the avaricious soothsayer and the proud king each work their deserved downfall (Num.31.8; Isa.37.37f). The story of the Pharaoh of the Exodus is similar (Rom.9.17). All these cases illustrate what the Bible means by the Sovereignty

of God; He cannot be thwarted (Isa.43.13).

In the case of nature the considerations are naturally a little different. With history, the common tendency is to think of man (rather than God) as causal agent; with happenings in nature, the present tendency is to think of chance. But while 'chance' is a reality for man (it is a confession of ignorance), it means nothing to God (Prov.16.33; 1Kings 22.34 NIV, REB cf.vv.17ff; see also later chapters).

These considerations bring us to Genesis 1, the story of creation. Suppose the neo_Darwinian account of how things arrived is true; would that at a stroke dismiss the biblical account as "mythical" or at least "superfluous"? Richard Dawkins and Peter Atkins would I suspect answer "Of course" at once; but if so, there is an important possibility they could have overlooked. Reality may have 'dimensions' (see note 8) beyond those they know of. Let me illustrate my point. Suppose someone asks "Why is that kettle boiling?", he might get the answer "Because it's on the gas". A pure physicist (100% such) might find that answer satisfying, but few others would. They would want to know more. "A tired visitor is expected and a kind hostess is making tea". Here the explanation has been extended to a new level altogether. I don't mean that a 'body' has now been introduced as agent, lighting the gas and setting on the kettle; that would be merely adding to the previous mechanistic answer. But the mention of the hostess's *kindness* has nothing to do with mere mechanism, it introduces rather a meaning to the whole thing. It may only be introduced quietly, but it's the most important element of all. Two things are thus responsible for the boiling of the kettle, the physical effects of heat and its manipulation, and the personal attribute of kindness. This suggests that to peremptorily exclude the idea of Providence as "mythical" and "superfluous" in their Grand Cosmology as Richard Dawkins and Peter Atkins want to do is either unfortunately blind or deliberately blinkered.

Of course, this does not prove my case, that there is a Person behind physical reality. Dawkins could have replied that a kettle on a high shelf under a leaky roof had filled with rainwater, overbalanced, hit a gas tap on the cooker and there you are; no need for any hostess. But if he follows this de_personalizing line all the way back 9 he will eventually come to the point where he has to say that 'the whole show' _ our entire Universe (space, time and everything in it, including ourselves) _ is here through nothing more than "Quantum fluctuations in absolute nothingness. These had led also to an infinity of other universes, of which ours (by chance) had its physical constants so exquisitely balanced that carbon atoms and domestic gas and tin kettles and wooden shelves and (still by chance) humans finally appeared." 10 (quote my own). Do they really believe this? Well, well; but does it make better sense than believing in a Creator of wisdom, love and power? One Who appeared among men and women, historically well_evidenced according to the New Testament? Being merely "survival machines, robot vehicles blindly programmed to preserve the selfish molecules known as genes", do they think themselves competent to pronounce on such an ultimate mystery, or to call it "a vacuous existential question"? 11 Apparently they do; but whatever has happened to their self_estimate, let alone their commonsense?

The Crucifixion

On the decisive question of history the Bible makes a profound contribution to this whole debate. It offers, in effect, a naturalistic explanation of the arrest and crucifixion of Jesus of Nazareth. There was priestly jealousy, a traitor's resentment, social unrest, Pilate's fear of Caesar 12. Given these (and a few other common circumstances) the secular historian could be reasonably satisfied that he knew why events took the course they did. "Any

other explanation is superfluous" any atheist might similarly conclude. Yet the Bible writers robustly affirm that there is a truth towering over the merely sociological one _ that this happening was both in broad outline and in finer detail God's doing. Both in purpose and in execution, it was the central act of His plan for reconciling the world to Himself (2 Cor. 5.19). *This Jesus*, said Peter as he preached, *delivered up according to the definite plan and foreknowledge of God, you crucified and killed by the hands of lawless men* (Acts 2.23 RSV). *Sovereign Lord, Maker of heaven and earth . . . Herod and Pontius Pilate conspired with the Gentiles and with the peoples of Israel to do all the things which under Your hand and by Your decree, were foreordained* (Acts 4.24,27f REB). *The cup which my Father has given me, shall I not drink it?* Jesus himself said on his arrest (John 18.11). This case does not stand alone; the Bible is full of lesser events woven in a profoundly meaningful way into the fabric of world history. His death on the Cross was the work of God, however much it was the doing of men. On what authority could anyone deny it?

This example makes clear that while the Bible sustains the view that the events of history can be understood in terms of their historical context, God is still the Sovereign Ruler behind the scenes. The story of Joseph (see Gen.50.20 RV) *Ye meant evil . . . but God meant it [same verb] for good*, puts the biblical position in a nutshell. The fact is, the secularist imagines God in his own image, and naturally He's too small. *You are mistaken*, Jesus said to learned men, *not knowing the Scriptures nor the power of God* (Matt.22.29). In the Sermon on the Mount Jesus was emphatic too about the phenomena of nature; for if God is not here and now sustaining the earth's rotation, holding fixed the dewpoint of water, and here and now ordering the morphogenetic (form producing) processes in plants (Matt.5.45 NIV, REB; 6.28ff) his words are pointless, or worse, positively misleading. Truly, the God of the Bible "holds the whole wide world in His hands" _ immanent in all, and transcendent over all.

The New Testament Message

The next point is rather different. It concerns the authority and transmission of the New Testament message _ that *Jesus Christ, the Lord of Glory . . . died for our sins according to the Scriptures. and that He was buried, and that He rose again the third day, that He bestows the gift of the indwelling Holy Spirit, and that He is coming again publicly to bring justice and peace to this troubled world* 13. Now most men and women of realism and goodwill (at least in the West) would agree that if true, this message is of supreme importance. Indeed, it is hard to conceive of anything which could excite greater longing in a humanity which is fast losing all sense of having any ultimate meaning, purpose, destiny or hope. Yet if this is truly a message from God, and if the views of the many destructive critics of New Testament authority are right, we would have to accept that God had provided for it to be available to us 'moderns' in a highly dubious form; 'shambolic' would not be too strong a word for it. But if this is so, how could we retain any confidence in the message itself? For it would have arrived in our hands as writings called the 'New Testament', which are often unreliable as history, incredible as fact, questionable as doctrine and in some ways seriously misleading as practice¹⁴. Clearly something is wrong; one of our 'ifs' has to go. For the present writer it is without hesitation the presumption that the liberal critics are right. If God is careless, or powerless to give us anything better than the New Testament, how can we put our trust in Him? It must be the critics who are wrong. They are at variance among themselves; their perceptions are constantly changing; and they are immensely dwarfed by their subject matter. Their conclusions are quite unacceptable if one believes in *the God of glory Who appeared to our father Abraham* and through him founded the nation to which were committed 'the Oracles of God', and from which came a long line of prophets who

foretold the coming of a Righteous One and his betrayal and death on a shameful cross (Ps.22; Isa.53; Acts 7; Rom.3). There is an impressive consistency about the biblical testimony, and it heads up to the unique character of .Jesus of Nazareth. Of no one else in all history has anything so impressive been foretold in a way remotely comparable to what was foretold of him. To crown it evidentially is the well_substantiated record of his resurrection, still intact after many determined assaults 15. All this is reason for holding that the Bible is 'God's Word written' (as the Anglican 39 Articles say), to be understood in the sense it conveys to the honest and careful reader. One simple presupposition undermines the destructive criticism which has become so prevalent in theological and religious circles: the *Sovereignty* of the power, wisdom and lovingkindness of God. If these are facts, it becomes impossible to accept that God has allowed the written record of His great acts in history to be transmitted to the vast majority of ordinary men and women in the unreliable form the critics suggest. To doubt His sovereign oversight of the very Bible we have in our hands is to impute fault to God 16. In it He still speaks to the humble listening heart: and to the others Jesus still says, "*You are in error, because you do not know the Scriptures or the power of God*" (Matt.22.29 NIV).

The Record of Creation

What has been written about the New Testament writings applies to Scripture as a whole, and not least to the Pentateuch. On biblical premises, the latter is clearly profoundly important if we are to know the truth about ourselves and our world. Who are we? Have we a destiny? Why is there so much suffering and misery here? Is God a nonentity, or must we conclude that there is no Creator _ only chance and the selfish genes we hear of (which "don't care about suffering because they don't care about anything" 17)? Is science the only hope left? This is not the place to examine the last question: that will come later. The comment to make here is that if science is our only hope the outlook is bleak indeed. But what is the biblical picture?

According to the Bible, God has always been deeply concerned for the heartfelt longings of man, His creature (Ps.107.9), and with Him the less_advantaged sort have always had a particular place. *Ho! everyone who thirsts, come to the waters; and you who have no money, come buy and eat. Yes, come, buy wine and milk without money and without price* is a typical O.T. invitation (Isa.55.1). It is entirely in character with His revelation of Himself in Jesus Christ (whom "the common people heard gladly") that He has provided for ordinary men and women in concert with their fellows and no doubt with help from specialists, a guide at once plain and trustworthy 18. The great historic confessions of the churches (forged not in times of toleration and plenty but more often of persecution and poverty) have acknowledged the Bible to be just such a guide. Indeed, that was how Jesus himself regarded the Scriptures of his day, the Old Testament. In doing so he quite often used language closely resembling the very formula 'the Bible says' which periodically today comes under ridicule 19. It is for this reason among others that notwithstanding the loss of nerve in parts of the church I have based my arguments in this essay unashamedly on the Bible's teaching. The blasts of theological and religious scepticism have historically had a way of blowing themselves out, like other storms. The philosopher Wittgenstein is reported to have said that "philosophical analysis, if properly done, leaves everything as it is" 20. I have the feeling that the same will prove to be true of that sort of liberal criticism which makes the Bible not the Word of God, but only the 'insights', however brilliant, of men.

The Two Books

It remains now to set out clearly two more presuppositions of my argument. In doing this

I shall use the old well-established analogy that goes back through Francis Bacon, Kepler and Galileo to Augustine and Origen: Scripture and Nature are the 'Two Books' through which the Creator Who gave them teaches man (see Luke 12:27f; 24:45; Ps. 104; Isa. 28:23-26). A book can of course be read in different ways; *Oliver Twist* can be read as entertainment, as social comment or as political propaganda. One very influential way of 'reading' the book of nature is science (the poet and the artist know others). The same sort of thing is true for Scripture, which is most obviously designed as a guide to wisdom and as a call to worship. But in the course of its basic 'brief' it has to speak sometimes of physical nature, and in doing so it inevitably overlaps the province of science; the two speak on the same subject for a moment before they go their own ways. Do they in such cases agree in what they say? It is here that opinions may appear sometimes to clash. But we must remember before deciding, how each handles the subject, here physical nature (in the widest sense of that term). Science properly investigates its *mechanism*; the Bible makes its declarations on its *meaning*. In secularist circles today science often strays into the sphere of 'meaning' where it has extremely little (if any) legitimate business. The Bible however need concern itself very little with 'mechanism', since the Creator has given man the means to investigate it for himself (Ps. 111:2). Of course the terms 'mechanism' and 'meaning' as used here need to be correctly defined. In one sense the song of birds has 'meaning' (e.g. as an assertion of territorial rights), yet even so it can be quite a proper matter for scientific interest. But this doesn't alter what has just been said, for bird song is here to science just a mechanism, a means to a biological end where it terminates. Our term 'meaning' relates more fundamentally, ultimate origin to final fulfilment; in that way it expresses what is meant here by 'Purpose'.

From what has been said it would seem to be entirely reasonable (on basic biblical premises). to regard the Bible in a way analogous to that in which the scientist regards Nature; as something fundamentally 'given' _ self-consistent, authoritative, to be understood but not to be argued with 22; sometimes enigmatic and stretching our powers of comprehension 23; liable at times to upset our paradigms 24; challenging us to press on and always rewarding us as we do so. Of course, there are major differences. Science yields its top secrets to the highly gifted; the Bible is there for all, and often yields its top secrets more readily to those less gifted (Matt. 11:25f).

This brings us at once to a second presupposition. When the revelation in Genesis was given, it is surely (rather, obviously) reasonable to suppose that it was given in terms expressly designed for its immediate recipients, to teach them the essential conditions for happy living _ obedience to the beneficent will of the good Creator (Deut. 29:29; cf. Isa. 48:18; Mark 2:22). Their progressive experience in doing so would build up to form a sound tradition for future generations who would thus have the benefit of hindsight. Today's interpreter needs to remember this. Those who take Genesis 1 as providing clues for 20th/21st century cosmologists are, I suggest, following quite a false trail. The creation account was given to an undeveloped nation for the purpose of teaching them their high calling as the people of God before the whole world 25, to be exemplary servants, workers together with God and imitators of Him (Gen. 2:15; cf. 1 Cor. 3:6,9; Eph. 5:1). Suppose we turn again to that definitive verse. Deut. 29:29: it sheds light on several strongly contested points of interpretation. The length of the cardinal 'days' of Genesis is one of them, and this is discussed more fully in a later chapter. Their ordinal numbering is another. This latter imparts two pieces of wisdom. First, the Creator desires an ordered and disciplined life, first things first, a salutary lesson for a slave-mob called out to be God's exemplars, and one perhaps referred to by Moses in his great prayer in Psalm 90:12: *So teach us to number our days that we may gain a heart of wisdom.* Second, it may be recalled that Darwin himself expressed doubts about whether natural

selection does actually entail progress, and no satisfactory reason has been advanced since as to why it should do so 26. However, in the Bible God's creative activity does progress to a climax, which is man (Psalm 8). The ordinal numbers suggest this. Then the early mention of seed_plants and trees calls attention to the importance of green things; they are the start of the 'food chain' (Gen.1.29f). Again, delaying mention of the sun, moon and stars and avoiding giving them their proper names may well be to deny them any prominence as objects worthy of worship: they were regarded as such by Israel's neighbours (Deut.4.19). Some of these points are brought out by Kidner in his commentary 27, to which I am much indebted. Finally, the vivid and rhythmical structure of this first chapter (see Blocher 28) must have helped to fix its substance firmly in the minds of those to whom it was first given: untutored, unable to read and in any case with probably little inclination or opportunity to do so. My own view of Genesis 1 is that it is perfectly compatible with any well_established scientific cosmology, but that it has far more important things to impart than what can be found out with our telescopes, rocket probes and space stations – things of the kind that Jesus spoke of when he said, *I thank You Father, Lord of heaven and earth, because You have hidden these things from the wise and prudent and have revealed them to babes. Even so Father, for so it seemed good in Your sight* (Matt.11.25f). When one considers all the instruction this key but untutored nation needed to fulfil the role which God had prepared for it (see Gen.12.1ff), it seems lacking in commonsense for 20th/21st century readers to treat this record as if it were given to the human race as an introduction to cosmology and anthropogeny. It should be read rather with an eye to the wealth of fundamental wisdom it manifestly contains, and to the prophetic significance of the nation to whom it was delivered²⁹. Later generations should remember this when their dominating interest has turned (as it now has) from wisdom to scientific know_how.

Postscript _ a trenchant evaluation of some (at present influential) destructive criticisms of the New Testament

Rudolf Bultmann, Professor of New Testament at Marburg who died in 1976, maintained " that 'form criticism' of the Gospels showed it was next to impossible to know anything about the historical Jesus Christ". In effect he tried to 'demythologize' the Incarnation. Bultmann has had a profound influence on modern theology (not always in his direction, however). In the review of a recent book, THE SEVEN PILLORIES OF WISDOM 30 by the American writer David R Hall, Prof Howard Marshall of Aberdeen writes, "the author demolishes with wit and elegance what sometimes have been called the assured results of modern criticism" of the Bible, criticism such as Bultmann's. David Hall's terminal ploy in his book is to present an (imaginary) paper obtained, he says, by the (fictitious) discovery by physicists of backward transmission in time by a time_reversal mechanism. This paper (he pretends), was published in Beijing in the Journal of Twentieth Century Studies in January 2090 when China had become the centre of Christian profession, the West, theological liberalism having failed, being sunk into a mixture of mediocre superstitions. The paper examines, by Bultmann's own 'form critical' method, Bultmann's actual treatment of the miracle of the turning of water into wine (John 2.1_12). The result of this learned (serious yet hilarious) analysis by a (future) Chinese scholar is that

"only when the literary form of a twentieth_century work has been determined can the modern reader discern whether its statements are intended literally or humorously . . .the works of Bultmann, which are now little read except by researchers in twentieth_century studies, will be appreciated for what they are _ masterpieces of twentieth_century comedy".

David Hall's book is strongly recommended. I also recommend very strongly C S Lewis's

perceptive essay *Fernseed and Elephants* 31.

NOTES

1 I was ordained in the Anglican non_stipendiary ministry in 1973, five years before I retired from a chair of Plant Biophysics in the University of London.

2 The Coronation Service, cf.Rom.3.2; no.20 of the Anglican Thirty_nine Articles, cf.2Tim.3.16

3 That Jesus Christ is God manifest in the flesh. John 1.1ff,14; 20.28; 1Cor.2.8

4 For the first, lest the argument should seem unacceptably circular see Appendix I; for the second, see J W Wenham, CHRIST AND THE BIBLE Tyndale Press 1972.

5 For sources see THE ILLUSTRATED BIBLE DICTIONARY vol.3, I.V.Press, Leicester 1980

6 e.g. the Jewish scholar U Cassuto. See Preface of his COMMENTARY ON THE BOOK OF GENESIS Jerusalem. 1961.

7 But see J A Motyer THE PROPHECY OF ISAIAH Leicester, IVP, 1993

8 In order adequately to describe or categorize an object we need to specify a certain number of independent pieces of information about it: its position, length, breadth and height are obvious examples. But shape, weight, hardness, temperature, motion, colour etc. and so on are others. The number is quite indefinite, and may include some with personal reference, such as value and purpose. Each such piece of information indicates what we may call (for our present purposes) a 'dimension', and it is by means of such 'dimensions' that we compare things which are sufficiently alike. The idea can be extended to events too.

9 THE BLIND WATCHMAKER p.316; for reliance on authority see *ibid.* pp14,15.

10 Compare the poetic daydreams of P W Atkins, THE CREATION, and CREATION REVISITED W H Freeman. 1981 ,1992; I have quoted these later (my chap. XVI). See also Paul Davies and John Gribbin, THE MATTER MYTH p.227 Viking, London 1991

11 R Dawkins RIVER OUT OF EDEN p.97

12 Matt.26.3f,14f; John 11.45_50; 19.12

13 A few other refs. here are 1Cor.15.3,4,23,51ff; Matt.24;25.31ff; Acts 1.1-11; Rev. 1.7

14 This is hardly an unfair characterization of what many of the leading 'higher critics' have made of the New Testament. The Old follows too of necessity. On biblical premises, God is as much Sovereign Disposer of the ordinary as of the extraordinary: Pss.29; 104; Prov.16.33; 21.1; Lam.3.37ff; Matt.6.26,30; Luke 21.23ff; Rom.11.36; Gal.6.7 etc imply this. If critics such as Bultmann are right the Gospel message doesn't seem to be available to the common man in a user_friendly form, and the great LORD of History seems to have acted with careless indifference towards him. I cannot accept this.

15 Biblical references are many: Mark 16.6f; Luke 24.25ff, 44ff; John 20.19_29; 1Cor.15.5f; 2Cor.5.18ff; 1Pet.1.20f; Rev.1.18. See also C E B Cranfield THE GOSPEL ACCORDING TO ST MARK pp.462ff (CUP, Cambridge 1959)

16 This is an *a fortiori* argument about the ways of God of a type sanctioned by Jesus (Matt.6.30; Luke 11.5_13; 18.1_7), as well as often used in the Old Testament (Exod.4.11; Ps.94.9).

17 Richard Dawkins RIVER OUT OF EDEN pp.131_133

18 Deut.30.11_15. There is a strange idea abroad that the very desire for an authoritative guide is a denial of a mature spirituality rather than a consequence of it. The logic of this idea is never explained. The words of Jesus in Matt.11.25f, spoken with peculiar emphasis, are very much to the point here. So are Paul's in 2Tim.3.15 and 1Cor.1.26_29, and the Psalmist's in Ps.119.99.

- This formula is virtually synonymous with 'It is written' or 'The Scripture says' as used by Jesus: see Matt.4.4,7,10; 9.13; 15.4,7; 19.4,5; 21.13,42; Mark 12.10,24; 14.21,27; Luke 4.17,21; 7.27; 21.22; 22.37; 24.27,44_46; John 5.39; 6.45; 7.38; 15.25.
- Quoted by A R Peacocke in his Bampton Lectures, CREATION AND THE WORLD OF SCIENCE (Clarendon Press, Oxford, 1979).

21 It can also be seriously misread, especially when the reader wishes to find fault. I hope I have myself avoided this folly, as well as that of misapplying the 'book analogy', which must be kept within the bounds justified by the parallelisms (see later chaps. XIV, XV, XVI)

22 Science has often been recognised as an authoritarian discipline. No scientist is a free_thinker _ cf. T H Huxley: "Sit down before fact as a little child . . follow humbly wherever . . Nature leads, or you shall learn nothing" (letter to Charles Kingsley, 23 Sept 1860); or Sir Cyril Hinshelwood's Preface to his CHEMICAL KINETICS OF THE BACTERIAL CELL (1946): _ "It is better to be put in one's place by Nature than by any other authority". Hinshelwood was President of both the Royal Society and the Classical Society. As biblical parallels might be instanced the words of Jesus in Matt.22.29, *You err not knowing the Scriptures*, or Paul's in Rom.4.3, *What does the Scripture say?*

23 So the wave_particle question was not an 'either_or' but a 'both_and'. Compare the paradoxes of Gen.50.20 (RV, NIV), or Acts 4.27,28 (RV, NIV).

24 Thus Classical Physics was dethroned and Relativity put in its place, and the Uncertainty Principle displaced Determinism. All these changes were not for fashion's sake; they resulted from a further study of the Book of Nature.

25 Gen.12.1_3; 15.5,6; 17.1_5; 18.17,18; 22.1_18; Rom.1.1_5; 3.1; and Rom.chaps.4,9,10,11; Eph.2.11ff; etc.

26 The concept of anything like 'progress' (*amoeba* to man) is hardly mentioned in the books of the antitheistic authors discussed; they seem to have nothing worth saying. See Dawkins' THE BLIND WATCHMAKER pp.178_181, or consult the index in Dennett's DARWIN'S DANGEROUS IDEA. In the Bible it assumes main prominence.

27 Derek Kidner GENESIS An Introduction and Commentary (IVP, Leicester)

28 Henri Blocher IN THE BEGINNING (IVP, Leicester 1984)

29 History is not something capricious and uncertain, according to the Bible; it follows a course sovereignly directed by God, however paradoxical this may seem to our limited understanding; see Gen.15.1_16; Jer.29; Matt.24; Acts 1.1_7; 15.18; Rom.11.25f; 1Cor.15.3,4,23,51ff; Gal.4.4 etc.

30 David R Hall THE SEVEN PILLORIES OF WISDOM (Mercer Univ.Press, Macon, Georgia 1990); strongly recommended.

31 *Fernseed and Elephants* has given its name to a book (Collins. Fontana 1977), and is in other C S Lewis titles too.

God, the Cosmos and the Bible >>[back home](#)

The Bible gives us clear ideas about God. His attributes within Personhood, relevant to the present issue of creation, are holiness, righteousness, wisdom and power. Moreover, He speaks to men about things they need to know. As Eternal Spirit, He is both transcendent (sovereign over all and in no way confined within the world); and immanent (present and active in every place and on every occasion). Space and time are part of His created order. The biblical witness to the Creator establishes the validity of the scientific enterprise. Science can thus enunciate laws which are *descriptive* of Nature's ways, but it is God's holy and self-consistent Will which is *prescriptive* of them.

"IN THE BEGINNING, GOD . . ." With these majestic words the Bible introduces us to a truth (as I believe it to be) of prodigious significance: the Ultimate Reality, behind all lesser realities, is Personal. For that is what these opening words mean. Man is not "alone in the unfeeling immensity of the Universe"¹, the product and plaything of titanic physical forces which neither care nor know what they are doing. His existence instead is set before a Presence – august, tremendous, all-seeing². This is the teaching we have to consider, first in its more abstract concerns, then in later chapters as it touches His creature man as seeker, hearer and fellow-worker.

Clearly, before we can think about the Bible's doctrine of Creation intelligently we must know something of its doctrine of God, sadly no longer a matter of common knowledge. What is God the Creator like? Is it possible to know anything about Him? That we have definite but scarcely-acknowledged images in the backs of our minds may well be brought to our attention by looking at the woodcuts in Fig. 1. How many, unreflectingly perhaps, entertain such pictures as these as illustrating not merely mediaeval conceptions of the Creation, but *biblical* ones? Of course they do nothing of the sort. Even the magnificent paintings of Michael Angelo (see fig.2) might be seriously misleading so far as the biblical teaching is concerned, unless we are on our guard. It was not for nothing that Moses warned Israel that they 'saw no form' on the day when they received the law at Sinai, lest they attempt to make an image of God³. Any such representation would inevitably, he implied, be a misrepresentation. We need to clear our minds at the outset, therefore, of any ideas which may come into this category.

What are the essential characteristics of God the Creator then, as the Bible portrays Him? To repeat, He is personal, profoundly so⁴. 'God said', 'God saw', 'God called', 'God blessed', are some of its recurring themes: and *God created man in his own image* puts it in a nutshell. The rest of the Bible amplifies this to the limit with its descriptions of God as Shepherd, Husband, Friend, Lover, and finally Heavenly Father. It is strongly implied in the Bible's constant emphasis on the thanksgiving due to God for His faithfulness to His covenanted love. Then God is *Spirit*, essentially invisible to human eyes⁵. He may appear in some impressive way, the Bible records, in what is called a 'theophany'; but to experience this is not to 'see God' in the accepted sense⁶. He is never, again, to be thought of as just one agent among others, even as the greatest; God as Spirit has an order of being transcendent and ultimate. In fact all that we regard as 'agents' have their own being itself only in and through Him⁷. Space and time are integral parts of His Creation too; God is localized in neither^{8,9}. For biblical expression is concrete and not abstract¹⁰ like that of science; space and time are not distinguished from the objects and events which occupy them. Such a passage as Isaiah 44.24, *I am the LORD... Who stretched out the heavens alone... Who spread out the earth* is an assertion about the origin of space itself as well as its contents, and the same sort of thing can be said of time¹¹. This has

long been recognised by some of the greatest Christian thinkers, such as Augustine of Hippo (AD 354_430); we shall meet him again.

Fig. 1 God's creation of the world in six days, as described in the book of Genesis. From a Latin Bible of 1511, printed in Venice.

Fig. 2 Creation of Adam. detail of the ceiling fresco in the Sistine Chapel, Vatican, by Michelangelo, 1508-12 (Copyright not consented yet)

Two attributes of God often emphasised in the Bible are His *holiness* and His *righteousness*¹². They are not the same. The word 'holy' in the Hebrew Scriptures probably comes from a root meaning 'separate'. 'distinct' ¹³. Most often 'holiness' has an ethical sense, but it is also connected with the act of creation. When so used it indicates the never_to_be_forgotten distinction between God and all that He has made, between Creator and creature ¹⁴. It is thus an explicit denial of pantheism, the idea that God is simply the sum_total of all things.

'Righteousness' is an idea whose main thrust is again ethical. In man it means conformity to God's moral and spiritual law which, designed for his good, is the standard, objectively confronting him, by which his conduct is to be judged ¹⁵. As applied to God, its meaning must necessarily be a little different, for there is no such standard external to Himself to which He should conform: He is His own standard. It is therefore rightly understood as self_consistency, and is a highly significant emphasis of both Old and New Testaments. God is never arbitrary or changeable: He abides by His declared principles and stands by His covenant ¹⁶. His righteousness means *faithfulness* to both warnings as well as promises; *He cannot deny Himself* (2Tim.2.13). All this has profound implications for the physical aspects of the creation. Righteousness clearly implies self_consistent ethical principles, and faithfulness, predictability, and it would be strange indeed if these characteristics of the moral order were not reflected also in the physical if God is the author of both. In fact the Bible often links the two closely, as in this passage from the book of Job discussing wisdom (Job 28. 25_28, RSV: and 17):

When He gave to the wind its weight,

and meted out the waters by measure;

When He made a decree for the rain,

and a way for the lightning of the thunder;

Then He saw it and declared it;

He established it, and searched it out.

And He said to man,

"Behold, the fear of the LORD, that is wisdom;

and to depart from evil is understanding."

This is very apparent too in the even more familiar passages of Gen.8.22 and 9.8_17,

where the God whose Will it is which upholds the moral law by judgement and mercy (as the story of the Flood indicates), upholds also the laws of physical nature, actually giving nature's regular phenomena as signs of His covenant faithfulness 18. This is surely a remarkable outcome of Biblical theology; it accounts at one stroke both for the validity of the scientific enterprise 19, and (in spite of the Second Law of Thermodynamics, the most famous of all scientific laws and which, as commonly understood, predicts an ultimate 'heat death' for the universe) fills the cosmic horizon with hope 20.

Two other things on which the Bible lays stress are the wisdom of God displayed in all He does, and also the sovereignty of His acts (e.g. 1Tim.1.17; 2Kings 19.21_31). Discussion of the latter will be dealt with towards the end of this chapter, but the former is of immediate concern; it is often invoked in support of the 'design argument'. Some important findings in physics and cosmology (such as the famous wave_particle duality of the electron and other particles, and the effect of gravity on light) have been of exceptionally teasing character; they have seemed to run counter to the age_old intuitions of even the most eminent thinkers. Nevertheless several have succumbed in time to handling by abstruse mathematics _ to developments in the latter which have had to wait idly by till their time came. Einstein's use of tensor calculus in his General Theory of Relativity is a case in point, but it is by no means the only example of this historical wonder. Order is still being sought and found in the crowded world of particle physics by looking for such abstract things as 'mathematical symmetry' and 'abstract beauty'; but (to anticipate a bit), it is difficult to trace any connection between this amazing power of the human mind and the 'selfish gene's' use of natural selection! Two and a half thousand years ago at the birth of Greek science, the best human brains could have been little less acute than Einstein's; even five thousand years ago this might still be true. How could the 'selfish gene' and 'natural selection' have generated such genius? No doubt the brain of five thousand years ago was a useful thing; but it would seem that it had powers vastly beyond what was needed for breeding success, the 'selfish gene's' speciality. As John Polkinghorne (himself an eminent physicist) suggests, the ability of the human mind to probe the ultimates of time, space and energy can hardly be attributed to the self_promoting efforts of this little assemblage of atoms, the gene 21. Surely it makes better sense to believe that a wise and sovereign Creator inbreathed His Spirit into a created being to convey His own image, and so "to think His thoughts after Him" as Johann Kepler, the great astronomer, exclaimed. "What is the chief end of man?" was the first question in the famous Shorter Catechism of 1647. It answered. "to glorify God and enjoy Him for ever". What would neo_Darwinism's answer be? Hardly anything so happy, and so consistent with almost universal human intuitions.

Augustine on Space, Time and Matter

Having raised the subject of the 'ultimates' of the universe it might be illuminating to recall the thoughts of one of the greatest minds in the Christian church, Augustine of Hippo (AD 354_430). He was himself a firm believer in the God_giveness of the Scriptures: "What Scripture says, God says"22. A millennium and a half before Darwin he made some profound observations on the subject of God as Creator 23. He imagines a "fickle_minded" man wondering why God "should have allowed countless ages to elapse" before He undertook the work of creation. "What was God doing 'then' ", i.e. before He called the creation into existence? Augustine's answer is brief and to the point: there was no 'then', for time itself is part of the created order. God "made all time; He is before all time; and the 'time', if such we may call it, when there was no time is not time at all."

Augustine deals in the same way with space 24. "How did You make heaven and earth?"

he muses. "Clearly it was not in heaven or on earth that You made them . . . Nor was it in the universe that You made the universe, because before the universe was made, there was no place where it could be made." So space too is part of the created order. So also, of course, is matter: "Nor did You have in Your hand any matter from which You could make heaven and earth, for where could You have obtained matter which You had not already created . . . ? Does anything exist by any other cause than that You exist?" Augustine therefore firmly takes the view that space, time and matter are all alike elements of the creation, all alike given their existence by God the Creator.

This view calls for two comments. The more important is that it is thoroughly biblical; that in fact was Augustine's intention. It accepts that God the Creator is not confined to our space_time continuum; He operates from His '*holy and glorious habitation*', from a realm that is ineffably greater and more wonderful 25. That He is often spoken of in time_space language ('*enthroned in the heavens*', '*Thy years have no end*' 26) in no way invalidates this conclusion. Even the ineffable has sometimes to be put into words.

The second comment is less important but still interesting. Einstein's Theory of Relativity takes a view of things rather like Augustine's. To the physicist of today space and time are no longer what they were for Newton, together forming a continuum 27, otherwise empty but into which can be introduced (or from which withdrawn) material bodies and energy, leaving it unchanged in itself. According to the view of General Relativity, space_time must be thought of as modified locally by the presence of bodies with mass; everything 'belongs together' and affects everything else (cf. Heb.1.10ff).

Theism and Deism

One of the findings of science has been that physical nature when reduced to its simplest elements obeys mathematical laws with extreme precision: witness the movements of the planets or the focusing of light in optical instruments. What lies behind this precise behaviour? A very common (if usually unexpressed) view is that it is the evidence of a *precise and faultless mechanism* behind things, a matter touched on earlier. A change in one element of the mechanism causes a change in another. and ultimately the effect spreads through the whole scheme of things with (in simple cases) precisely calculable results. This is broadly the 'mechanistic' picture of nature, (though it would have to be qualified now in the light of the Uncertainty Principle and Chaos Theory). Those who believe in one God as Creator may for present purposes be divided roughly into two: deists and theists (from the Latin and Greek words respectively for 'God'). The term 'deists' is popularly used of those who believe that God has created nature as a mechanism which can run on its own; like a clock, it has only to be 'wound up' and then it can be left to look after itself. The way it works can be found out by careful examination, for it has been designed around mathematical and mechanical rules which govern its behaviour calculably. The famous Archdeacon Paley argued somewhat from this standpoint. The theist however believes that nature is *held in being every moment* by its Maker; the autonomous mechanism of the deist is replaced by the energetic, consistent, wise and purposeful Will of its Maker. *Propositional revelation* (such as that in Mark 13 or Romans 1) is a positive requirement therefore if we are to understand how nature and history move onward with meaning to a foreordained goal; with deism it is clearly otherwise. Both beliefs have problematical questions to answer: deism is ill_at_ease with what is commonly called 'miracle' 28 of course; theism on occasion insists on it. But what must here be made clear in the dispute with neo_Darwinism is that the Bible's teaching is distinctly *theistic*; and to this matter we must now turn.

Biblical theism and the activity of God

That the universe owes its *continuing* existence to God is made plain in Scripture in a number of comprehensive statements. For instance, Colossians 1.16,17 speaks of *the Son of God . . . that all things were created by Him . . . and in Him all things hold together* (NIV); Heb.1.3, of the Son as *upholding the universe by His word of power* (RSV); Revelation 4.11, *You created all things, and by Your will they were created and have their being* (NIV); and the same truth is emphatic in the great creation Psalm, 104. The Bible does sometimes speak as if nature possessed a God-given autonomy to act on its own, within limits (e.g. Genesis 1.22; Job 39.5ff; Mark 4.27f); but its language in such cases is hardly definitive. It is perhaps in some of the most intimate passages that God's personal involvement comes out most irresistibly. In the Sermon on the Mount Jesus speaks of God Himself *feeding the birds* and *clothing the grass of the field* (Matt 6.26,30), or *making His sun rise . . . and sending His rain on the just and the unjust* (5.45). In their context these statements are really pointless unless God is understood to be there_and_then personally the responsible Doer; how could they convey assurance to the troubled disciple (as they are clearly meant to) if that were not the case? Again, He is the One who *forms* the tiny growing foetus in the womb (Jer 1.5; Ps 139.13ff), and *directs the course of history* (Exod.9.13ff; Prov.21.1 NIV; Isa. 45).

But the Bible does not attribute only the pleasanter aspects of things to God. He feeds the carrion eaters and the carnivores (Luke 12.24; 1 Kings 17.4ff; Ps.104.21); He sends earthquakes (Num.16.30);. plague (Exod.15.26); storms at sea (Ps.107.25f, 29f, cf. Mark 4.39) and locust swarms (Amos 7.1f). In all these He is the Doer of the commonplace as much as of what men call the 'miraculous' (cf. Matt.10.29_31; Prov.16.33). The biblical writers go further even than that; the large scale movements of nations are His ordering, in both judgement and mercy (Jer.5.15; Acts 17.26). He is thus the Creator of history as well as of the physical universe (von Rad 29). These biblical announcements can be astonishing and deeply perplexing to the modern reader (as they sometimes were to the prophets themselves, see Hab.1.5ff). We have recalled them here because for most of us "our God is too small"; the Bible's vision of the Creator God is tremendous. They raise many difficult questions for thought (their denial does so equally), but these lie mostly outside the scope of this present essay. It is enough to say that the New Testament with the Old, answers them all in one way or another, as far as we now need to know.

This introduces another aspect of Biblical teaching, strikingly different from the picture presented by Darwinian fundamentalism. *We are fearfully and wonderfully made*, the psalmist says (Ps.139.14); our very ability to know anything at all is a gift from our Maker. It comes through the faculties He has given us _ sight, hearing, understanding (Exod.4.11; Job 35.10f; Luke 24.45; Acts 9.17f). These are obviously limited; our optical window on the world is confined to an mere octave of the vast electromagnetic spectrum, a limitation instrumental know_how can lessen but never remove. The Bible in consequence insists that now we *know in part* (1 Cor 13.9), an oft_repeated emphasis. The book of Ecclesiastes states it very poignantly:

God has made everything beautiful in its time: also He has put eternity into man's mind, yet so that he cannot find out what God has done from the beginning to the end (Eccles.3.11 RSV, cf. 8.17 REB)

a statement with which the Uncertainty Principle and Chaos Theory are in clear accord. Ecclesiastes, which takes its cues (as all science does) from evidence provided by the physical senses 30, (evidence which is *in principle accessible at will to man as man* 31), is very instructive. When confining himself to this category of evidence, its writer comes again and again to the same conclusion as that which apparently forces itself on Jacques Monod, Richard Dawkins, Daniel Dennett, Peter Atkins and other scientifically_gifted

antitheists: *Meaningless, meaningless, all is meaningless* 32. For 'meaning' is a category that belongs to mind, and if we are convinced that there is no Mind ultimately behind things, how can there be at bottom any real meaning in them? The mind that is entrapped in this persuasion is like that of the unknowingly colour-blind or musically deaf; all its protestations about being "right, gloriously right" seem to be only a whistling in the dark.

Science and God

I will close this chapter with what may seem to be two bold claims. First, in the light of all that the Bible proclaims about God it would seem that a cosmos created and upheld by Him would be entirely congruous with the one which scientific research as well as common experience has disclosed. There is the fundamental law-abidingness in the physics of Nature, a universal reign of law, often exhibiting mathematical elegance and beauty; abundant causes for amazement and admiration; growing indications of purposiveness in the biological world; and finally the endowment of man with appreciation, understanding and a sense of moral obligation in life. Everything is consistent with the expectations the Bible raises. Has science uncovered any well-established features which would deny this? I maintain that it hasn't. But if one were to substitute any one of the gods of the pantheons contemporary with Genesis _ Osiris, Marduk, Baal, Odin, Zeus _ this conclusion would be betrayed. Finally, science has come to acknowledge two important things already vital to man in the biblical picture: first, that everything material, stars and sparrows alike, grows old and perishes 33, and second, that there are inescapable limits to human curiosity about the future – the Principles of Uncertainty and of Chaos Theory are two such (Eccles.3.11).

My second claim is this: the Bible asserts that it is God Himself who teaches man the principles of what we now call 'scientific method', and its benefits. Isaiah does this in an unselfconscious passage at the close of his chapter 28. How does the farmer discover the way to grow his crops successfully? or how to separate the seed_crop from the refuse? We would now say "By trial and error", or with a little more sophistication, "By observation and experiment". This is of course the foundation of the scientific method. Isaiah's significant comment is, *his God teaches him*, just as Hosea later remarks that (unrecognised, alas) it was God *Who taught Ephraim to walk* (Hos 11.3). All this is related to the charge originally given to man at creation: *replenish the earth and subdue it* (Gen 1.28). It is spoken of in a different sphere by Jesus Himself (John 5.19f): and we too, in our practical science learn by watching the Creator at work. This opportunity for man to learn arises from God's 'immanence' in His creation, though like Ephraim whom God taught, most never rise to this realisation. But scientists like Kepler, Faraday, Clerk Maxwell and Lord Rayleigh, all great Christians, were by no means *rara aves*. If these realizations escape their thinking, thinkers themselves however brilliant, surely remain short of the intended enrichment of human life and understanding.

In the light of all that this chapter has discussed, it is not surprising that although other cultures have had their brilliant and profound thinkers, it was in the West, so deeply influenced by the faith of the Bible, that science really 'took off' 34.

Postscript: What of 'miracle'?

It was maintained above that science has no insuperable difficulties with any events plainly_recorded in the biblical narratives. What about miracles then? It can be said in reply that some major events regarded as such, like the crossing of the Red Sea (Exod.14) or the drought in Elijah's day (1Kings 17), might perhaps be merely abnormal weather phenomena if we knew all the facts: but even so they would still satisfy the biblical requirements. There are many other events however which cannot be regarded in this

way. The death of the firstborn on the passover night (Exod.12.29ff), the feedings of the five and four thousand by Jesus (Mark 8.13_21), and the healing of the lame man by Peter and John (Acts 3) are examples from among very many. These are undeniably meant to be understood as special events, clear acts of God; how can they be reconciled with science? My answer is to stress the biblical insistence on the sovereignty of God over all events without exception: He is related to history as a *human* author is related to *his* story. This is an analogy I shall develop later; for the moment I will say no more. But men and women are but children to Him, and His concern for their creaturely needs means that in the ordinary course of events He acts in a way that they can count on, that is, take for granted. How long would they last if gravity, or the conservation of matter, or fire, couldn't be relied on to behave always in the same way? Life would be impossible! That is why God ordains nature's regular uniformity 35. However, where men and women ensnared through evil ways (Ps.107) need to be recalled to God-consciousness, He may act outside this set pattern in the way commonly called 'miracle'. In other words, the Bible implies that nature's law-like behaviour is not controlled rigidly by cast-iron mechanistic laws, but by the faithful active providential *willing* of the God "Who holds the whole wide world in His hands". This biblical view is perfectly consistent with the scientific world picture, for truly miraculous happenings on this understanding are not subject to man's beck and call, as all evidence *accessible to science* essentially is. Two other points are important here. First, biblical miracles are never the outcome of human agents given powers to use at their own discretion. Every biblical miracle is an act of God *at His own discretion* (Heb.2.1_4, cf. Mark 9.28.29; Acts 19.11); the human agent is called_in as a "fellow_worker". The second thing follows from all this: the miraculous happening is not susceptible to scientific investigation at all. In fact, science can have nothing to do with it, except to acknowledge what has been publicly observed. But whether this biblical teaching is accepted or not, it cannot be denied that it makes entirely consistent sense, which is the present issue. The subject will come up again.

NOTES

- Jacques Monod, CHANCE AND NECESSITY, (Collins, London, 1972)
- Gen.16.13; 28.16f; Pss.90,139; Prov.15.3; Heb.4.13
- Deut.4.12,15,16
- This is a quite inadequate statement. The New Testament reveals God as a Trinity of Persons: Father, Son and Holy Spirit, One God. He is Beyond Personality, as C.S. Lewis put it. It is this trinitarian nature that gives meaning to love *within* the Godhead, from whence it spills over into the Creation (John 3.16 with Gen.22.2ff).
- John 1.18; 4.24; 1Tim.1.17
- Exod.3.2_6; Jud.13.1_25
- Acts 17.24_28
- John 4.20_24
- Ps.90.1_4
- See how the writer of Ps.139 expresses God's omniscience (vv.2,3,4), omnipresence (vv.8,9,10), omnipotence (vv.13,14,15) and moral purity (vv.19,20,23). All are in highly concrete terms.
- Ps.102.25,26. When God decreed that the heavens, the work of His hands, should be mutable, He established time as a feature of the cosmos; Hebrew thought expresses this concretely. See also Heb.11.3, which is literally.. 'the ages have been framed' (RVM).
- For their connection with God as Creator see Isa.40.25,26 and 42.5,6
- See Lev.20.24_27; 2Cor.6.17; Heb.7.26
- See e.g. Ps.102.19,25_27; Isa.6; 31.1,3; 57.15; Rom.1.25; Rev.4.8_11 The *holiness* of God is a very important emphasis of the whole Bible, concerned especially with the *distinctive separation* between God and creaturely being.
- Deut.6.18_25; Isa.28.17; Luke 1.6; Rom.2.12f. cf. Matt.22.36; 25.31f
- 'Covenant' is an extremely important biblical idea. See Gen.6.18; 17.1_8; Exod.19.5;

Ps.103.17,18; Jer.31.31f; Luke 1.72; Matt.26.28; 2Tim.2.11_13

17 See also Ps.136.5_9; Matt.5.45,48. The important idea of 'covenant' applies to both; see Ps.89.34_37; Jer.33.25,26

18 This teaching is integral to the Bible: compare Gen.8.21,22; 9.11_17 with Pss.36.5,6; -119.89_91; Matt.5.45

- See R Hooykaas. RELIGION AND THE RISE OF MODERN SCIENCE (Scottish Academic Press, Edinburgh. 1973)
- Rom.8.18_25; Rev.21.1ff

21 As Richard Dawkins implies; his 'selfish gene' can see no further than self interest. On the same and related points see also Steven Weinberg, DREAMS OF A FINAL THEORY (Hutchinson, London 1993); and John Polkinghorne. SCIENCE AND CREATION (SPCK, London 1988).

22 CONFESSIONS, xiii.29 Penguin Classics,1961. Augustine wrote c. AD400.

- Ibid.. xi. 13,14
- Ibid.. xi.5
- Isa.57.15; 63.15; 1Tim.6.16
- Pss. 123.1; 102.27

27 For Newton, of course, they were not a *joint* continuum.

28 Following the late Donald MacKay we may define the biblical use of the word 'miracle' as indicating *an event in the visible world which comes to those present with the force of a special revelation from God*. It is not implied that it is necessarily a 'violation of natural law' as Hume thought _ and as many still think. The miracle of the crossing of the Red Sea had probably a perfectly 'natural' cause (see Exod.10.13; 14.21); and the miracle of Mark 4.35ff may well have been similar. What made the events 'miracles' was that on these special occasions *God chose to reveal himself as the Doer*, normally unseen.. (Ps.77.19; 107.23ff; cf.Prov.25.2). This gave the 'natural' happening the significance of a 'special revelation' or 'miracle' in the Bible's sense.

29 von Rad, G. GENESIS (SCM, London 1961)

30 Eccles.1.8,14; 4.3; 5.13; 6.1; 9.11

31 M B Foster, MYSTERY AND PHILOSOPHY (SCM, London 1957) gives this as the true criterion for scientific evidence. Charles Singer writes in the same vein. "The demand for observation and for experience that can be repeated at will, had created science as we know it"; A SHORT HISTORY OF SCIENTIFIC IDEAS TO 1900 (Clarendon Press. Oxford, 1959) Of course what now seems to be a well established picture of world-structure extends far beyond and above the evidence as just defined; that is not in dispute. *But this evidence remains its essential foundation*.

32 Eccles.1.2; 1.14; 2.1: 2.21; 3.19; 4.4; 5.10; 6.9; 9.9; 11.8; 12.8; a selection of references is given. The translation 'meaningless' is from the NIV; 'futility, utter futility' is the REB; 'vanity of vanities' is AV, RV. RSV, JB and Isaac Leeser. The Second Law of Thermodynamics (on this level) reminds one of the same thing.

33 By most of the great thinkers of antiquity the stars were considered unchanging. The Psalmist saw things differently (Ps 102.7,11,25ff).

34 See Colin A Russell CROSS_CURRENTS: Interactions Between Science and Faith (IVP Leicester, 1985); Brooke, J H SCIENCE AND RELIGION: some historical perspectives (Cambridge UP. 1991); and Jeeves, M A and Berry, R J SCIENCE, LIFE AND CHRISTIAN BELIEF: A survey and assessment (Apollos, Leicester, 1998); all strongly recommended.

35 This is the way the Bible regards things like the rainbow (Gen.9.16) and the moon (Ps.89.37); they are public reminders of God's faithfulness to His creatures' needs and expectations

Approach to Genesis >>[back home](#)

The Bible in various ways addresses the reader as the Word of God, as the Creator speaking publicly to men and women, explaining Himself to them and them to themselves. To do it justice therefore Genesis must be approached as a communication from God, not as myth which however meaningful is a human construct. Its relation to primitive creation myths and to scholarly theories about its origin are both considered.

As we enter this third millennium Genesis presents us with a view of the world and of human life radically different from that of our post_modern culture. Few people today however know it well enough to have any serious opinion about what it means us to understand; that is often true even of such relatively familiar parts of scripture as the Sermon on the Mount. I am frankly a propagandist, and I am writing for those who are concerned to find *a philosophy for life* worthy of directing with conviction their whole thinking and living. My programme will be therefore to set out as fairly as I can the Bible's positive teaching in Genesis about our human existence so that first, its own wonder, coherence and self_consistency can be appreciated; and second, so that its degree of harmony (or otherwise) with its great present day rival, secularist neo_Darwinism, may be intelligently assessed. In doing so I shall often use the phrase 'on biblical premises'. This will not mean that I am taking for granted what I want to prove, but simply that I am clearing the logical ground to make plain where my argument takes off.

With all this in mind we have already examined the teaching of the Old Testament about the character of the God it proclaims as Creator, making man in His image and giving him dominion over all the work of His hand, and I hope have concluded that this is fully in keeping with the success story of the scientific enterprise in so far as it concerns the physical cosmos; for the cosmos has proved to be *a rational unity, subject to law and order, able to sustain a wealth of life forms, and moreover, open to investigation through our physical senses*. Thus, men and women have come to realize with surprise and delight that they have the powers to fathom already many of its profoundest workings _ a fact Einstein himself declared 'incomprehensible':

"The only incomprehensible thing about the universe is that it is comprehensible"1.

Men have indeed found themselves creating mathematical systems of extreme abstraction and beauty which subsequently, (sometimes long afterwards), mirror and master nature's profoundest depths 2. Up to this point therefore, science and biblical teaching seem to be in full accord. In harmony with this is the further belief that God Who at creation had appointed man His vicegerent 3, would have given him and his race in due course *an inscripted account* of His creative work (I am referring of course to Genesis), to be passed on to future generations; and that this would stress not mechanism (which He had already given man faculties to 'search out' and to 'ponder' for himself, Ps.111.2), but purpose and final meaning (which must otherwise remain unknown) 4. To say this is not, I maintain, special pleading; rather it is something which would have surprised us if things had been otherwise. However we must examine the Genesis story in some of its more problematical details before we can see how the whole relates to neo_Darwinism.

The significance of Genesis

Genesis is the first of the five opening books of the Old Testament known collectively as the Pentateuch. It was attributed by the Jews of Christ's day to their great lawgiver

Moses. That would give the Pentateuch a considerable antiquity, for the date of the exodus from Egypt under Moses was around 1300 BC. The Jews of Christ's day believed that God had spoken to Moses in revelatory fashion 5. This gave the Pentateuch divine authority, a tradition Jesus accepted 6. Is that enough however for our 21st century? What shall we say of the Koran believed by Moslems to have been revealed to Muhammad about AD 616? And didn't Joseph Smith who founded the Church of Latter Day Saints in 1830 make a similar sort of claim for the Book of Mormon? And haven't there been many others? 7 This is no place to try to discuss all these in detail (for some of these convictions are held very conscientiously); but I must state a particular reaction of my own. The Bible says that God is the sovereign Creator of wisdom, righteousness, power and love. But humanity's selfish behaviour, passion and violence have been through all history the same as our century knows only too well. In these circumstances the early provision by God of *an inscripted, lucid, publicly_accessible "Directory for Happy Living"* is not an unreasonable expectation; (also, so are competitors). If we mean business therefore, we cannot deny the wisdom of examining the Bible for ourselves. But we must give it the opportunity to do so; no one can do this for us. The reward may be tremendous: an answer to those probing questions, *Has our existence any purpose? Does death end all?* and so on. The answers to such riddles are beyond the scope of science 8. But the Bible answers them all with authority 9. And that brings us to Genesis.

Why the Bible?

Of course, the Bible came through human authors, and no doubt its individual books have been edited by human editors. But it is the Bible's fundamental understanding of man that God made him to be His fellow_worker in a junior capacity (1Cor.3.5_9; Luke 22.29), so there is nothing in this human involvement to surprise us. The 'programming' of revelation (what comes earlier, what later) would surely reflect God's sovereign wisdom; an earlier word may well cast light on a later and greater one; but in its turn receive light from the latter. Abraham's sacrifice of his son Isaac is a case in point (Gen.22.1ff; Rom.8.32; John 3.16).

This common pattern of things in the Bible arises from and confirms its unity. Take for instance a prophecy of local import (Isa.7.10_16; 8.3f) about the historical predicament of Judah. This came as a promise to the nation; but its early fulfilment also brought a powerful reassurance to the godly among them of the coming certainty of a divine act of far greater significance hundreds of years later (Isa.9.1_7). Matt.1.22f ties the two together through the common use of the name 'Immanuel', and each thus adds substance to the other, Richard Dawkins' Hebrew, Greek and historical scholarship notwithstanding 10!

This is, the Bible implies, the way in which God teaches man science too (Isa.28.23_26); Newton's falling apple gave him his clue to planetary motion. There is no reason therefore to doubt *that the very Bible we now have in our hands* is to be regarded as God_given as we face our historically new and highly important question: what light can the Genesis account and neo_Darwinism throw on each other?

The Paradox of Double Agency

Here we must face up to a fundamental paradox which permeates the whole Bible and apart from which much there cannot be fully understood. A simple example is in Genesis itself. Joseph's brothers out of envy had sold him as a slave into Egypt where he rose to be Prime Minister. Years later the whole family had to migrate to Egypt because of famine. The old father Jacob died there, and the brothers fearful that Joseph would now take his revenge. came to placate him with entreaties. This was his reply:

Fear not . . . as for you, ye meant evil against me, but God meant it for good (Gen.50.20; RV for close literalness).

This is paradox indeed! How can two independent agents both be responsible for such a thing and from different and opposite motives 11? Another example on a larger scale is from Isaiah. Compare in chap. X vv.5,6 with vv.7ff. God declares in the former that He is sending the Assyrian armies against Israel to punish His people for their godless inhumanity (see vv.1_4). They were as a result "*troddendown like mire in the streets*" as secular history records. However the Assyrian's own intention was quite different from God's. It was pitiless self_aggrandisement, (for which he will in turn be punished, vv.5,12). How these two propositions can both be true at once is not easy to grasp; but the situation even here pales into insignificance beside what (according to the Bible), is the turning point of universal history 12, the event we refer to as the Crucifixion of Jesus Christ, or more briefly, Calvary. In referring to this I shall be repeating an argument I used before. I do so without apology because it concerns a matter of fundamental and overarching importance _ but which is often overlooked or ignored; and I remind the reader that the matter at issue for the moment is not so much whether the Bible is right in what it says, as whether it has logical self_consistency in saying it.

Calvary

The event we call Calvary is to the professional historian, the entirely understandable outcome of certain historical, sociological, cultic, and individualistic factors. A motley assemblage of men and movements were somehow by the accidents of history fused together into an uneasy unity: the ambitious chief priests, the Sadducees, scribes and Pharisees, the Herodians, Zealots and Roman soldiery, Pontius Pilate, Herod, and the traitor Judas. An idealistic and non_violent young prophet named Jesus fell foul of their combined forces. The result was almost predictable. and certainly quite understandable in entirely naturalistic terms. I personally would not wish to dispute this. Yet the Bible tells us that from the point of view of the Sovereign Lord all was, in sacred mystery, the outworking of a single predestined divine plan (Acts 2.23 RSV):

this Jesus, delivered up according to the definite plan and foreknowledge of God, you crucified and killed by the hands of lawless men

said Peter as he preached 14. Further, it tells us that salvation for men and women hangs on their response to this fact of history. To think that the key to the meaning of Calvary lies in the hands of the professional historian _ or any other professional for that matter _ is to miss its real significance altogether _ an incalculable loss 15.

Now what is true of the events of Calvary as the Doing of God is true also (I would argue) of Scripture as the Oracles of God 16. The secular historian investigates the one, the critical scholar the other. Their studies issue in naturalistic reports. Within their own terms of reference these may be both wholly accurate and entirely valid _ but they miss the great essential. That isn't their fault as professionals; they are tuned necessarily to a specialist wavelength, or (to change the metaphor) focused on their professional level. What is inexcusable however (and we are thinking now of Scripture) is when they deny, on the ground of their findings, that God is speaking here and now in true and authoritative fashion and in the language. of perspicuity to humble hearts _ speaking about the great themes of Creation and Redemption, Eden and Gethsemane. Theirs would then be a denial whose substance could not for a moment be conceded. It takes the Bible as divine revelation effectively out of the hands of the common man, and distances God from men and women as a public communicator, as One whose authentic Word we can

now share and ponder together like the Jews of Berea, *who were more noble because they examined the Scriptures daily to see if what Paul said was true* (Acts 17.11). It is the practice of doing the same sort of thing with the Book of Nature that gives science its authority, and means that in the end, (provided it is true to itself by sticking to what it finds there) it eventually gets its answers right 17. For all scientific evidence is *accessible at will to man as man* 8, anyone can repeat an experiment, examine a fossil, or even *in principle*, land on Mars. The point I am now stressing is that (again on biblical premises) there is knowledge for man to seek far more valuable than scientific knowledge (John 8.32; 12.25), and an all-wise Creator has not left His creatures less well-provided for in doing so (again Acts 17.11).

Interpretation

That is one reason why I believe Genesis (as we now have it) should be approached open-mindedly as the written Word of God. Our next problem (as it is in science) is interpretation.. What are we to make of our data? How to understand it? Much has been written about this 18, and a number of significant instances are discussed later. Scripture naturally assumes precedence as its own interpreter, and with this in mind a point of rather fundamental importance may be raised at once. It is suggested by a parable which Jesus addressed to the crowds at Jerusalem when the chief priests challenged him about his authority to cleanse the temple. It is usually referred to as the Parable of the Wicked Husbandmen 19. We notice two things. It is in the language of metaphor, but its reference is historically concrete _ the story refers to particular people and happenings. Jesus meant his hearers to understand it as setting out the divine perspective on the nation's religious history, and they took it as such. Israel is the vineyard, its religious leaders are the tenants, the prophets are the servants sent for the fruit, and Jesus is the beloved Son. The parable (unlike those of the Prodigal Son or the Sower) is 'historically particular'. It illustrates a mode of speaking often found in Scripture, and there are reasons for taking the narratives of Eden, of the Two Trees and of the final expulsion like this. But that can be quite consistent with the story setting forth from God's standpoint, real history 20.

We return to our subject. Sermons can be of different sorts, as everyone knows. Can we be more specific, in particular about Genesis as a divine 'sermon'? Are the early chapters 'myth' for instance? The word 'myth' is unfortunately a bit ambiguous. To the layman it usually means a story without foundation, a mere figment of the imagination. To the scholar however, myth may be related to truth, but rarely to real events of history; it is more abstract. With this in mind, what can we say of the early chapters of Genesis? For reasons enlarged on later, the story of Eden and the Fall cannot be regarded as myth even in this sense 21, but rather as *similar to the accounts in the New Testament of the temptations of Jesus* (Matt.4; Mark 1; Luke 4). These were events which the Gospels clearly intend us to regard as historical; but they embraced not only the world of the senses but also the spirit world we cannot see, but which has some access to us. That is why not every detail of the Gospel record is open to the question "What would this have looked like on a video_recording?" The recorder would have totally missed many things! The problem for the secularist is that he has already made up his mind that there *is* no such unseen world; he is bound therefore similarly to misunderstand Genesis if he regards it as describing what a video would have captured. The believer finds little difficulty here; his experience in prayer and what follows as divine answer bring the two realities, the seen and the unseen, into effective correspondence.

This brings us to the Creation account. Consider the subject matter with which Genesis 1 deals. A video_recorder on the scene using lapsed_time technique could have captured, one imagines, a great deal of what went on _ the vast movement of the seas and the appearing of the dry land; the sprouting of the vegetation and the teeming of the waters;

the appearing of birds and of reptiles, then of land creatures, and finally of man. I believe that thinkers such as Professors Richard Dawkins and Peter Atkins, had they been privileged to view the video, would have smiled with satisfaction and congratulated one another _ "Here we have proof; we are right, gloriously right! everything evolved and God is nowhere to be seen or heard!" If I am right in this, they would have gravely misunderstood the language of the Bible; it nowhere implies, for example, that the Creator could have been seen or heard, or for that matter that new plant and animal species had suddenly appeared fully formed. The video recording, I maintain, would support the biblical account just as arguably as it would theirs; it would favour neither. If they disagree, to what sort of thing on the recording would they point? Do they think the tape would have recorded a voice saying "Let there be light", or a video signal showing the Deity (in some form or other) moulding clay into a human form and then breathing on it? Such ideas are too naive and out of keeping with the genius of the Bible to be entertained for a moment. True, God does appear later in the Bible in what are technically referred to as 'theophanies', but the situations are very different. His power is always veiled and muted as He condescends to men, by then with some history behind them²². So I conclude that the creation narrative does record the occurrence in pre_history of real events, but it also bears witness to their invisible divine authorship. The 'happenings' were historical; the 'God said' occasions some scholars might call 'mythical'. But this latter word is too tainted to be accepted without protest. A better word is 'metaphysical'. How we distinguish between the historical and the metaphysical (as between the literal and the metaphorical ²³) is a matter of usage and common sense. There are no *a priori* rules. But as we saw in the Introduction, science faces a similar situation.

Looking at Scripture as 'God preaching' ³⁷ yields positive insights. Every preacher faces a mixed audience; and every good preacher aims to be comprehensible, in His really for_ever matters, not only to all who are there_and_then listening, but to all who will hear afterwards. God is the preacher *par excellence*. Thus there is always a message in His preaching addressed to the immediate audience and in words suited to their understanding; but since He wastes no time in needless trivialities, a message vital for later hearers too. The prophecy in Isaiah 7 about the 'young woman' who was to conceive was addressed in the first place to King Ahaz, and was intelligible to him where he stood. But the New Testament makes it plain that when God preached that sermon He had more distant horizons in view as well and servants (like Joseph ²⁴) not yet born. It had a larger significance than Ahaz could know; the immediate reference of the prophecy (demonstrating God's power over present events) would presage a far greater one to come. Such prefatory and instructive occasions are, in fact, something quite frequent in the Bible ²⁵. It is reasonable therefore to maintain that the casting of the creation narrative into the pattern of the 'six days' was a device designed to convey a present message to those listening, and also in terms still equally user_friendly, a vital one to generations coming later. To Israel at the time the purpose was to confirm there and then a *weekly pattern of life* _ six days of disciplined work followed by one of rest and reflection on their covenant relationship with their Maker. For us to read it now as an introduction to a 'scientific' cosmology is a great mistake; as such, it could have had little value then for them. In language plain enough to the ordinary man and woman then it indicated their Maker's beneficent routine for daily living. Later, when the seven days' week had taken root in Israel's life the significance of 'seven' becomes widened ²⁶ and when the forty years were fully up and the next generation were about to enter the Promised Land, the reference to the 'six days' of creation was dropped altogether for something more important _ their deliverance from slavery (Deut. 5.12ff; see also Appendix II).

What is truly surprising is that this whole ancient record, rightly understood *in its own*

terms, can be set alongside the best of modern scientific thought and be seen to hold its own. Can anything remotely comparable be said of any of the creation myths of the ancient world _ the Babylonian or Egyptian for instance?

Ancient creation myths

The mention of ancient creation myths raises some further interesting questions. It has been customary in some quarters to regard these myths as primary and the Genesis narrative as secondary, that is, as based on them but improved immeasurably by the genius of Israel's religious thinkers. Certainly the two have interesting elements in common. But it is no more necessary to regard the Genesis account as derived from (say) the Babylonian than it is to regard the Ten Commandments as derived from the earlier code of Hammurapi. C S Lewis has a remark 27 that great moralists are sent not to teach people the moral law but to remind them of it, "to restate the primeval moral platitudes"; for men have already an inborn sense of what is right and wrong, defective though this may be 28. In a rather similar way it is entirely reasonable (on biblical premises still) to believe that very early, man had already an inherited understanding of the origin of things, though a sadly distorted one, an understanding to which these ancient myths bear witness 29. The Mosaic revelation recalled Israel (and the world) to a true understanding. This would account both for the common elements in all these early narratives (including Genesis) and for the enduring excellence and theological pre_eminence of the latter. Of these common elements, the 'deep' in Genesis 1.2 corresponds etymologically to Tiamat in the Babylonian myth; but whereas Tiamat was "the goddess of the primeval World_Ocean, who had existed from time immemorial and was the mighty foe of the Creative God" 30, in Genesis God, as Kidner notes 18, has no rival; the deep is merely part of the created world. "waiting to receive whatever impress His will places upon it". Again, the ancient myths included stories of battles between the gods and great sea monsters such as the Dragon of the Sea, Leviathan the Fleeing Serpent and Leviathan the Twisting Serpent 31. In Genesis 1 the 'great sea monsters' are singled out deliberately (v.21) and mentioned simply as members of God's creation, like others the recipients of His blessing. Similarly, in a manner calculated (again probably deliberately) to deny any grounds for religious veneration 32, the sun, moon and stars are introduced as the Creator's handiwork (vv.14_18). the sun and moon being dignified not even by their recognized names but only by their functions; and the sun, made on the fourth day, being pointedly distinguished from light, which was called forth on the first. These comments suggest very plausible reasons why the 'elements' mentioned – the deep, the sea monsters and the heavenly bodies _ are introduced into the narrative in the casual way that these prominent things are. Far from indicating a derivation of Israel's doctrine from the myths of surrounding nations as some think, there is a necessary stress on *creaturehood*33.

For God is here "preaching to men", and His glory He will never give to bogus gods such as the other nations worshipped (Isa.42.8).

We shall meet the subject of interpretation again inevitably in subsequent chapters, and also the question of myth; but a few further remarks of a general nature are appropriate before this chapter closes.

Biblical scholars today often speak of the first chapter of Genesis as 'priestly doctrine', gradually refined over the centuries and brought into its present form by one or more editors or 'redactors'. The second and third chapters are more commonly regarded as myth, though serious and profound myth. These views, even if they were correct, would surely be profoundly inadequate. As I have argued earlier, the arrest, trial and crucifixion of Jesus Christ can be understood in his own terms and to his complete satisfaction, by a purely secular historian: and his description of events and explanation of causes may be

proof against all arguments. But to faith such an understanding (taken alone) is hopelessly deficient. To faith (not in the sense of capacity to believe or propensity to do so, but in the sense of spiritual perception) this event is the turning point of universal history, the prodigious act in which God moved to reconcile a world_in_revolt to Himself. This realisation is denied the secularist not by logic and reason, but by the fact that he has chosen to disbelieve in a Creator and so in a rebellion against Him. Through the Bible the eye of faith has been opened to see things another way; Calvary was God's act before it was man's 34. What I am maintaining is that something similar is true of the Genesis narratives. They are *God speaking*, however many redactors there may have been. This position can be maintained as firmly as can the whole New Testament message 35. Critical scholarship has moved a long way in its appreciation of this wonderful literature since the Babylonian creation myths were first discovered in 1853 and Charles Darwin published *The Origin of Species* in 1859. It may still have much further to go; but the Christian reader will echo the affirmation of a great biblical scholar, Gerhard von Rad 36. He was referring to the comment of a Jewish scholar, Franz Rosenzweig, that the sign 'R' (for the postulated 'redactor' of the Genesis documents) should be interpreted as Rabbenu ('our master'), a tribute to the greatness of his work. "But for us", says von Rad "in respect to hermeneutics, even the redactor is not 'our master'. We receive the Old Testament from the hands of Jesus Christ, and therefore all exegesis of the Old Testament depends on whom one thinks Jesus Christ to be". That is truly said, and it is worth pondering. It may well lead the reader to the conclusion that Genesis (and all that follows it in the Bible) must be *God speaking*: God explaining Himself to men, and men to themselves. For it looks uncommonly like "God preaching" 37 to His creatures, and taking as His text now history, now nature, now experience _ telling them where they came from, why they are here and how they may find that free, happy existence they all want so unreservedly. Since science and philosophy have come up with no lasting and satisfying answers, we might as well look again at these incomparable writings, authenticated as they are to us by no less than JESUS CHRIST Himself 38.

NOTES

1 Einstein, as this remark of his suggests, was not himself a believer in the God of the Bible.

2 See Steven Weinberg, *DREAMS OF A FINAL THEORY* 1993 Hutchinson Radius, London.

3 Gen. 1.28f, where God spoke uniquely to them and said "replenish, subdue, have dominion".

4 See for instance, Mark 10.2_9; John 9.1_3; 13.6,7; Rom.8.18_39; 11.33_36; Eph.1.3_10; Heb.2.10; 2 Pet.3.11_13

5 John 9.29

6 Matt.4.4,7,10; 5.17ff; 19.3ff; 22.29; Mk.7.10ff; 12.19,24ff; Luke 16.29ff; 20.28ff; 24.25ff,44ff; John2.22; 5.39_46; 7.38; 19.28.36f. Prof James Barr, although a strong opponent of the view taken here, writes, "There is no doubt that Jesus, as depicted in the Gospels, accepted the ancient Jewish Scriptures as the Word of God and authoritative" : *ESCAPING FROM FUNDAMENTALISM* (SCM Press 1984). His successor at Oxford. Prof John Barton, another opponent, agrees: *PEOPLE OF THE BOOK?* (SPCK 1988).

- 7 See Jesus' parable, Matt.13.24ff; also Luke 21.8; Acts 20.29f,33
- 8 Physics, like all true sciences, is based finally on evidence which is "in principle accessible at will to man as man"; this clearly rules out 'final purpose'. See Michael Foster, MYSTERY AND PHILOSOPHY (SCM Press, London 1957)
- 9 Gen.12.1_3; Isa.42.1_9; Matt.25.46; John 10.27f; Rom.8.18_28; Rev.22.3: the possible references are legion.
- 10 See also Paul's use of Ps.68.18 in Eph.4.8f, or of Isa.25.8 in 1Cor.15.54f; for Dawkins, see THE SELFISH GENE. 1989, p.270
- 11 For the writer's attempt to throw light on this paradox see *Churchman* 112/4 1998 pp.357_362. The essence is that while God ordains the event, men act it out from their own motives (Isa.10.6.7)
- 12 See Gen.3.15; Matt.26.53_56; John 12.23_33; 17.1_5; Luke 24.36_53; Acts 17.22_31; Gal.4.4; 2 Cor.5.14_21; Phi1.2.5_i1; 1John 4.14; Rev.5.5_14
- 13 Mark 15.10; Matt.21.38; John 11.48; 19.12
- 14 See further Ps.2; Mk. 10.45; Luke 24.20,25_27,44_47; Acts 2.23; 4.24_28; Rom.8.28_32; 11.33_36; Gal.4.4; Eph.1.9_11; 1Pet.1.18_20; Rev.13.8.
- 15 Luke 10.21_24; 1Cor.1.18_29; 2.6_13; cf. Isa.66.2
- 16 Rom.3.2f. It is a consequence of the principle I am defending that while it may be an important truth that (e.g.) the prologue to John's Gospel is 'the result of his mature theological reflection', the all-important truth is that it is God-given revelation, God speaking by the Holy Spirit (2Peter 1.20,21). That is what constitutes scripture the 'Oracles of God'. Academic brilliance and gifted reflection are not the same as this; cf. Amos 7.14ff.
- 17 Of course, this depends on its building only on well-founded evidence, and not incorporating into the foundations what is simply – speculation. It is in this that secular neo-Darwinism is here being challenged.
- 18 See D. Kidner, GENESIS: An Introduction and Commentary (Tyndale Press, 1967); and Henri Blocher, IN THE BEGINNING (Inter_Varsity Press. 1984); both strongly recommended.
- 19 Luke 20.9_19
- 20 Kidner has drawn attention to this (*op. cit.*, p.66). Other examples are 2 Sam.12.1_6; Isa.5.1_6; Ezek.16.17ff; Dan.2.31_45
- 21 Except in C S Lewis's sense – see Preface to GOD IN THE DOCK (Collins. 1979).
- 22 e.g. Gen.18.1f,33; Exod.3.1_6
- 23 As in John 18.11 where they are in close juxtaposition.
- 24 Matt.1.22f

- 25 See for instance Gen.22 with Luke 22.42ff; Dan.12.8,9; Luke 10.23,24; 24.25; 20.38 with 2Tim.1.10; 1Cor.10.11; Eph.3.5,6 with Isa.49.6; 1Pet.1.10,11.
- 26 See Exod.31.12_17; Lev.25.1_22. I am far from suggesting that there were no thinkers in Israel who could have appreciated there and then the present suggestions about the 'days'_ cf. John 8.56
- 27 C.S. Lewis, I think in MERE CHRISTIANITY (Geoffrey Bles, 1943)
- 28 Rom.2.14,15
- 29 Rom.1.20; cf.Isa.40.18_21
- 30 U. Cassuto, GENESIS (Jerusalem,1961). See also Kidner, *op.cit.*
- 31 That these are mentioned in Isaiah 27.1 and elsewhere no more accords supernatural reality to them than does their mention in Exod.12.12 accord it to the gods of Egypt, or "God is the master of Chance" accords it to the latter.
- 32 cf. Deut.4.19; Jer.8.1,2; and G. von Rad, *loc.cit.* (under note 36)
- 33 See Kidner, *op. cit.*
- 34 John 18.11; Acts 2.23; 2Cor. 5.19
- 35 It would be quite inadequate to understand Paul's Epistle to the Romans as merely apostolic doctrine.
- 36 von Rad, G. COMMENTARY ON GENESIS, English trans. (SCM, London,1961) von Rad died in 1971. He was in no sense a 'fundamentalist'.
- 37 I believe I owe this description to Dr. J.I. Packer. God preaches sometimes directly as in Exod.20.1ff with Deut.4.12; and in Isa.1.55; more often through His prophets (Heb.1.1,2). But in every case, as Augustine remarks, "What Scripture says, God says".
- 38 See e.g. Matt. 4.1-11; 22.29f, 41f; Mark 12.10; Luke 24.25f, 44f.

The Meaning of 'Creation' in the Bible

[>>back home](#)

Creation (in the biblical sense) is not a theory alternative to, and in competition with, theories offered by science. It has nothing to do with materials, mechanism and process. It is an ultimate concept and thrusts itself upon us when we look, not backwards in time, but away from our space_time altogether. An analogy makes this plain, and also the relation between creation and providence.

God is sovereign over his creation. He brought it into being out of nothing, and He holds it in being. Thus He is both transcendent and immanent; another analogy illustrates this. Nature is therefore not divine: it is something over which man is to exercise responsible stewardship.

The word 'create' in our English Old Testaments is nearly always a translation of the Hebrew word *bara*. This latter is not, however, the only word used in connection with the subject we are discussing. There are in fact two other common ones: *asa*, usually rendered 'make' or 'do' but with a wide range of other meanings 1; and *yasar* usually translated 'form' or 'fashion'. But among these three words *bara* seems to be a term of special significance. It is used only of God (as is its Greek equivalent *ktizo* in the New Testament). Wherever it is used it seems to convey strikingly a sense of newness, sometimes indeed expressed quite explicitly². It is probably true to say that *bara* (and *ktizo*) have a significance in the Bible very similar to that of 'create' in modern English, so it is worth looking .into our own usage of this latter word a little more closely.

In current English we allow 'create' and its derivatives to be used of human subjects as well as God; we talk for instance of the 'creative arts'. But we still use the word in a special and rather exciting sense³. We remark that Beethoven 'created' the great *Missa Solemnis*; alternatively, of course, we may choose to say that he 'composed' or 'wrote' it. The two statements are not equivalent however; their impact is quite different. The latter conjures up the picture of a man at an untidy desk, pen in hand; the former, of a man with a rapt look in his eyes, deeply stirred by profound ideas. Again, is it quite appropriate to comment that another great musician, Haydn, composed a famous piece in the summerhouse at Eisenstadt while in the employ of the Esterhazy family in the autumn of 1765; but it would sound a little odd if 'created' were substituted for 'composed' in this remark. 'Creation' is too powerful an idea to be tied down to a specific time, place and circumstance like this. In a sense Haydn's masterpiece was the work not of a few particular weeks but of a life; it came to birth not in a small summerhouse but in Haydn's world. It is this aspect of things that the word 'create' (as against 'compose') is used to express. 'Composition' is linked with time, place, circumstance and process; 'creation' tends to soar above them all.

The biblical usage follows this pattern. Thus, when the Bible uses 'create' (or 'make' in a parallel sense) it is not concerned with material and mechanism or even with particularities of time and place. The very furthest it goes in amplifying the mode of God's creative activity is to affirm, 'God said, "Let there be." ' Creation was by Divine fiat. *By the word of the Lord the heavens were made, it says, their starry host by the*

breath of His mouth . For He spoke, and [the earth] came to be; he commanded, and it stood firm 5. The famous prologue to John's gospel 6 emphasizes the same with its striking metaphor of the *Word* for Jesus Christ, the divine Agent of creation. Again, it is characteristic that when the biblical writers wish to say something of the materials out of which or the methods or processes by which things were given their present visible structure they avoid the word 'create' 7. They use instead the more general terms 'make', 'form' or others similar. Thus they tell us that man was 'formed' (not 'created') of dust from the ground, and woman was 'built up' (not 'created') out of part of Adam's side 8. Again, Jeremiah was 'formed' in the womb; Job was 'made' and 'fashioned', and Jacob 'made' and 'formed' there 9. The writer of Psalm 139 in an oft-quoted passage 10 uses four words in two verses to describe his development onwards from conception _ but not one of these is 'created'. Accordingly it would seem fair to say that in the Bible the *creative aspect*

of God's activity (and there are other aspects) is never linked to a particular process or material; rarely even to a specified moment or locality 11. The act is seen rather as an unanalyzable movement out of the mind of the Creator into the arena of created 'space_time' (as we have now come to call it)12. In this movement the only intermediary is God's Word. Creation is thus an ultimate concept; it indicates the furthest back it is possible to go in discussing the origin of things. It is in this sense that in John's vision of Jesus Christ, the Lord speaks of Himself as the *beginning of the creation of God*, the Word which gave effect to God the Father's creative thought and brought the world into being 13. It is in the realisation of this that 'creation' is seen, emphatically, not to be an alternative to scientific theories of origin. It belongs to the ultimate realm, beyond science; it is undiscoverable by any experimental technique whatsoever. The Bible insists on this 14.

However, it is important to recognize that in speaking of the notion of 'creation' as the furthest back we can go we must not think exclusively, or even primarily, in terms of time (i.e. historical time). Why must we not do this? Because Scripture tells us that God's creative word is *still being spoken*, and will be to the end of the age 15. It was being spoken, for example, in the great public drama of national regathering after the captivity of Babylon.; and it was spoken in the private experiences of King David as he sorrowed for his sin 16. Particularly where there is a notable new beginning, as in these cases, the Bible proclaims God as Creator. Even more significant for us are the references to recurring events in the living world. To each generation the call comes with immediate relevance: *Remember also your Creator in the days of your youth*17. In every spring as the new leaves burst forth, or the new baby rabbits appear the Bible recognizes the creative activity of God. "A new generation takes the place of the old. Creation continues, for God is perpetually sending forth His Spirit and renewing the face of the earth with fresh life" 18.

Creation in the Bible is therefore an idea which comes into its own when we think not so much backwards in time as upward (or outward) to God. In reflecting on the idea of ultimate origin the tendency to look backward in time has become natural and almost universal only because we and our world have so clearly the character of growing old. If we lacked this character (and we were still interested in the possibility of creation) we would be readier to grasp what has just been stated _ that the essential direction to look is not backward in time but away to God. This conclusion would seem to follow from the biblical handling of this topic: to repeat, the idea of creation involves essentially a look in the direction of God, not of prehistory.

To clarify this further, let me use an analogy to illustrate the relationship of creation to

another biblical concept, providence. Suppose we regard our world's on-going history as 'His Story', a story which the divine Author, unseen, is Himself writing. (This is not, in passing, an unbiblical analogy: see Ps.139.16; Heb.10.7; Rev.5). His book is before us, incomplete; the ink is still wet where it lies open. Seeking to understand what is in the process of being written we try reading what has gone before, turning back the pages one by one. The narrative grips us. Indeed we cannot pause until, alas! we find the writing becoming too faded, intermittent or archaic in style for us to decipher. At this point we stop; or rather, our interest, with less to hold it, becomes aroused in a new direction. "Whose book is this?" we ask. "Who wrote this story?" The question of authorship has met and challenged us as we turned back the pages to the beginning; but in fact, this question could have confronted us at any point, even where the ink was still wet _ only then we were too preoccupied with the tale itself. From any page we could have reorientated our thoughts, looked up, and exclaimed, "Hey, who wrote this?" Better still, at the very start we could have called out, "Is anybody there, *writing* this?" For we notice of course that the story hasn't finished.

Though this analogy has imperfections (for example, we are not merely *readers* of God's story but characters in it), its interpretation should be plain. God, of course, is the Author of the tale, the Creator of the world it portrays and of the characters and encounters which enliven it. All is of his conceiving 19. As we contemplate the story we note that fresh characters constantly appear, and new situations constantly develop. Where do they come from? At this point in our discussion the most obvious answer is, from the Author's fertile mind. This answer denotes creation: it explains in fact what is meant by that term. But the Author is not projecting into his created history a jumble of things and notions isolated, disparate, incommensurable, lacking relation and compatibility. He has thought (and written) into being a coherent story, in which everything is linked intelligibly and meaningfully with everything else. That fact introduces the possibility of a second answer not a consequence of mere logical necessity of the first: the characters and situations come from their antecedents *in the story*, and can be understood in terms of them. To the reader the *dramatis personae* and their circumstances do not appear suddenly from nowhere, as stones dropped into a pool might seem to do to a fish. They are engendered within the story itself in a way usually quite comprehensible to him 20. Accordingly, as we trace with admiration the way the Author has skilfully and lovingly made one situation develop from another we find ourselves answering the question "Where did this come from?" in terms not of creation as before, but in terms of what the religious believer, in real life, calls Providence _ God's previous and continuing activity in things which influence his circumstances.

Seen in the light of this analogy the biblical concepts of creation and providence appear as two contrasting, but entirely consistent theological accounts of how a given situation arose. The first traces it from the conceiving mind of God into the arena of space_time; in this it imparts *meaning*. The second concerns its history *within* space_time; here it introduces *mechanism*. These accounts appear in relationship. They are not alternative to each other, as if we could opt for one or the other according to whim and fancy; they are complementary in the sense that we need both if we are not to miss important truths 21. *Remember now your Creator, and Honour your father and mother* is how the Bible reminds us of our present duty in both connections. One commandment recalls our creation; the other our procreation, i.e. the way in which God, in His story, has providentially woven our lives into the fabric of what has gone before (i.e. how He has 'formed' or 'fashioned' us, Heb. *yasar*).

The Bible's doctrine of Creation has often been summarized in the phrase *creatio ex nihilo*, creation out of nothing. The appositeness of this phrase should be apparent from

the foregoing discussion, but some of its further implications need to be made explicit. Firstly, it means that nothing, visible or invisible, shares God's eternity. He alone has *immortality*²². Without implying that eternity is simply time extended (in both directions) endlessly, this means that the Creator and His Creation stand on a fundamentally different footing. He is the Holy One ²³ (as we saw in an earlier chapter), never to be confused with created things (even the most splendid, like the sun), or with the world process itself (which He controls) ²⁴. The Bible never lets us lose sight of this distinction. The moment we do so, it says, we are in danger of falling under the power of a lie, great and damaging ²⁵. Secondly, God is under no external constraints in His creative work. He hasn't to 'make do', like us, with whatever materials are available. He is absolutely free, bound only to be true to Himself ²⁶. Of course and most importantly, He was under no compulsion to create the universe at all, or to create it just as it is. In other words, He willed it and designed it. This matter will be discussed more fully in Chap.VIII.

Finally, as the Venite (Ps. 95) so magnificently describes, the world belongs to God, and is under His sovereign and omnipotent rule. Having created it, He is never, like the sorcerer's apprentice, faced with situations out of His control ²⁷. He commands, and creation obeys ²⁸. The fact that man can (and does) resist God's will is, paradoxically, not a denial of His omnipotence but an outcome of it. It is He who has given this power to men. He holds them responsible for the use they make of it, but that that is no denial of His omnipotence will be evident when God brings all eventually to judgement ²⁹.

Deism

We must now consider a little more closely a facet of the Bible's teaching hitherto noticed only in passing. The Deists ³⁰ had made the mistake, biblically speaking, of regarding the world as a machine created to function on its own according to built_in laws. God was thought of as a sort of machine_minder who needed only rarely to 'intervene' to rescue the machine from a malfunction (a seized_up bearing shall we say), or to supply it with material. He exercised His control from outside. This, however, does scant justice to the richness of the Bible's teaching. This teaching is that God is not only 'over all' (transcendent) but 'in all' (immanent). The relationship to the creation is perhaps something like that of a sponge in the sea. Each is 'in' the other (but not in an equivalent sense). Accordingly the Bible sometimes speaks of the creation being in God (the sponge in the sea); and sometimes of God being in the creation (the sea in the sponge) ³¹. There are two or three notable passages in the New Testament which stress this continuing dependence of the creation on God. Paul, speaking of Christ as the divine Agent of creation, says, *in Him were all things created, . things visible and . invisible, . and He is before all things, and in Him all things hold together*, or cohere ³². The great 19th_century scholar J.B. Lightfoot commenting on this says. "He is the principle of cohesion in the Universe. He impresses upon creation that unity and solidarity which makes it a cosmos instead of a chaos. Thus (to take one instance) the action of gravitation . . . is an expression of His mind" ³³. No doubt Lightfoot would have agreed that Relativity and Quantum Mechanics are too. The writer to the Hebrews similarly makes of Christ the vast assertion, *He reflects the glory of God . . . upholding the universe by His word of power* ³⁴. In a backward look at the course of world history the elders before the throne of God in the book of Revelation praise Him because, *Thou didst create all things; by Thy will they were created and have their being* ³⁵. In the New Testament, whenever God's involvement with the dynamics of natural processes is mentioned (in general terms rather than with reference to particular historical instances), the verb is always in the present tense, which corresponds rather to our present continuous than to our present simple (e.g. 'I am doing' rather than 'I do'). Thus God *makes* His sun to rise, *sends* rain, *feeds* the birds and *clothes* the lilies ³⁶, Jesus tells us. We miss his whole point if we regard all these statements merely as relaying beautiful thoughts. They are intended to

disclose hard facts; there is no point in making them if they don't. In the Old Testament it is the same; God's involvement with His creation is not something finished and done with when we reach Genesis 2. He *makes* springs gush forth; animal life of all kinds *looks* to Him for food; stormy winds *fulfil* His command; He *gives* the fixed order of day and night, and so on 37. He is the God in whose hand our breath is 38. All these usages convey the same impression. God is very much involved in the continuing existence and functioning of His world; and it is again His *creative* word Peter, tells us, by which he gives effect to His will 39.

The relationship we have been speaking about is, of course, what theologians refer to as God's 'immanence', His presence everywhere and in all things. This must be set alongside His transcendence, for the Bible, as we have seen, insists on both. This certainly poses a problem for thought; how are we to conceive of such a complex double relationship? It is natural in such circumstances to look for an analogy or model which embraces as much as possible of its more important features. A book and its author is a useful one to illuminate the relationship of creation to time. What we want is one to illuminate particularly that of transcendence to immanence, and for this purpose I should like to adapt one suggested by the late Professor D.M. MacKay 40. It runs somewhat as follows. Instead of thinking of creation as *manufacture* (the manipulation of matter into objects, like the Deist's watch) he suggests that we think of the process by which the busy two-dimensional world of a television screen, full of colour, life and interest, is held in being. The world on the screen has an existence of its own: yet it is clearly a *dependent* world. It is established by energy from outside; one throw of the switch and it dissolves into nothingness 41. Moreover, its dependence is a moment-by-moment affair, and only the continuing goodwill of the broadcasting authorities keeps the show going. Yet this lively world need not be reflecting the goodwill of its sponsors. It may be filled with scenes of violence and hate totally abhorrent to them. Thus the model illustrates (however imperfectly) not only transcendence and immanence (as characteristics of the sponsoring authority, that is) but also that element of freedom to rebel which we know so well in our real world. However, as Professor MacKay himself warned, "Every illustration brings with it a crop of possible misunderstandings which counterbalance its usefulness" 42; so we must not push it too far.

We may attempt to summarize the biblical teaching of God's immanence, so far as it is relevant to our subject, in this way. Nature is so constituted that it is legitimate to think of physical processes as taking place in accordance with fixed laws, laid down by the Creator and giving to Nature a certain in-built autonomy. Examples of this emphasis are Job 28.25,26 for atmospheric phenomena; Jer.5.22 for terrestrial, Jer.31.35,36 for celestial; Jer.8.7 for zoological; and indeed the original ordinance of Gen.1.11,12 which established for the biological world the fundamental principle that like reproduces like 43. Yet we would be mistaken if we took this to imply that God's relation to Nature is like that of an aircraft pilot who has handed over his machine to automatic controls. This would be seriously to undervalue the Bible's teaching that it is God's ceaseless faithfulness and 'steadfast love' that alone maintain what we regard as the law-abidingness of Nature 44. Who would think it appropriate to speak of the faithfulness of a pilot whose plane was flying automatically? The most he could mean would be that the pilot was holding himself ready to assume control in an emergency _ a quite inadequate representation of the situation of which the Bible speaks. Interestingly, the Greek word *automatos* (from which we get 'automatic') occurs twice in the New Testament (Mark 4.28, Acts 12.10,11); on the first occasion it suggests the element of autonomy in Nature 45, on the second the divine control over Nature 44. Evidently there is no conflict between the two ways of looking at things: but the whole tenor of Scripture tells us that the second is the more fundamental 46. The ultimate truth is that whatever

happens in Nature (whether through 'miraculous' angelic mediation as in Acts 12.10,11 or in the ordinary course of things as in Mark 4.28), God ultimately is the Giver of its actuality (if such an ugly phrase can be pardoned). When Jesus tells us that our heavenly Father "feeds the birds and clothes the lilies", it is clearly unacceptable to interpret his meaning as if he had added, "Circumstances permitting". Jesus knew as well as we do that birds die in hard winters and flowers suffer malformations. His words are empty of power to reassure if they are qualified by any suggestion that in the end, God may be defeated by the vagaries of nature. Nor can he possibly mean that, in such an eventuality, God like a good father will make it up to us in some other way. The only possible consistent understanding of his words is to take him as meaning, "Don't be anxious; your Father controls *everything*, in wisdom, love and power". And when he later added (in anything but the spirit of hyperbole), *even the hairs of your head are all numbered*, he indicated that this matter of the divine solicitude extends to the ultimately small. There would seem to be no excuse, on this testimony, for denying it even to the myriad electrons and photons that throng the universe of microphysics 47.

For man, made in the image of God and charged with dominion under Him, two serious corollaries follow from the Bible's teaching. The first is that what we have come to call 'Nature' is not to be regarded as divine, and worshipped. Men have often in the past worshipped the sun, moon and heavenly bodies, or certain animals and trees. Some still do. The Bible makes clear that this is a futile practice and a God_forbidden one 48. The truth is (the Bible implies), that as nature was created out of nothing, so in the form we know it nature will one day vanish into nothing, like a television picture when the power is cut off; or better, when the set is switched to a new channel 49.

The second corollary is that man cannot escape his responsibility as the steward of the physical creation. It has become fashionable in some quarters to call the idea of man's lordship "cosmic arrogance", as that able and influential writer Stephen J. Gould does 50. This is foolish. The biblical teaching must be understood as a whole; and when it is, the *denial* of man's lordship over nature becomes not cosmic humility (as Gould would imply) but cosmic evasion, dereliction of duty. For further, the Bible clearly teaches (what its critics overlook) that man's lordship is to be exercised on the pattern of his Maker's, for he is made in God's image 51, and it leaves us in no doubt about what this pattern is. *The Lord is good to all, and His compassion is over all that He has made; Thou openest Thy hand, Thou satisfiest the desire of every living thing; He will gather the lambs in His arms and gently lead those that are with young* 52. Is then the charge of "cosmic arrogance" against the Bible's doctrine of man's dominion over nature, justified? Certainly not. The lordship of man over the creation is to be expressed in compassionate stewardship, never in greedy exploitation 53. It is true, like so many of Scripture's great principles, the mandate has been sadly misunderstood and perverted by those to whom it was addressed; but this cannot excuse us from recalling and obeying its implied obligations.

The biblical doctrine of Creation is one of the distinctive glories of the Christian faith, and indeed of the faith of Israel from which it sprang. It is what the Scriptures (1 Tim.4.6) call "good doctrine", nourishing to the spirit and full of health and wholesomeness 54. Men and women who receive it have at once an understanding of their humanity. They know what they are, where they are and why they are here. Gone are the spectres of meaninglessness, pointlessness and absurdity 55. They hear the voice of conscience and duty. It may not be sweet and soothing, but it is no longer something trivial, arbitrary, irrelevant or unintelligible, a mere tormenting accident of existence. It sounds a challenge and points a direction. It gives a reason for behaviour and the promise of peace of heart. Or they feel the pull of romantic idealism, the unbearable longing for something 'beyond'

56; and it is no longer a mere will o' the wisp, a cruel deceit, an unaccountable self_deception of the human mind. If the Bible is true and God is Creator, however far off the object of desire is, it is at least there, as a Reality to be sought. Otherwise the future is undefined, undefinable, and arguably merely the stillness of final oblivion. Bertrand Russell, in his famous essay *A Free Man's Worship* 57, wrote that "only on the firm foundation of unyielding despair can the soul's habitation henceforth be safely built." That was in 1903, reiterated in 1917. This outlook, reinforced by the increasing threat of history's violent human antagonisms now becoming global, still seems to hold in thrall many minds today, with Darwinian fundamentalists trying to make the best they can of it. Against it the biblical doctrine of God the Creator stands as a sure defence _ reinforced a thousandfold by its promise that one day *all things are to be made new* (Rom.8.20_25; Rev.21,22) when Jesus Christ comes to reign. It is hardly too much to say that the choice facing our post_modern culture lies exactly here: Biblical promise or neo_Darwinist despair.

Postscript

This chapter has discussed not the enfeebled creator_idea of deism which evidently is all that Prof Dawkins and others who think with him have in mind, but the biblical doctrine which is *fundamentally different*. Darwinist arguments may damage their deism, but they are powerless against the Bible's theism; it towers above them. If Darwinists wish to engage this they will have to abandon their science_based arguments, and turn to intuitive ethical ones instead, as indeed Prof Dawkins seems to realize 58. Their God is too small

NOTES

- It is sometimes a simple synonym for 'create' (e.g. in Gen.5.1). As a general rule it is best to refer to the RV for literal accuracy.
- See e.g. Numb.16.30 RV, RSV, NIV; Pss.51.10; 104.30: Isa. 48.6f; 65.17; Jer.31.22; Eph.2.15; 4.24; Co1.3.10; cf. 2 Cor.5.17.
- The dress designer and the hair stylist know how to cash in on this!
- Von Rad: "It is correct to say that the verb bara, 'create', contains the idea both of complete effortlessness and creatio ex nihilo, since it is never connected with any statement of the material" (GENESIS, op. cit. p.49).
- Ps.33.6.9 (NIV)
- John 1.1_3
- Something that is, about what (unfortunately) is often called 'secondary creation': this term rather lowers the dignity of the key idea.
- Gen.2.7,22 (REB, RVM)
- Jer.1.5; Job 31.15; Isaiah 44.2,24
- Ps.139.13,15(RSV):'form', 'knit together', 'made', 'intricately wrought'
- The Bible occasionally has passages like Ezek.21.30 or 28.13, but this is quite untypical and hardly affects our overall conclusion.
- This statement neglects for simplicity the world of created spirits.
- Rev.3.14 (RV, REB); cf. John 1.1,3 (RV, REB); Co1.1.15,16 (RV, REB)
- Heb.11.3(RV); Deut.29.29; Eccles.3.11
- See the note on 2 Pet.3.5_7 in Appendix 3.
- Isaiah 48.6,7,13.20; Ps.51.10. "Just as chapter 1 understands nature as created by God's word, so the Old Testament knows history also as created by God's word. See Isaiah 9.7; 55.10ff . ." von Rad, GENESIS, op.cit. (p.52).
- Eccles.12.1. See also Isaiah 43.15: Mal.2.10; 1 Pet.4.19
- A F Kirkpatrick, THE PSALMS, Cambridge Bible for Schools and Colleges (Cambridge, 1906). The reference is to Ps.104.29,30
- This analogy throws light on the problem of self_will, for as Dorothy Sayers noted in THE MIND OF THE MAKER, fictional characters, once created, do have a sort of

- free_will of their own. They can't just be made to do anything the author wishes, or they lose their credibility. See also the later television analogy.
- Of course, stories by human authors do have characters dropping in suddenly _ but that is because our stories are only narrow slices of the whole. On the other hand, as we shall see below. God is under no necessity to link every physical event in His story to earlier events in a law_described way; He can introduce what we call 'miracle'.
 - Quantum Physics finds a somewhat similar relationship in its wave_particle complementary.
 - 1Tim.6.16
 - Isa.6.3; 57.15
 - Ps.19.1_5; Isa.40.26; 46.3_11; Ps.119.89_91; Eph.1.9_11; Rev.10.6,7
 - Isa.40.25,28; 44.20; Rom.1.25
 - Pss.115.3; 135.6; Isa.40.13,14,26,28; Rev.4.11; 2Tim.2.13; 1Cor.8.6 (NIV, REB)
 - So we cannot 'explain away' the existence of predators, poisonous snakes, or noxious insects as if they were not His creatures, however much we would like to (see Ps.104.21; Numb.21.6; Exod.23.28; John1.3)
 - Pss.89.9ff; 93; 103.19_22; Dan.4.35; Luke 8.25
 - Matt.25.31_46; Rom.14.10_12; Rev.20.1,12
 - Deism was a system of natural (as opposed to revealed) religion which began in England in the late 17th century. It became highly influential in France and Germany; some of its great names are Toland, Tindal, Rousseau and Lessing.
 - For the first see Ps.90.1; 103.19; Acts 17.28; for the second Job 33.4; Jer.23.24; Eph.4.6.
 - Col.1.16,17.
 - J.B. Lightfoot ST PAUL'S EPISTLE TO THE COLOSSIANS (London 1879).
 - Heb.1.3 (RSV)
 - Rev.4.11 (REB, NIV). The two verbs using 'create' (one active and one passive) are aorists, signifying a past action complete in itself; 'have their being' is the imperfect, literally 'were being'.
 - Matt.5.45; 6.26,30
 - Pss.104.10,27; 135.7; 145.15ff; 148.8; Jer.31.35; Amos 4.7_10,13
 - Dan.5.23; Job 34.14,15
 - See Appendix III; and note the two tenses in Jer.10.12,13.
 - D.M. MacKay, THE CLOCKWORK IMAGE (Inter Varsity Press, 1974).
 - Compare Isaiah 51.6; 2 Pet.3.11,12
 - *op.cit.* p.58.
 - That it is God Himself who establishes this principle is implied by Paul's remark in Gal.6.7.
 - See e.g. Gen.8.21,22; 9.12_17; Pss.36.5,6; 119.89_91; Acts 14.15_17.
 - It is translated 'of itself', 'of its own accord' in RSV.
 - Gen. 41.28ff; Jer.14.22 (NIV); Joel 1.4_7; 2.1_11,25; Jonah 1.4,17
 - Philosophically this view may be very difficult. But it is not uniquely so. Other precisely_defined views are equally difficult. The matter is further discussed in Chap. XI.
 - Deut. 4.15_19; Rom. 1.21_23; contra Neh.9.6; Ps.148
 - Ps.102.25_28; Matt.24.35; 2 Pet.3.10_13
 - EVER SINCE DARWIN; collected essays, Pelican, 1980
 - Gen.1.27,28; the verses are closely connected.
 - Ps.145.9,16; Isaiah 40.11; see also John 10.11.
 - Deut.25.4; Luke 12.42_48. In Gen.1.28 man is charged to *replenish the earth and subdue it: and have dominion over the fish of the sea . . . the fowl of the air . . . and every living thing that moveth upon the earth* (RV), 'earth' (Heb. *erets*) here clearly having its commonest meaning 'land' in antithesis to 'sea' and 'air'; contrast Ps.85.11 where it

answers to 'heaven'. Gen.2.5,8,15,20 particularise man's charge; it is to *dress* the garden prepared and to *keep it* (RV; *care for it* NIV). Man then *names* the animals and birds, thus expressing his rulership. They included *cattle* (RV, REB; *livestock* NIV) as well as *wild beasts*. This mention of apparently domesticated animals before the Fall is instructive: see my chapter 'The Primal Creation' and Anthony A Hoekema, *CREATED IN GOD'S IMAGE* (Paternoster/Eerdmans, 1986)

- It would be difficult to substantiate claims that propaganda about "man's origin by natural selection". "the survival of the fittest", or Darwin's "Preservation of favoured races in the struggle for life" had ever advanced human happiness or welfare; rather, historically it has been quite otherwise. This doesn't of course disprove the ideas; but it does have a bearing on what we teach our young children. If they had criminals among their ancestors would we be eager to inform them? But if we believed that man was "made in the image of God" we should certainly tell them. Their possible evolutionary connections could wait till they were mature enough to decide the implications for themselves.
- cf. Steven Weinberg (a Nobel prizewinner). *THE FIRST THREE MINUTES* (Andre Deutsch, London, 1977) "The more the universe seems comprehensible, the more it also seems pointless".
- cf. C.S. Lewis, *THE PILGRIM'S REGRESS* (G. Bles, 1943).
- *MYSTICISM AND LOGIC* (Penguin Books, 1953). Russell more or less confirmed this in his Preface of 1917. where he mentioned his failing conviction about there being an objective difference between good and evil, that is presumably, between right and wrong (cf. Dawkins, *UNWEAVING THE RAINBOW* chap.9 Penguin Bks 1999)
 - Dawkins' 'trump card' exemplifies this; see Keith Ward *GOD, CHANCE AND NECESSITY* pp.190ff (One World Publications, Oxford 1996). In the end he realises that he has to descend from his scientific perch to the common level of all thinking men and women, scientists or not. Science cannot prove his case; his 'fundamentalist' convictions, shared by Atkins, Dennett and others (Monod's "Pure chance, absolutely free but blind, at the very root . ") alas, desert him.

The 'Six Days' of Creation >>[back home](#)

The 'Six Days' of Genesis constitute for many the most immediate and possibly the most convincing reason for maintaining that the biblical account of Creation and the scientific evidence are irreconcilable. This however is far from being a necessary conclusion. The 'six days' of creation are never mentioned again after the Exodus narrative closes. Revelation in the Bible is progressive; later revelation may greatly enlarge the scope and perspective of the earlier, and it is so here.

Most well_informed and unprejudiced persons would agree, I believe, that the evidence from geology and the fossil record, reinforced by cosmological observations of such things as the distant galaxies with the red shift of their atomic spectra, strongly suggests a very great age for the physical universe including the earth, an age possibly running into thousands of millions of years. The evidence indeed seems to the writer to point incontrovertibly to this conclusion. That being so, what are we to make of the biblical statement *that in six days the LORD made the heavens and the earth, the sea, and all that is in them* (Exod.20.11)? As the reader probably knows already, there have been many suggestions made by those to whom Scripture is God_given to effect a reconciliation. The 'Gap Theory' 1, (that a long interval is exegetically allowable between the first and second verses of Genesis) is one of the early ones, but it is held now by few. Other proposed solutions have been summarised helpfully in the recent little book by Prof R J Berry 2. The present discussion is not intended to set out some new solution to the problem, but rather to share the reasons which have led the author, without losing any of his convictions about the Bible as wholly God_given, to be prepared nevertheless to accept much of today's neo_Darwinian theory as the best presently_available account of the appearance and development of life in time, and incidentally, the so_called Big_Bang Theory too of the origin of the physical cosmos. Let me (to change the pronoun) begin with my presuppositions. First, the biblical statement that *the LORD by wisdom founded the earth* (Prov.3.19f cf. Prov.8.1,27ff; Ps.104.24) surely implies that God had practical reasons both for what He did and for the way He did it. Second, in a well_known verse (Ps.111.2) the psalmist writes, *the works of the LORD are great sought out of (studied by RSV) all those that have pleasure therein*. While 'works' often means God's acts in history, more often (as no doubt here) it means His works of creation. This seems to suggest that God desires man to share with Him at least some of His thoughts about these, including their 'why' as well as their 'how' 3. The great physicist John Strutt, the 1904 Nobel Prizewinner who later became Lord Rayleigh, had this very text inscribed over the entrance to the Cavendish Laboratory in Cambridge. It is certainly not a forbidden or fruitless exercise to ask about the Genesis account, "Why did God do it this way?" and "Why does the Bible tell us this?" For to be 'made in the image of God' is surely to be able "to think *some* of God's thoughts after Him", as Johann Kepler said. I suggest therefore that this account, given to Israel just freed from bitter slavery, was worded to convey to them God's loving concern to teach them a happy way of life. It was to be based on six days' work followed by one of rest and refreshment; this was to go on as long as life and strength lasted. To cheer them, this was how God had worked - with an obvious difference: there was no night and day for Him, nor did He ever grow weary. I have no doubt that the 'days' in terms of which God told them He worked were chosen thus to encourage them, not to give them mere cosmic information.

In approaching the matters before us we must remind ourselves that when the Israelites came out of Egypt they came out not as a body of well_behaved, disciplined and eager_to_learn men and women, but probably as a disorientated and rebellious mob

which years of bitter slavery had deprived of many habits of healthy and well_ordering living 4. It was into such a rabble that Moses had to introduce _ or re_introduce, it may be, for the common week may be traced back to the very earliest civilizations _ a system of divinely_given laws to be codified later in the Pentateuch. It was a prodigious task with a people habituated to ill_usage, suspicious, and far from homogeneous, as the biblical record makes abundantly plain 5. If a law is vital (especially to this nation's calling as the people of God) it must once given be enforced; it cannot be allowed to fail by default 6. The stern discipline by God in their subsequent history abundantly exemplifies this. But loving wisdom will naturally try persuasion first, by demonstrating desirability; and no doubt before Moses began to instruct the nation of Israel in the new disciplines they were to follow he would have been armed with the strongest incentive to lay before them.

How are these principles illustrated in the biblical record? In Leviticus where the laws are codified most fully the number 'seven' appears very frequently, clearly associated with 'completeness' or 'perfection' in one way or another (e.g. Lev. 25; cf Exod. 23.10ff). One interesting case concerns agriculture 7. For six years their fields were to be sown, but the seventh year was to be a 'sabbath' when they were to be allowed to lie fallow. In the Exodus reference this is placed, surprisingly, even before mention of the weekly routine, which might have been considered to be the more fundamental (in the light of the emphasis of Genesis 1). There follows the remarkable provision of the Jubilee, the year after every seven sevens of years when everyone who has had to sell his patrimony to meet obligations was to receive it back free in full. A release from slavery and the cancellation of debt plus generous help were other seven_year provisions (Deut. 15; modern governments might note). All this indicates that the number 'seven' answers to some important aspects of human living. Most people alive now would probably agree that the familiar week of seven days is 'just about right': it may be recalled that 'weeks' of six and ten days were tried by the French revolutionaries and Russian communists but abandoned. Of all the cyclical physical phenomena to which man is subject the 'day/night' cycle (and so derivatively the weekly one) repeats most frequently and summons him most inescapably (more so than the monthly or yearly cycles, impressive as these are). For both these reasons, if the benefits of the *pattern of seven* were to be fixed successfully and with divine sanction within the culture of this raw nation, the obvious thing was to get things moving to that end at once, and the common week would be the obvious target. The agricultural year and the others would then follow easily enough. It is not surprising therefore that Exodus 20.8ff is worded as it is. Irrespective of what the duration of the six 'stages' or 'phases' or 'chapters' of the divine creative activity may have been, it would have made good sense to refer to them all as 'days'. This would form the basis of a strong imperative to copy the Creator (introducing early the great principle of Eph. 5.1).

It is my conviction that these considerations explain why 'it is written for our learning' that *In six days the LORD made the heavens and the earth . . . and rested on the seventh day*. Man is not being told that before he came on the scene, God had worked at a fantastic rate and got the whole of our planet ready during six of its rotations; for what could have been the particular value of that? God doesn't need to keep His eye on the clock, as we do (Psalm 90.4). No, we are not to think that His 'days' were delimited like ours. This period_word was used to encourage and teach an immature people how they were to organise their new life on a *daily* basis. That at least is my own understanding of the significance of 'days' in Exodus 20.8_11.

This argument will not convince everyone, so let me try to answer some expected objections. "Why use 'days' when it can and does mislead?" Well, 'day' has a

well_recognised figurative use in the Bible 8; and it is used in several different senses even in this brief narrative. "Even so, why was it chosen here?" 9 Let me amplify the answer I have just outlined: if the commandment had said *'in six aeons the Lord made heaven and earth'* would it have conveyed with equal force the call to organise their life on a weekly basis and do so from this very *day*? Hardly. The seven_day week has since become universally a welcome and much_valued institution; but it might well have appeared to the rabble then as an imposition, and left Moses with anxiety that it might fail by apathetic or rebellious procrastination. That is one reason (I believe) why God spoke of His work as done in 'days' rather than in 'aeons' 10, and also why the week of seven days was enforced initially so very strictly 11. "But what of the repeated refrain, *'There was evening and there was morning'* (RV, RSV, NIV), or *'evening came and morning came'* (Moffat, REB)? Doesn't that prove they were literal days?" I don't think so; there are probably clearer syntactical expressions in Hebrew if that had been the intention. There is a better exegesis I believe: the purpose of the refrain is to indicate that *God worked continuously* all through the day till 'evening came', and then all through the night till 'morning came', consistently with the final statement that *God rested on the seventh day* (for which no 'evening' and 'morning' are predicated: compare John 5.17 NIV). The great creation psalm (Ps.104) appears to have its eye on this understanding in its vv.20_23: the beasts prowl in the hours of darkness, then retire to their dens to lie down; man goes out to his labour till evening. But God works without pause (compare Isa.40.28; Ps. 74.16). "But isn't it a fact that in the Bible the word 'day' with a numeral always means a common day"? This too has certainly been claimed 12, and it may possibly have become a rather loose convention later on: but the case of Hosea 6.2 tells against it. The days we are concerned with were before man came on the scene; the first 'numbered days' in the human story are Noah's, possibly thousands of years later 13. The argument is too weak to carry conviction. A better reason for the ordinal numerals is to convey the ideal of an ordered life _ first things first _ in which the creature is to imitate the Creator (Matt.5.48; Eph.5.1). God's work is always characterized by order (Mark 4.28).

'Creationist' problems

'Creationists' maintain that each day's work was completed during one rotation of the earth, a happening they would regard as 'miraculous'. In both the Old and New Testaments miracles are regarded as 'signs'; they signify to those present something demanding attention¹⁴. How can events brought to completion before man was present as observer be placed in this category¹⁵? Their subsequent narration as '24 hr events' can hardly have had an impact like that of miracles witnessed and wondered at¹⁶; it would seem but the giving of pointless information _ unless it had the significance I have previously suggested. I cannot but feel that proposals to force the 'week' of Genesis 1 into a literal mould are a hasty and demeaning exegesis of the word of God. Nothing later in the Bible gains in substance from it, as happens with so many other phrases here: the 'in the beginning'; 'let there be light'; 'seed . . and fruit . . according to its kind'; 'lights . . for signs and seasons'; 'man in Our image' for instance¹⁷.

The Creation 'week' of Genesis is in an obvious sense a unique period, not one of everyday type. Its description therefore, it can be argued, demands the figurative use of everyday language (see e.g. Pss.95.5: 104). The account already uses 'day' in three different senses (Gen.1.5 has two already, and 2.4 a third), and the word is quite widely used elsewhere in a non_literal sense. Its meaning here cannot safely be tied down therefore to the everyday usage, especially when it leads to such extraordinary suggestions as that implied a little earlier¹⁸. To me, the 'six days' represent six 'chapters' in the record of the divine activity; they form part of a didactic narrative, one meant to give realization of 'what happened' as the cosmos came into being so that man can

understand his place in things. It is almost impossible when dealing with great 'historical' subjects to avoid the use of overlapping sub_accounts. Too many important things will be going on at the same time for the telling to be plain linear; the joint history of the kingdoms of Judah and Israel are a familiar biblical example of this. It is unreasonable therefore to suppose that the 'history' of the drama of creation (given in appropriately simple form) could avoid the same treatment, unless the Creator did all things strictly one_at_a_time. Then however it would not tally with common experience, and so would lose instructional value. That is one reason why I do not believe that we are meant to think that what is recorded for each day was delimited precisely by that day rather than being instead its *principle* concern. Nevertheless, the story as a whole moves continuously forward. Days three and four may be understood in this way; we do not need to suppose that the appearing of land plants was complete before that of the sun, moon and stars had begun. The heavenly bodies may well have been in space long before day four but hidden by thick clouds; this would be quite in accord with the Bible's purposeful logic. Other considerations may have entered too. We need to remember that the heavenly bodies were the objects of veneration and worship to many of Israel's contemporaries 19, and therefore for religiously significant reasons a sort of 'servant status' as light_givers has been emphasised, their introduction postponed and their popular names ('sun' and 'moon') withheld. The presentation may be compared with the opening of the Gospel story: the ministry of the Baptist ended (the close of day one), that of Jesus began (the dawn of day two). but they overlapped. Such a feature appears too as already noted in the historical books of the Old Testament with the royal dynasties of Judah and Israel. All this may seem an unfamiliar perspective, but once Genesis 1 can be seen as presenting overlapping scenarios, and as given not to teach cosmogony *to* men but its meaning *for* them _ God's way of working as a pattern for theirs _ it will appear logical enough. Further, the verbs in vv.16,17 may quite legitimately be translated as pluperfects 20 ('God *had made* two great lights . and *had set* them'). Then when on the fourth day God said 'Let there be' lights. a dense cloud cover began to disappear and the two to be seen. This all makes better sense of the whole, and is consistent with the view that cosmic 'science' (as we would now call it) was not then in mind but rather the great priorities for man's life. The phrases 'as signs' and 'to give light' certainly point to this.

There is the profound statement about man and his access to knowledge (to which I shall repeatedly return) in Deut.29.29: *The secret things belong to the LORD our God, but the things revealed belong to us and to our children for ever, that we may follow all the words of this law* _ a declaration of God's purpose whose substance is repeated in many different ways throughout the Bible (see Job 38.4ff; Eccles.3.11; Matt.11.25f; Rom.11.33f; 1Cor.13.12). I insisted in my Foreword that the Bible must be *allowed to define its own terms and to declare its own standpoint*, otherwise the critic is simply playing a fool's game. Well, in this seminal verse the Bible does this. When one considers in this light the grand simplicity, dignity and rationality of the Bible's account of Creation compared with others of antiquity, the Bible's is seen to have a supreme claim to be God_given; and as such it will stand alongside (or rather encompassing) science's own final offering.

Postscript _ A New Testament view of the 'six days'

My final defence for a 'parabolic' understanding of the Genesis 'days' comes from two New Testament passages. The first is from the epistle to the Hebrews, whose writer had a profound understanding of the Old Testament. The eleventh chapter contains a very forceful account of the place of faith in the life that pleases God, and it traces this to a settled conviction that God is Creator, the Unseen Source of all there is. Verse 3 expresses it thus (RSV): *By faith we understand that the world was created by the word of God, so that what is seen was made out of things which do not appear.* This is

generally agreed to mean that the visible world was called into being from nothing (i.e. from nothing visibly there to begin with). However, there is a peculiarity in the Greek: the 'world' is not the word usually anglicised as 'cosmos', but that anglicised as 'aeons', or ages, the universe under its aspect of periods of time. Again, these ages are not 'created' but 'adjusted', 'prepared', 'perfected', 'furnished completely' (Gk. *katertisthai* 21). Hebrew thought is concrete, not abstract like that of science; it does not distinguish sharply the 'ages' from what happened in them. The author of Hebrews (who is celebrating the 'triumphs of faith'), then logically omitting the Fall, goes straight to Abel and after him to what filled the times we now call 'history'. The impression all this gives is that he is thinking consecutively, and that what he means by 'ages' is what the Genesis writer correspondingly means by 'days'. For the statement in Heb.11.3, *by the word of God the 'ages' were prepared, perfected, furnished completely*, parallels the Genesis account of how the 'days' were each filled up appropriately. I am persuaded therefore that the 'ages' of Hebrews are the same as the 'days' of Genesis. This brings us to the critical point: why does the author call them *aeons* (ages) rather than *hemera* (days)? I think the answer has already been suggested: because they were aeons. They had been called 'days' to provide the 'get up and get moving' emphasis those erstwhile slaves needed. To say 'aeons' would have suggested that they could take their own time about it; the new way of life would, surely, get established in the end!

So we may summarise thus: the writer of Hebrews uses *aiones* rather than *kosmos* because his interest centres on time and history, not on the physical and biological features of things. He uses *aiones* rather than *hemera* because his eye is on the Unseen Author (cf. Heb.11.1), of whom it is written (Ps.90; incidentally, by Moses!): *Before the mountains were brought forth . . . even from everlasting to everlasting You are God. . . A thousand years in your sight are like yesterday when it is past, and like a watch in the night.* He is, Paul says, *the King of the ages . . . unto the ages of the ages* (1 Tim.1.17). For the writer of Hebrews to have insisted on *hemera* would have made it look as if God had hurried, a strange thought in the light of the biblical revelation! He has no need to hurry; He *creates* time.

My second New Testament reference comes from the teaching of Jesus Himself (Mark 4.33f): *With many such parables Jesus spoke the word to them, as they were able to hear it* (RV, RSV); *as much as they could understand* (NIV). This introduces a general principle of biblical revelation: it is progressive (cf. John 16.12,13 NIV), and while nothing given earlier is later 'destroyed' or 'abolished' (Matt.5.17ff AV, NIV), new light is now given which 'fulfils' and develops it²². The raw, untutored hearers would naturally take 'day' in Exod.20.11 in the sense familiar to them. It spoke to them about their *day by day* living; and it carried with it inevitably the implication that a start was to be made *today*, no putting_off to some indefinite future. At the end of the forty years' wandering the weekly sabbath would be an established institution. Although the new generation also needed to know Why? (there would be much parental failure to instruct), in his final rehearsal of the Ten Commandments before his death, *Moses makes no mention whatever of the 'six days' of creation*, but stresses instead things more fundamental for man's well-being (Deut.5.12-15; cf. Mark 2.27). This is surely very significant. The 'six days' are in fact never again referred to in the whole Bible: the profounder import of the weekly ordinance had taken over. Let me state again my mature conviction: the 'six days' are not an introduction to cosmogony (which would anyway have been wasted on the recipients); they introduced a God_blessed routine for living. The Genesis phraseology, appealing to God's own example, served a valuable initial purpose _ it was a 'user_friendly' call to imitate God. A literal 'six days' has therefore no bearing on our geochronological science.

NOTES

1 See for instance, Douglas F Kelly, CREATION AND CHANGE (Mentor.1997) This quotes a good number of recent authors and references.

2 Berry, R.J., GOD AND EVOLUTION Hodder and Stoughton, London, 1988

3 For a discussion of Ps.111.2 on this point see Derek Kidner PSALMS (Tyndale O.T. Commentaries, IVP, Leicester); see also note 9 (below).

4 Exod.5.6_21; 12.37_39; 14.10_12; 15.22_24; 16.1_3; 17.1_4; 32.1_6, 25

5 Num.11.4_15; 14.1_12; 20.1_5; 31.14_18; Deut.23.12_14

6 See for instance, Num.15.32ff; Deut.30.19ff

7 Lev.25.1_7

8 Eccles.7.14 RV; Isa.2.11; Jer.50.27 etc.

9 It is common to ask the questions both How? (in the mechanistic sense) and Why? (in the metaphysical or religious sense) about nature. In the Genesis narrative God seems to regard the Why? questions as the more important, giving them His direct attention. For instance, He gives His reasons for setting the heavenly bodies in place (Gen.1.14ff), for creating seed_bearing green plants (1.29f), and for making a helper for man (2.18). He seems to have given man the discipline of science _ observation and experiment _ as the way to ascertain the How? answers (see Isa.28.23_29; Matt.16.2f)

10 See later on Hebrews 11.3 where the Greek is literally, *we understand the aeons to have been adjusted* . .

11 Numb.15.32_36

12 Douglas F Kelly, *op. cit.* pp.107ff

13 Gen.7.11

14 cf. E H Andrews FROM NOTHING TO NATURE 1979 (chap.9)

15 e.g. Deut.6.22; Dan.4.2; Matt.24.24; Luke21.11

16 cf. Dan.3.24ff; Acts 4.16

17 See John 1.1_3; 2 Cor.4.6; Jer.33.20; James 3.9

18 i.e. that the viscosity of water was miraculously lowered on the third day, when the ocean depths and mountain heights were formed.

19 See for instance Deut.17.3; 2 Kings 17.16: 23.11; Isa.40.26; Jer.8.2; 19.13; Ezek.8.16f; Zeph.1.5; Acts 7.42

20 Compare the NIV translation of Gen.2.19 ('had formed'). Hebrew has no separate form for the pluperfect.

21 This is the perfect infinitive passive of the verb *katartizo*, 'to render fit; to furnish

completely, complete, equip, prepare' (Abbott_Smith, MANUAL GREEK LEXICON OF THE NEW TESTAMENT).

22 The saying quoted (Mark 4.33f) refers to 'parables', most of which express general truths. But the parable in Matt.21.33ff refers 'parabolically' to particular historical events, so Mark 4.33f may legitimately be applied to Gen. 1. The comment about revelation being progressive may also be applied to such cases as Gen.2.21ff and Matt.19.3ff; Gen.3.15 and John 12.31_33; Exod.3.6 and Matt.22.31f; Gen.15.6 and Rom.3; Gen.22.1f.14f and John 3.16, 8.56,58; Isa.7.10f and Matt.1.18_25; Isa.64.4 and 1 Cor.2.6_10; Acts 11.4_10 and Mark 7.18,19 NIV. An interesting case which illustrates the principle of Heb.2.17 concerns the providentially_ordered flight to Egypt of Mary and Joseph; Matt.2.13_17, and Hos.11.1.

'Special Creation' _ and Chance [>>back home](#)

It cannot be maintained convincingly that the Bible teaches what is commonly understood by the term 'Special Creation'. It does, however, recognize the category of 'Chance' and itself uses it. But it does so in a way that in no sense limits its doctrine of universal divine sovereignty. Even the outcome of the throw of a die is divinely ordered.

This chapter will deal in a preliminary way with two topics, not closely related but both of the greatest relevance to the current debate: 'Special Creation' and 'Chance'.

What is meant by 'Special Creation'? The subject is an emotive one, for the words have been almost a battle cry (especially in the USA) for a school of conservative interpreters who believe _ as I do myself _ that the Genesis account is God_given 1. The phrase is not always unambiguously defined however, so its meaning must be made clear. It is commonly used by those who wish to deny that all living things have descended 'naturally' from one or a few primitive forms, i.e. to deny what is commonly understood by 'evolution'. Life on earth, they believe, started off with many different 'kinds' being created 'from scratch' (presumably as adults), and that these kept more or less true to form as they bred generation by generation. These original 'kinds' were thought by many to be what would now be called 'species', but many 'creationists' suggest they corresponded to present animal 'families' and plant 'genera' 2. Their identification is thus a little fluid, but the essence of the 'creationist' belief is this: our present life_forms have not all come by natural descent from one or a few very primitive forms, even though all now share a common DNA code; they were created as advanced forms akin to what they are now. A good exponent of this position is the biologist Arthur Jones, and to be fair to it I will quote from a thoughtful book edited by him 3;

"It is on the basis of a long tradition of biblical exegesis that creationists conclude that, in all essentials, the created kinds have always been as they are now. Hence they assume that if processes of variation occur to allow adaptation to changing conditions, then these will operate within clear limits which are never transgressed".

Again,

"Present classifications of animals and plants are partly shaped by evolutionary assumptions, so creationists can give no exact equation of equated kinds⁴ with a particular taxonomic grouping. However, with that proviso, it seems that for animals, created kinds generally correspond to families in current schemes of classification (e.g. the horse, dog and cat families are the horse, dog and cat kinds). In plant classifications it appears that what are now known as the genera are usually the created kinds (e.g. the rose [Rosa], buttercup [Ranunculus], and cabbage [Brassica], genera are the rose, buttercup and cabbage kinds). Historically creationist scientists have been in general agreement on this for more than 200 years."

I hope I have been fair in selecting these passages; they represent views widely held among 'creationists'. However, I wish to argue that they cannot be insisted on as a necessary (or even reasonable) conclusion from the biblical data. What are the biblical passages that are appealed to in defence?

First, there are the general statements in Gen.1.11_12, 20_30 (supplemented perhaps by

the Flood story, Gen.6.19_20; 7.8_9,14_16; and 8.17,19). Second, there are more particular accounts about man and land animals in Gen.2.7,19, and of woman in Gen.2.21_23. There is little else in the whole Bible which directly bears on the issue. How firm is the biblical basis for 'Special Creation' then? The answer is, very weak: and in support of this verdict it is worth looking at the RV of 1884, which though not so pleasing as the older KJV, aimed at being as close to the text as possible. Here is the relevant passage in the first chapter of Genesis:

9 And God said, Let the waters under the heaven be gathered together unto one place, and let the dry land appear: and it was so.

10 And God called the dry land Earth; and the gathering together of the waters called he Seas: and God saw that it was good.

11 And God said, let the earth put forth grass, herb yielding seed, and fruit tree bearing fruit after its kind, wherein is the seed thereof, upon the earth: and it was so.

12 And the earth brought forth grass, herb yielding seed after its kind, and tree bearing fruit, wherein is the seed thereof, after its kind, and God saw that it was good.

13 And there was evening, and there was morning, a third day.

14 And God said, Let there be lights in the firmament of the heavens to divide the day from the night; and let them be for signs and for seasons, and for days and years:

15 and let them be for lights in the firmament of the heaven to give light upon the earth: and it was so.

16 And God made the two great lights; the greater light to rule the day, and the lesser light to rule the night: he made the stars also.

17 And God set them in the firmament of the heaven to give light upon the earth, and to rule over the day and over the night, and to divide the light from the darkness: and God saw that it was good.

19 And there was evening and there was morning, a fourth day.

20 And God said, Let the waters bring forth abundantly the moving creature that hath life [margin, swarm with swarms of living creatures], and let fowl fly above the earth in the open firmament of heaven [margin, on the face of the expanse of the heavens].

21 And God created the great sea monsters, and every living creature that moveth, which the waters brought forth abundantly, after their kinds, and every winged fowl after its kind: and God saw that it was good.

22 And God blessed them, saying, Be fruitful, and multiply, and fill the waters in the seas, and let fowl multiply in the earth.

23 And there was evening and there was morning, a fifth day.

24 And God said, Let the earth bring forth the living creature after its kind, cattle, and creeping thing and beast of the earth after its kind: and it was so.

25 *And God made the beast of the earth after its kind, and the cattle after their kind, and every thing that creepeth upon the ground after its kind: and God saw that it was good.*

26 *And God said, Let us make man in our image, after our likeness: and let them have dominion over the fish of the sea, and over the fowl of the air, and over the cattle, and over all the earth, and over every creeping thing that creepeth upon the earth.*

27 *And God created man in his own image, in the image of God created he him; male and female created he them.*

28 *And God blessed them: and God said unto them, Be fruitful and multiply, and replenish the earth and subdue it; and have dominion over the fish of the sea, and over the fowl of the air, and over every living thing that moveth upon the earth.*

29 *And God said, Behold, I have given you every herb yielding seed, which is upon the face of all the earth, and every tree, in the which is the fruit of a tree yielding seed; to you it shall be for meat:*

30 *and to every beast of the earth, and to every fowl of the air, and to every thing that creepeth upon the earth, wherein there is life [Heb a living soul], I have given every green herb for meat: and it was so.*

31 *And God saw every thing that he had made, and, behold, it was very good. And there was evening and there was morning, the sixth day.*

This is clearly in very general terms; it is quite uncommitted about the physics and biology, the materials and life_processes. On these it could hardly have said less, though the repeated refrain (*there was evening and there was morning* of the RV and NIV, and *evening came and morning came* of the REB and JB) suggests that the divine activity was *continuous* and *progressive*, and this is rather suggestive of an evolutionary scenario 5. It expresses however with indisputable clarity at least two great principles governing created existence. The earth and its fertility are not to be deified or worshipped; rather, they are subject to God's sovereign creative Will. Again, something easily overlooked through mere familiarity is that *like begets like* (note the refrain, 'seed and fruit *after its kind*', 1.11,12); sowing wheat seed yields wheat, not rye grass. This is not just from logical necessity, for it could be otherwise. It is something *contingent*, dependent on God's 'say so', the Bible declares. Paul later uses this weighty circumstance to stress a fact men often forget: when they sow their wild oats they collide not with the laws of logic, but with God's decree (Gal.6.7).

With these things so clear and important it is a pity that this majestic and comprehensive statement has not been accepted simply as it is, for it is surely semantically untouched by Darwin's theory. How has the doctrine of the 'fixity of species' then become such a matter of fierce disagreement? Some reasons may be suggested.

Aristotle (d. 322 BC) had taught that the cosmos had no beginning. Owing to his immense prestige, this became more or less the established view for centuries after; so the Bible's account had fairly naturally long been taken as in harmony with it. Then after some unconvincing suggestions about an *evolutionary* origin came Darwin's of 'natural selection' (1859). This of course challenged the teaching of Aristotle, and so, many doubtless thought, of the Bible. As a result conservative religious opposition was readily aroused, though it was by no means universal. There were strong evangelicals (such as Benjamin Warfield) who thought otherwise; they saw no problem for Genesis 6. Hadn't

the same sort of challenge once faced our understanding of the solar system? Yet no one still thought that the Bible was wrong because it mentioned the rising of the sun and its setting (Ps.113.3)! Others remained unconvinced however; Darwin's theory threatened the foundations of biblical faith. So the battle began and still continues.

What biblical support is claimed for 'Special Creation' then? The most obvious answer lies in the use of the phrase 'after (or 'according to') its kind' (Gen.1.11,12,21,24,25). However, in its first occurrence (Gen.1.11,12) a plain enough ('user_friendly') meaning was that plants would bear seed or fruit that led to a new generation like themselves; it is presuming on the text surely to stretch this to mean what the 'creationists' want _ 'like themselves to all following generations in perpetuity'. The meaning suggested is clear and unpretentious. It leaves the question of 'special creation' untouched. The second group of occurrences (vv.21,24, 25) is a little different in that a propagative function is not noted at once. However it would be natural for the first unsophisticated listeners to take the revelatory statement (about the plants) as meant for the animals also, and to understand that God had created them to have offspring like themselves. Cats were to have kittens and dogs puppies. Did He not immediately command them (v.22) to 'be fruitful and multiply'? This everyday understanding seems an entirely natural one to the present writer. It would have embraced the experience of every hearer.

However, the phrase 'after its kind' probably has another use too. Take such a usage as is found in the food regulations in Leviticus (11.13_23). Certain birds are to be regarded as 'unclean' and not fit for food. The RSV mentions for instance *the eagle, the ossifrage the osprey, the kite, the falcon according to its kind, every raven according to its kind*. The REB has for the last two, *every kind of falcon; every kind of crow*; the NIV, *any kind of black kite, any kind of raven*. The meaning is uniformly 'every sort' of, 'in all their varieties'. There seems no reason why the same sense should not also be read into the passages in Gen.1; these would be immediately intelligible:

And God said. Let the earth bring forth living creatures of every sort., in all their varieties (Gen.1.24 modified),

The references to Noah in Gen.6,7 and 8 really add nothing significant to this conclusion.

The Creation of Man

We come now to the creation of man described in further detail in Gen.2.7,19 and 21_23; the passages are from the RV:

7 And the LORD God formed man of the dust of the ground, and breathed into his nostrils the breath of life; and man became a living soul.

8 And the LORD God planted a garden eastward, in Eden; and there he put the man whom he had formed.

9 And out of the ground made the LORD God to grow every tree that is pleasant to the sight, and good for food; the tree of life also in the midst of the garden, and the tree of the knowledge of good and evil.

19 And out of the ground the LORD God formed [had formed NIV] every beast of the field, and every fowl of the air; and brought them unto the man to see what he would call them: and whatsoever the man called every living creature, that was the name thereof.

20 And the man gave names to all cattle, and to the fowl of the air, and to every beast of

the field; but for man there was not found an help meet for him.

21 And the LORD God caused a deep sleep to fall upon the man, and he slept; and he took one of his ribs, and closed up the flesh thereof:

22 and the rib, which the LORD God had taken from the man, made he a woman, and brought her unto the man.

The immediate impression this passage gives is that man's origin had no connection with that of the lower animals; but that would be a hasty conclusion. The verb 'formed' in Gen.2.19 may legitimately be translated as 'had formed' (pluperfect 7), so that man was formed *on the same day* as the animals, and of '*dust from the ground*' as they were. But certain great differences do nevertheless appear. What are they?

First, after God had consulted within His own person (Gen.1.26), He addressed man and woman as persons themselves ('He said *to them*', 1.28). This implied the gift of language; widespread authority and responsibility followed. Second, it implied also what we call 'free will'. Man as fellow_worker was now under the *obligation of obedience*⁸; disobedience became a possibility the animals hadn't known. To those living today these great biblical affirmations are pressed home (often in an unwelcome sense) by personal experience; they explain why conscience is often troublesome, and why civilization's future seems at times too dark and hopeless to think about. Neo_Darwinism is quite out of its depth here; how does the Bible deal, with our predicament?

The death of Jesus Christ on the Cross had a *substitutionary* character, it declares. He was both God and man 9,10; had he not been so he could not have been man's Redeemer 11. Its witness is very positive (see Mk.10.45; Rom.3.23_26; 1Tim.2.6; 1Pet.1.17ff; Heb.9.7,12,23ff). His vicarious death was valid *precisely because of His descent from a woman* (Gal.4.4f; see also Heb.2.14_18). Before the Incarnation, atonement had been provided for by instructive but ineffective rituals involving animal sacrifices which served as 'shadows' of something better to come¹². These rituals had a palpably substitutionary character. Their vindication (before heavenly onlookers?) as justification for forgiveness to men had to await the cry from the Cross (John 19.30); but before that the rites had to be as didactically impressive as possible. It can be argued that if there had been no actual *biological* relationship between man and the animals, 'atonement' by their substitution as victim would have failed in this very important respect, i.e. didactically. Man's 'Special Creation' would have meant this: relationship in this biological kinship sense is therefore an Old Testament presumption. I would not wish to press this argument, but it is not without considerable force.

There is a final reason for maintaining that Scripture does not discourage a belief in a link between man and the lower animals. It is drawn from the New Testament and so appeals to the fundamental truth of the unity of Scripture. The New Testament teaches that when a rebel sinner is reconciled to God by faith in Jesus Christ he receives a gift, the Holy Spirit (Acts 2.38). This reception, prefigured by the action of Jesus *when He breathed on them and said, 'Receive the Holy Spirit'* (John 20.22), recalls vividly the Creator's original 'breathing' in Genesis 2.7, which was uniquely on man. It makes a sinner now a 'new creation' (2 Cor.5.17), but without breaking any *biological* link. This parallelism would seem to go a long way towards justifying the understanding taken here of the original creation of Adam _ a *sub_human* was changed by the breathing into his nostrils '*the breath (nesama) of life*' (RV) into a true man (cf.Eccles.12.7)¹³. But for the moment we shall leave this matter till a later chapter.

The Bible and Chance

We pass now from the discussion of Special Creation to that of 'chance' _ or rather the biblical understanding of 'chance'. What is the biblical attitude to this tendentious notion? First of all it must be recognized that 'chance' is a category which the Bible itself uses; it is regarded therefore as legitimate, at least in certain contexts. It is important to see what these are. Eccles.9.11 is an illuminating verse in this connection. *The race is not to the swift nor the battle to the strong _ necessarily or always that is _ but time and chance happen to them all*. Sometimes, in other words, the unexpected and unpredictable takes place. Man never has total certainty in these things; an element of ignorance always remains. *It is this element of human ignorance 14 that is covered by the idea of 'chance'*. It should be noted that the writer is speaking of what can be 'observed' _ that is, what is 'under the sun' (see REB). In the invisible world of the spirit therefore, 'time and chance' have no foothold; at least, the writer is not here giving them one. Incidentally, since 'observation' is the very basis of the scientific method, 'chance' according to this verse would be a useful concept for science as in the derivation of such results as the Maxwellian distribution of molecular velocities in gases.

Jesus's use of the term in the Parable of the Good Samaritan (Luke 10.31) is similar. *By chance*, he says, *a priest was going down that road*. The priest had not known the injured man lay there; otherwise one presumes, he would have altered his itinerary. 'Chance' is here used to betoken human ignorance; and that, in the last resort, is *its only legitimate context* for the Bible.

Now man has had, ever since his primal act of disobedience, a sad but understandable reluctance to meet God 15. However, most people can hardly escape being religious at some time; it is something too deeply built_in. So what does the common man do then? Without any real deliberation he makes his own god, of a sort which won't impose unacceptable demands on him, and which he can quietly manipulate. The mysterious and unseen, of course, must enter into its constitution, or it would hardly be a god. So he thinks around for something suitable, and 'Chance' suggests itself. It accordingly becomes semi_deified, an active agency in its own right. Something of this sort is castigated by Isaiah as he thinks of the religious reverence given to Fortune and Destiny 16, where Fortune is an idea not so very different from the one we are considering. But the thinking behind all this is futile self_deception, Isaiah declares 17, and when God arises in judgement all such idols _ Fortune, Destiny, Chance, Luck _ will be swept away. They can't *do* anything 18, and in the final reckoning they will be seen for what they are _ non_entities 19.

But the Bible goes further than this. While there are things we don't know, there is nothing God doesn't 20. So there isn't really such a thing as 'chance' for Him. God is the Master of all things, and He disposes even the throw of the die 21. For instance, when the people of Israel entered the Promised Land, it was divided to them by lot, but it was God who decided whose was what 22. Thus Judah obtained Jerusalem, appropriately to the divine purpose that it should be the ruling tribe 23.

Nowhere, perhaps, is the providential ordering of 'chance' events so dramatically asserted as in the story of the death of Ahab, an evil king of Israel. The story is told in 1 Kings 22. Ahab had seized the vineyard of Naboth after Jezebel his queen had procured the death of Naboth by stoning on a trumped_up charge. This brought to a head Ahab's long career of wickedness, and Elijah was sent to pronounce judgement against him (1 Kings 21.17f). For three years the sentence was delayed. Then Ahab joined his neighbour Jehoshaphat in an attempt to recapture Ramoth Gilead. He was an old hand at the art of war, and when the prophet Micaiah repeated the warning of Elijah, Ahab resolved to go into the battle

disguised. The ruse was apparently successful; Jehoshaphat drew the enemy fire and the enemy turned his attention away from Ahab's sector. *But*, the biblical historian records, *a certain man drew his bow at a venture (at random, REB) and struck the king of Israel between the scale armour and the breastplate*; and mortally wounded, Ahab withdrew from the field 24. An obscure archer, a random arrow, a small weak area in the armour – what could more vividly convey the sense of the controlling providence of God? Ahab's final ignominious end was exactly as foretold by the prophet 25.

Scripture is, in fact, full of cases where 'chance' coincidences fulfilled God's purposes. Inasmuch as these were often foretold we cannot regard them as merely cases of literary opportunism on the biblical writer's part; God's decisive plan produced the occasion, not vice-versa. Thus Joseph was sold into Egypt 26; Ruth became the progenitrix of Jesus 27; and Jesus Christ was born in Bethlehem 28. A difference of a few days, or a few yards, in quite small events would have altered the course of history (often prophetically-foretold history), very significantly.

To the Bible, therefore, the fact that an event can be spoken of legitimately in terms of chance, hap or randomness in no way removes it from the sphere of God's directing providence. *The lot is cast into the lap, but the decision is wholly from the Lord* (Prov.16.33). That is a truth Jesus would have us continually remember. *Not a sparrow falls to the ground without your Father's will* (Matt.10.29 RSV,NIV).

Summary

Our conclusions therefore in this chapter can be readily summarised. 'Special Creation' (as earlier defined) is a view that cannot be established unequivocally from the biblical data. That the Bible has been incautiously held to teach it is of no more significance than that Psalms 93.1 and 104.5 have been held to teach the motionlessness of the earth in space, or that other (so it is sometimes claimed) references teach that the earth is a flat disc; an intelligent study of the way the Bible uses words in such contexts would have shown that the understandings mentioned were unjustified 29. The same is true, if a little less obviously, of 'Special Creation'. Those who insist on the latter have felt compelled in its defence to try, in a rather contrived way, to distinguish between biblical 'kinds' and what we understand today as 'species'. This is a risky procedure, for by doing so they at once open the door to a considerable degree of evolutionary speciation. Lion and tiger, two species; one kind? Where does one draw the line? Is the whole cat family included in this 'kind'? What about the cheetah then? 30 And so on. The whole idea of the fixity of species – or 'kinds' – seems to derive in some degree from long-term tradition, possibly from Plato's doctrine of fixed 'Forms' or 'Ideas'. This seems far more likely to have given rise to that of the 'fixity of species' than anything Genesis has to say. If that is so, it constitutes a strong argument in favour of the point being made here.

'Chance', on the other hand (the Bible allows), is a perfectly valid notion within the context of human ignorance. This is where in fact, science finds it so valuable. Attempts to give it a wider validity than this and to imply that God has so constituted nature that even He does not know the outcome of ultimate events (that is, that 'God plays dice' 31), find no warrant in the Bible. It will be argued in a later chapter that the emphasis in Physics on chance and indeterminacy is not incompatible with the biblical view of all things under the hand of God. For the moment it needs only to be stressed that the 'chance' element in evolutionary theory presents no difficulty to biblical theism. This was realized by conservative theologians like B.B. Warfield and James Orr in the past 32. There is no reason to modify their conclusion now.

NOTES

- 1 Article 20, Book of Common Prayer
- 2 SCIENCE IN FAITH ed. Arthur Jones, The Christian Schools Trust 1998
- 3 *op. cit.* p.67
- 4 For the following discussion on the meaning of 'kinds' two valuable papers are P. H. Seely, The meaning of *Min*, 'kind', *Science and Christian Belief* 9(1) 1997; and John W. Olley, Further observations on *Min*, 'kind', *ibid.* 11(1) 1999; also Appendix 3(ii)
- 5 I claim no more.
- 6 See DARWIN'S FORGOTTEN DEFENDERS David N. Livingstone, Scottish Academic Press, Edinburgh, 1987.
- 7 There is no separate form for the pluperfect in Hebrew: see NIV
- 8 i.e. moral law
 - John 1.14; Heb.2.14
 - Ga1.4.4; Rom 1.3,4
 - Heb.2.17,18
 - Heb.10.1-8
- 13 It should be noted that 'breath' and 'spirit' are translations of the same word in both Hebrew and Greek.
- 14 Sometimes of a physical cause, at others of a human purpose.
- 15 Gen.3.8; Job 21.14; Rom.1.18
- 16 Isa.65.11f RV, NIV
- 17 Isa.44.20
- 18 Isa.41.22f
- 19 Isa.57.13; Jer.10.11
- 20 Ps.139.1_5; Isaiah 40.27,28; Jer.23.24; Luke 12.6,7
- 21 Prov.16.33
 - Josh.18.10; Psa.16.5,6 (NIV); 47.4; cf. Acts 1.24_26
 - Gen.49.10. Jerusalem was, in fact, just inside the neighbouring small tribe of Benjamin, closely associated with Judah (1 Kings 11.32: 12.21).
 - 1 Kings 22.34
 - This story illustrates one conspicuous aspect of the Bible's teaching complementary to others: God's activity is not to be thought of as something *superadded* to the common course of history, or *injected into* it. Rather, it fills the whole of history (see such suggestive passages as Gen.45:4_8; Deut.32.8; 1 Kings 11.14; Ps.135.6_12; Amos 3.6; Matt.26.31 with Zech. 13.7; Luke 22.37 with Isa.53.10,12; Acts 17.26; Rom.9.17; Eph.1.9_11; and *passim*. This paradoxical position is illustrated and (as far as meets our need) justified by the analogy of an 'author'; see later chapters.

26 Gen.37.25,28; cf. Gen.15.13f; 50.20

27 Ruth 2.3; cf. Matt.1.5

- Luke 2.1ff; cf. Micah 5.2

- Compare Pss.112.6 RV; 96.10; Prov.12.3 in the RV (the Heb. verb 'move' is the same as in Pss.93.1 and 104.5 quoted). See also the chapter 'The Primal Creation'.

30 The cheetah seems to have affinities outside the cat family as well.

31 A disbelief of Einstein's in fact. See also chap. XII

32 J.R. Moore, THE POST_DARWINIAN CONTROVERSIES (Cambridge, CUP 1979)

The Primal Creation >>[back home](#)

The primal creation, though it was pronounced 'very good', was not an idyllic paradise. The great Adversary had access to it; it was perhaps designed to be the scene of his defeat. It was created as it is now, 'subject to futility', with elements of fear, predation, pain and death. Man was given the task of subduing it and bringing it to harmony. Through an act of self-will at the beginning of human history he failed in his mission. Creation fell under the curse of disappointed hopes and broken relationships. It awaits man's final redemption and the uniting of all things in Jesus Christ.

It is common knowledge that the Bible teaches that after God's initial work of creation something tragic happened in the Garden of Eden: man disobeyed his Maker, and brought disaster on the race. The nature and extent of this disaster (according to the Bible's own testimony) we shall have to look into later; first we have a more immediate matter to consider – the character of the physical creation as it first left the hand of God. What was it like? My own conclusions about this primal creation (as we may call it) are going to be rather different from those which have commonly been held, so a brief statement may be helpful at the outset to set the matter in context.

A common view of the primal creation is that suggested by Milton in *Paradise Lost*: Eden was a Paradise, a place of ideal bliss. But even outside Eden (since the epithet 'very good' is applied to the whole creation in Genesis) there was nothing to 'hurt or destroy' 1. Diet for both man and the animals was wholly vegetarian, and there was no pain, disease or fear among them. Perhaps there was even no death; certainly there wasn't for man himself. In the physical world earthquakes, droughts, volcanic eruptions, storms and such like were probably unknown. In fact, everything was idyllic – until man sinned. Then things changed dramatically for the worse. This is probably a fair statement of what has been held by many (and is still held by many) to be the Bible's teaching. Against this I shall argue that the primal creation was not idyllic; that some animals were predators, and that all were mortal; that even man himself was probably a flesh eater; and that storms and floods were as much a matter of course then as now. This to many will be a fairly radical reinterpretation, and I shall have to set out carefully my reasons for adopting it. It would be disingenuous to maintain that it had no attractiveness as making a reconciliation with the scientific view easier. It obviously has. But it seems to me, nevertheless, to be a valid conclusion (I am claiming no more) from the biblical teaching. Let me give my reasons.

The view that the primal creation was perfect is based principally on the repeated statements in Genesis 1 that the work of the successive days was 'good' 2. Except for minor variations at first, the formula which announces this is quite uniform and in the singular; *'it was good'*. It seems reasonable to suppose therefore that it was the *action taken* to which the 'good' primarily applied. At the end, God saw all that he had *done* 3, and *'it was very good'* 4. In the common view, this is effectively taken to mean that, judged from our present day standpoint, everything was there and then perfect; the whole contained no single source of disharmony. This conclusion is hardly beyond question, as I shall try to show.

A supporting argument for the common view is based on Gen.1.29,30: *Behold, I have given you every plant for food*. On the face of it this appears to say that man and the animals at the beginning were wholly vegetarian. This conclusion is apparently

reinforced by God's words to Noah when the earth was re_peopled after the flood: *Every moving thing that lives shall be food for you; and as I gave you the green plants, I now give you everything* 5. This is a new concession, it seems, made to man fallen from innocence. With it comes 'fear' and 'dread' of him into the animal world. Interpreted thus, this reference adds its support to the view under discussion. All_in_all therefore, it has been argued, the Bible gives us the picture of a primal creation where all was harmonious, was where the predatory habit, and fear and pain were unknown. The Messianic age it seems, will restore this, for then, *they shall not hurt nor destroy in all my holy mountain* 6.

Now the trouble with this view is that it jumps to conclusions I believe, too quickly. It makes the assumption, for instance, that it knows exactly what the Bible means when it says that what God had 'made' or 'done' was 'good' or 'very good'. It tends to make these epithets absolute, instead of relative, and this is especially apt to mislead when the verb is translated *made*. But if they are taken as relative (as in some sense they must be, for God alone possesses absolute goodness)⁷ a natural question is, relative to what?; and an obvious answer is, relative to the purposes of the Creator. Before we consider the wider question this raises it is worth noting a minor parallel, also from the Pentateuch. The land of Canaan where Israel was to start its national life God pronounces *a good land . . . flowing with milk and honey* 8. Yet in spite of this it was occupied by fierce aliens; it required both hard fighting to possess it and hard work to exploit it; and it remained surrounded by potential enemies. Its God_declared 'goodness' did not reside in its splendid climate; superlative scenery, natural resources, freedom from threat and whatever else makes people happy; we could all probably think of places much better. It resided rather in its eminent suitability for God's purpose of blessing and training His chosen people.

What of the question then of the purposes of God in creating our physical cosmos (or should we restrict ourselves to the earth, Luke 4.5ff)? Here Milton is almost certainly on biblical grounds in linking our destiny with other and non_physical orders of creation. The Bible bears witness to the fact that our cosmos is not all that God has created. Jesus spoke of the angels, good and bad 9; Peter writes of angels, *authorities and powers* 10; Paul of *the wiles of the devil. For our wrestling is not against flesh and blood, but against the principalities, the powers, the world_rulers of this darkness, against the spiritual hosts of wickedness in the heavenly places* 11. Of course, belief in such orders of created intelligences (particularly evil ones) is widely rejected today, especially in educated circles. Why? 'Theological and philosophical fashion' is the principal answer. There is no actual evidence against this belief; on the contrary there is a great deal of evidence for it 12. The devil (to be particular) may be out of contemporary scholarly favour, but clearly he's not out of a job. Like all wreckers he prefers to work in secret, unrecognized and unsuspected, so the present climate of opinion is not surprising, and no doubt suits him well 13.

Now the bearing of this on our subject should be obvious. The primal creation was one to which, in the wisdom of God, this great Adversary had not only access, but actually authority¹⁴. Why is not clearly revealed. What the Bible does tell us is that the work of Christ, conceived in heaven and wrought on earth, has reference to more than just the plight of humanity, however central to it that may be. *He must reign till he has put all his enemies under his feet*, Paul writes; and this includes Satan and the fallen angels 15. In this work of overcoming angelic rebellion and handing over the kingdom to God the Father 16, humanity has a central significance. It is 'through death' at the hands of men that Jesus *destroys him that has the power of death, that is the devil* 17, and it is through his death, confessed by faith, that redeemed humanity itself overcomes the devil and

participates in his defeat 18. Thus, Paul says, it is *through the church* (i.e. the body of believers) that God the Creator makes known *His manifold wisdom . . . to the principalities and powers in the heavenly places* as He fulfils His eternal purpose to unite all things in Christ Jesus as Lord 19.

What all this suggests is that God had a purpose in the creation of our physical cosmos that reached beyond it, just as He had a purpose in calling Abraham that reached beyond his own race 20. He already had a rebellion on His hands, and our world was to be the scene of an act (of supreme cost and self_giving) by which He would not only reconcile our world to Himself (for that world would join the rebels) but also achieve the end of all rebellion and bring in everlasting righteousness 21. If we accept this, it is bound to influence the view we are prepared to take of the primal creation. We shall hardly expect the latter to be a state of perfect bliss, an idyllic paradise. We shall rather be ready to understand the 'good' and 'very good' of Genesis 1 in terms of the stern (but loving) programme the Creator had in mind for His new creature, man. At this programme we must now look.

It is expressed in the mandate given to man in Gen.1.28 which reads, *Be fruitful and multiply, and fill the earth and subdue it; and have dominion . . . over every living thing..* This mandate charged man with 'subduing' the earth 22. The Hebrew word for 'subdue' is *kabas*, and in all its other occurrences in Scripture (about twelve in all) it is used as a term indicating strong action in the face of opposition, enmity or evil 23. Thus, the land of Canaan was 'subdued' before Israel, though the Canaanites had chariots of iron 24; weapons of war are 'subdued'; so are iniquities 25. The word is never used in a mild sense. It indicates, I believe, that Adam was sent into a world where *not* all was sweetness and light, for in such a world what would there be to subdue? The animals, it suggests, included some that were wild and ferocious 26; and Adam was charged to exercise a genuinely civilizing role and promote harmony among them 27. In fact, this function is set out very suggestively in Psalm 8, where man's Godlikeness, his strong delegated authority (*all things under his feet*), his encounter with opposition (*the enemy and the avenger*) and the secret of success (the open celebration of God's glory, *even by babes and infants*) are the significant emphases. What man failed to do it fell to the lot of Jesus the Messiah to accomplish, and it is no surprise, therefore, to find this psalm referred to Jesus in the New Testament 28. All this seems to justify us in believing that man's role was designed to be a Messianic one 29.

We pass on to consider what is involved in the 'dominion' over the animal world with which man was charged. In common with 'subdue', the idea here is, as von Rad notes 23, "remarkably strong". It would seem indeed rather inappropriate if all man had to do was to exercise a gentle beneficence. What then did it involve? Permission to use animal flesh (as well as plants) for food? Calvin certainly had an open mind on this question 30. I shall argue at once that it did, and then attempt finally to reconcile this viewpoint with the statements of Genesis 1.29 and 9.2,3.

Soon after the expulsion from Eden man was keeping sheep 31. Indeed animals of a domesticable sort seem to have been explicitly included in the initial act of creation 32. The occupations of Cain and Abel are introduced in a strictly parallel fashion; the presumption is therefore that their purpose was similar, in the main to provide food and clothing. Abel's sheep can hardly have been only for religious sacrifice, as has been urged; for Abel brought only the firstlings as an offering. Further, of those sacrificed only the 'fat portions' appear to have been burnt 33. There is a strong presumption therefore that part of the sacrifice was eaten by the worshipper, (a practice to be regularized later in Israel's history). Again, sacrifice was not apparently a frequent event 34; it can hardly

therefore have been the main purpose of Abel's sheep_keeping. If this main purpose was to provide skins for clothing 35, what happened to the carcasses? They can hardly have been left to rot, for how then could they ever have come to be regarded as a thing worthy to be offered in sacrifice? The biblical record seems therefore to point to the conclusion that man was, at least as early as Abel, a regular eater of animal flesh, and not only so in connection with sacrifice. Can we go further back than that? Yes, possibly. We have the statement that immediately subsequent to the Fall the *Lord God made for Adam and his wife garments of skins, and clothed them*. We need not suppose that this means that the Deity physically fabricated the garments Himself; rather He gave the word of instruction to Adam and his wife themselves or even to some angelic servants (cf. Gen.19.15f). But nothing is said about how the skins were to be acquired. Presumably this was by slaughter; but if this had been a radically new departure for man it is plausible to argue that this would have been made explicit. It is at least possible therefore that skins were ready to hand, having been used up to that point perhaps to construct shelters. This takes us back therefore to before the Fall, that is, into the primal creation.

We turn to the New Testament evidence. There is an important reference to what was almost certainly the eating of flesh 36 in 1Tim.4.3,4. Paul is warning Timothy against those who *forbid marriage and enjoin abstinence from foods which God created to be received with thanksgiving by those who believe and know the truth*. This is a strongly worded statement, with no obvious reference to the postdiluvial concession of Genesis 9:3. Rather, *created* 37 takes us right back to Genesis 1, an impression reinforced by the next verse: *for everything created by God is good*, as that great chapter stresses. We may conclude therefore that Paul is referring to the primal order before man fell, and that man's 'dominion' then included the use of flesh for food.

A quite distinct argument concerns the practice of Jesus. Even after his resurrection, *in the power of an indestructible life* 38, he himself partook of animal food and provided it for others³⁹. Would this have been likely, it may reasonably be asked, if the eating of flesh had been a concession to man as fallen sinner? Concerning marriage _ coupled with foods by Paul in the passage we have just examined _ Jesus did not hesitate to re_direct his disciples' obedience to the creation ordinance established 'in the time of man's innocency' 40. If man was in the time of his innocency a pure vegetarian why did not Jesus re_direct his disciples to *this* ordinance too, instead of ignoring it? It would have been quite practicable (as experience both then and now confirms), and *ex hypothesi*, probably beneficial. I believe the right answer is that pure vegetarianism was not a creation ordinance *in the sense in dispute*; that is, it did not represent the primal *status quo*.

There remain to be considered two outstanding passages in Paul's epistle to the Romans. The first is Romans 8.18_25, especially the statement in verse 20: *the creation was subjected to futility not of its own will but by the will of Him who subjected it in hope* 41. This statement is most often interpreted as referring to the curse of Gen.3; yet the whole passage quoted has no noteworthy verbal affinity with the latter, whose memorable language Paul might so easily have taken up into his own rhetoric, in the manner he so often adopts 42. It is true that there is an affinity of *ideas* between the two passages, Paul's picture of the *whole creation groaning in travail* recalling the words to Eve of *pain in child_bearing greatly multiplied*, and death forming another link (if we interpret 'futility' as implying death). This we can agree. Yet I still feel a difficulty besides that lack of obvious verbal affinity. To extract the whole range of animal sorrows _ predation, savagery, jealousy, fear and death, with all else that could be read into 'futility' _ from the simple terms of the curse (which mentions only *the ground . . . thorns and thistles*) is to go far beyond what those terms themselves suggest. It is surely sounder exegesis to limit the

meaning of the curse as far as possible to what it actually says, if this yields an adequate sense; and the sense that man's relationship with his natural environment was henceforth to be a blighted one is serious enough. We shall discuss it further below. What is being suggested therefore is that we should abandon an interpretation that equates the *subjection to futility* simply with the Genesis curse, and understand it instead as referring to *the primal creation itself*. Meanwhile, it is not necessary to dismiss as of no significance the presence of the two important ideas (*travail* and *death*) linking Paul's passage and the curse; they retain importance as part of the wider view.

There is, moreover, an objection of a different sort to the traditional interpretation of this great passage. To identify the *subjection to futility* with the curse is to anchor it to a particular moment *within history* 43; it is from this moment that Paul's thought is made to take off. But Paul does not seem to be in such a temporally_limited frame of mind in this chapter; witness verses 29 and 30, where the span of his thought is from foreknowledge (before history began) to glory (after it has ended). Is it not likely, we may ask, that the same is true of his thought in the passage we are discussing? If this is so, its span would then be from the very conceiving of the physical creation to its fulfilment in the *liberty of the glory of the children of God*. On this understanding of Paul's words the *subjection to futility* comes within the purview of Genesis 1 rather than of Genesis 3; this is what we have been maintaining.

The second passage is the moving peroration with which Paul closes the eleventh chapter of Romans (11.33_36 NKJV):

Oh, the depth of the riches both of the wisdom and knowledge of God! How unsearchable are His judgements, and His ways past finding out.' For who has known the mind of the LORD or who has been His counsellor? Or who has first given to Him, and it shall be repaid to him? For of Him and through Him and to Him are all things, to Whom be glory for ever. Amen.

Of what is Paul thinking when he uses the words 'unsearchable' and 'past finding out'? Principally, no doubt, of God's ways as Redeemer. But he can hardly be thinking exclusively of these. One of his principal lines is from Isaiah 40, a chapter rich in allusions to creation. Further, the *from, through and to* of Romans 11.36 is too close to other similar Pauline passages 44 for it to be denied that God as Creator is also in view here. Now it is clearly inadmissible in the case of redemption to limit this great ascription of praise to a historical process which began only with Adam's sin (as if redemption was an *ad hoc* idea only then conceived by God). In terms of time it *must* span the whole of God's revealed activity (and more) from Gen. 1.1 onwards: *the hidden wisdom which God ordained before the ages for our glory* 45. But if that is true for redemption it is *a priori* likely to be true for creation also. Again, Paul powerfully asserts that God's ways run utterly counter to what human wisdom would expect: *God has consigned all men to disobedience that He might have mercy upon all* 46. He is speaking here, of course, of God as Redeemer; but again there is no reason to disbelieve that God's ways as Creator partake of this same character. They too are 'unsearchable' and 'past finding out', and that from the very foundation of the world. They no more make sense to natural human wisdom than does God's plan of salvation. For this reason therefore I find no difficulty in believing that, in God's inscrutable wisdom, the animal world was *created* subject to futility 47; that is, subject to the same imperfections as we see it to have now. Man failed in his mandate to lead it to liberty 48, and now he is himself in thrall to futility and death and awaits his own final redemption. With his revealing in glory as God's son, Paul asserts, the animal creation too _ and no doubt more beside _ will attain its own glorious fulfilment, and its travail will be at an end. This is the cosmic hope to which it is looking

forward. If it be objected to this reading of the scriptural evidence that there is a grave moral difficulty in believing that God created animals subject to such evils as have been outlined (for example, death and predation) there is an immediate reply. Is it in principle less of a difficulty to believe that he would have subjected them afterwards to the same evils through no fault of their own? 49 Surely not; for the evils we are thinking of go far beyond what a mere solidarity between man and the animals would naturally entail 50 . Thus the moral objection seems to cancel itself out; it is one of the deep things not yet made known to us.

I am not maintaining dogmatically that the view advanced here is without doubt the Bible's teaching; but I believe that it is sound exegetically, and it seems to make better sense than the usual view. Of course, as we noted earlier, it is easier than the latter to harmonize with the theory of organic evolution; but that should not be allowed to prejudice us either way. Nevertheless, were the cases for both interpretations hermeneutically exactly equal, evidence of an extra_biblical (i.e. scientific) nature should surely be allowed to influence the view we take. This principle has been universally accepted in connection with the interpretation of biblical passages which seem prima facie to suggest the mechanical fixity of the earth (e.g. Pss.93.1; 104.5), and the result has been a genuine deepening of our insight into Scripture. It is at least possible that the same may be true in connection with our understanding of the primal creation, and that, here too, study of nature has a little to offer. I firmly believe that Scripture implies that it is God Himself who teaches man the principles used in science (see Isa.28.23_29), and I have defended this view elsewhere 51. All truth is God's truth; and nothing is to be rejected if it is received with thanksgiving (1Tim.4.4).

We may summarize this understanding of the primal earth as it was 'in the time of man's innocency' as follows:

(1) It faced a brooding, antagonistic and personal 'Power of darkness', of whose origin the Bible tells us little 52. It was destined to be the theatre of his overthrow, and this seems to be already implied in the very strong mandate given to man. The primal creation can hardly therefore be regarded as idyllic.

(2) The Bible gives us no real reason to doubt that in its general physiography and its flora and fauna the primal earth 'in the time of man's innocency' was essentially the same as it is today; that is, that there were predators and herbivores, fruit trees and thistles, sunshine and storm, and much else that we now see.

(3) The primal creation was nevertheless 'very good' in view of the purpose God had in prospect for it.

Man was to play a key Messianic role, and the outcome of his filial obedience (we may conjecture from reading the Bible more widely) would be a happy race of men and women filling the earth, living in complete harmony with one another and their environment and revelling in the divine presence. The earth's physical turbulence would have been subdued for beneficial use; the animal creation civilized and brought into concord by the gentle elimination of discordant elements 53; and the plant world encouraged into luxuriance and beauty. We are not to suppose that the Curse (which will be discussed later) altered the direction of man's endeavours to master the earth; it only soured and largely perverted them. The mandate originally given to man was to eradicate everything hurtful, promote peace, organize plenty, and attain in himself a wondering comprehension of the world he lived in. The setting of the primal creation provided for this programme to go ahead with speed and success; and the far_reaching directive of

Gen.1.29,30 (*I have given you every plant yielding seed . . . and every tree with . fruit . and every green plant for food*) is interpreted accordingly, and in harmony with other scriptures. It was not what was there and then in force, but a goal to be worked to. Had man lived in filial obedience all this delightful outcome would have been happily and no doubt speedily achieved 54 . That was why God saw all *that he had done, and behold it was very good*. Alas _ but that is another story.

The Genesis witness has far_reaching significance. Some great Eastern philosophies 55 are world_ and life_denying. Existence, they teach, is an evil thing. Something of their attitude spasmodically appears in Western society: "Stop the world, I want to get off." Against this the Bible is robustly world_ and life_affirming. Creaturely existence is good, it says. But that is not quite all. It is to get better. Hope, in the Bible, is one of the three outstanding things (*faith, hope and love*) which 'are always there'. Significantly therefore, the present interpretation implies that hope was in full exercise from the very first. Man was not brought on to the scene to enjoy a physical creation already perfect and looking forward to nothing better. Rather, as the first creature with full self_consciousness, to be a fellow_worker with God 56, he was given the task of leading the animal world to a fuller liberty and more pleasurable life. This conclusion gains in significance from understanding Paul's *subjection to futility* as a reference not only to the curse of Genesis 3, but also to the creation_work of Genesis 1. *Paul's eager expectation* (i.e. 'hope') thus assumes an earlier and more fundamental place in God's scheme of things 57. That is surely, as it should be, entirely appropriate for one of the three things which 'abide' and are always there (1Cor.13.13).

Conclusion

The subject of the present chapter is one on which the Bible leaves us 'knowing only in part' (1Cor.13.9), as it does the vast question of the origin of evil. But it indicates clearly (Eph.3.9f) that there are invisible realities concerned not open to scientific enquiry. What this chapter has attempted to do is to think of the 'primal creation' in the light of these realities also, headed up as they are by the Serpent (Rev.12.9). This approach is surely a biblically valid one.

NOTES

- 1 cf. Isaiah 11.9
- 2 Gen.1.4,10,12,18,21,25. The verb (in italics, KJV) is understood.
- 3 The Hebrew verb *asa* means equally both 'do' and 'make' (like French *faire*); compare Gen. 2.2 in RV and RSV, . and Gen. 1.31 and 2.2 (where the same verb is used) in the NIV, RSV, REB. I have adopted the meaning 'do' here.
- 4 Gen.1.31 The words (italicised in some versions) 'it was' or 'it is' are supplied by the translator.
- 5 Gen.9.2,3
- 6 Isaiah 11.9
- 7 Mark 10.18

8 Exod.3.8

9 e.g. Matt.13.34; 25.41

10 1 Pet.3.22

11 Eph.6.12

12 The witness of the Bible; the sheer *concreteness* of evil; occult phenomena and present_day demon_possession; the experience of dread; primitive intuition. See the sensible remarks of the eminent scholar C. E. B. Cranfield, *CambridgeGreek Testament COMMENTARY ON MARK* p.75 (CUP, 1977)

13 Attempts have been made to replace the idea of a personal Devil with impersonal philosophical conceptions such as the Das Nichtige of Karl Barth (cf. John Hick, *EVIL AND THE GOD OF LOVE*, SCM Press, 1966).
The results are without practical power, spiritually or ethically.

It is best to take the Bible in its plain and consistent sense, however great the problem for theodicy.

14 As Gen.3 makes plain. See especially Luke 4.5_8. For the identity of the tempter see Mark 1.13; 2Cor.11.3; 2Thess.2.9,10; Rev.12.9.

15 1Cor.15.24_26, cf. Matt.25.31,41; Heb.2.14; 1John 3.8

16 1Cor.15.24

17 Heb.2.14

18 Rev.12.7_12 _ *by the blood of the Lamb* and *by the word of their testimony*, cf. also Luke 10.17,18; Rom.16.19,20

19 Eph.1.10; 3.9,10,11; Co1.1.20

20 Gen.12.3 (NIV)

21 Dan.9.24.

22 I shall limit my comments almost entirely to the living world, though the mandate undoubtedly covers also the non_living. It is, in fact, a mandate for all branches of science and technology.

- 23 "The expressions for the exercise of this dominion are remarkably strong: *rada*, 'tread', 'trample' (e.g. the wine press); similarly *kabas*, 'stamp' ". G. von Rad, GENESIS pp.59f.
- 24 Joshua 17.8; 18.1; ('land' is the same word as 'earth' in Gen.1.28, and 'subduing the land' means 'subduing the inhabitants').
- 25 Zech.9.15 (for literal, see RV); Mic.7.19
- 26 See Appendix IV(i) on the 'great sea monsters' of Gen.1.21
- 27 Even today some men and women have remarkable power to establish friendships between animals naturally enemies. Compare the comment about Jesus in Mark 1.13 and cf. Mark 11.2.
- 28 Matt.21.16 (quoting from the Septuagint); Heb.2.6_9
- 29 Had man faithfully fulfilled his mandate, the outcome, I suggest, would have been as described in Isa. 11.6_9. The critical factor in securing this is given in verse 9 _ the universal knowledge of God. So far from disseminating this knowledge, Adam lost it himself.
- 30 John Calvin, COMMENTARY ON GENESIS (Eng.trans.1847, Banner of Truth Trust) See comments on Gen.1.29,30 and 9.3; also the fine recent commentary by Henri Blocher *op.cit.*, p.209 note.
- 31 Gen.4.2
- 32 Gen.1.24. The Hebrew word translated 'cattle' here can mean simply 'beasts', but the verse is usually interpreted as suggested (cf.NIV). The reference in Ps.8.7 seems to put it beyond reasonable doubt that animals for domestication are meant.
- 33 Gen.4.4 (NIV, NEB, GNB); cf. the Peace Offering, Lev.3.1_5; 7.11_15.
- 34 Gen.4.3. 'In the course of time', lit. 'at the end of days', seems to imply this.
- 35 Man's first clothing seems to have been of animal skins, not fabricated wool (cf. Gen.3.21).
- 36 'Food' here is the general term *broma* (cf. Matt.14.15). It certainly commonly includes flesh (cf. Rom.14.2,15,20, where it is used three times, with 14.21 where 'flesh' and 'wine' are mentioned explicitly as included in the term; cf. similarly 1Cor.8.13).
- 37 The aorist tense here indicates an action complete in itself. Had Paul wished to refer to the *continuing* creation of animals, generation by generation (Ps.104.30) he would surely have used the present.
- 38 Heb.7.16; cf. Rom.6.9,10
- 39 Luke 24.42; John 21.9,10
- 40 Matt.19.4,5. The phrase quoted is from the Marriage Service (BCP).

- 41 'Futility' (RSV); 'frustration' (NIV, REB); 'inability to attain its purpose' (JB).
- 42 See such passages as Rom.10.6_8; 11.34,35; 1Cor.1.20; 2Cor.3.18; 4.6; Ga1.1.15 etc. Note further how unambiguously Paul refers to the Fall in Rom.5.12_21; there is no such plain reference here
- 43 This conclusion is not altered if some scholars refuse to regard the Fall as a matter of *history*; what is important is that Paul himself regarded it as such.
- 44 e.g. 1Cor.8.6; 11.12; Co1.1.16,17
- 45 cf. 1Cor.2.7; Eph.1.4,7; 2Tim.1.9,10 (NIV, NEB).; 1Pet.1.18,20; Rev.13.8. The significant phrases are 'before the foundation of the world', 'before times eternal', 'before the ages'.
- 46 Rom.11.32; cf. 1Cor.1.18_21
- 47 Contrast Isa. 42.4; John 17.4.
- 48 Rom.8.20,21
- 49 See C E B Cranfield, *op. cit.* on Rom.8.20.
- 50 A dog suffers when its master takes to drink _ that is an outcome of solidarity. But it doesn't undergo structural and physiological changes which alter its whole biology.
- 51 *Is Hell for Ever?* Churchman 110 (2) pp.107_120 1996
- 52 Luke 22.53b, cf. Co1.1.13. In both cases the key word is *exousia* which almost invariably in the N.T. stands for authority vested in a person; the Power was personal. See also Luke 4.6ff. Satan's fall is perhaps adumbrated in Isa. 14.12ff, Jude 6.
- 53 Such as predators and parasites
- 54 cf. Isa. 48.18,19
- 55 e.g. the various forms of Buddhism
- 56 1Cor.3.9; Acts 15.28
- 57 Rom.8.19_22; note the mention of 'pains of childbirth' in v.22. 'Hope' to the biblical writers means 'joyous expectation'.

The Garden of Eden, and the coming of Eve >>[back home](#)

The story of Eden is to be understood historically. It is not 'myth' in the popular sense. It is early human history abridged and explained, and takes us behind the scenes into the spiritual realm where human life finds its real significance.

Man is the fully self-conscious animal, placed under the moral obligation of obedience to his Maker. By himself the man is incomplete; he needs a companion. So he was given woman to share his life in the most fundamental of human bonds. Together they threw off the yoke of obedience. They thereby lost what they were created to enjoy _ fellowship with God their Maker. They were driven from His presence and death became an inevitability.

No incident in the Bible (except perhaps the story of Noah's Ark) excites ridicule, gentle or otherwise as the case may be, so readily as the account of Adam and Eve in the Garden. However, the laughter is loudest where the understanding is least; to_day, the story of Eden is held in the greatest respect by many scholars of repute, even when they do not hold conservative evangelical views 1. We shall devote two or three chapters to it, and conclude this one with a consideration of the Bible's particular approach to the problem of affirming Creation as an act of God initiating history.

Interpretation

We have met this problem before, and we shall meet it again. How do we interpret the story? Do we regard it as myth, like the story of Orpheus and Eurydice? Do we read it as the story of Everyman in his moral experience? To do either, to be sure, would not be to take a contemptuously dismissive view of it, for while 'myth' (in popular parlance) can be a synonym for falsehood or sheer invention, it can also stand (in more scholarly circles) for the expression of serious thought, and as such is worthy of considerable interest. However, the fault with the view that the story of Eden is myth is twofold. First, myth and revelation (with which we are contrasting it) have entirely different functions. The function of revelation is to teach men to live in accordance with the will of God and to His glory 2; that of creation myth has been to make things comprehensible and to maintain them as man would have them be 3. Second, while myth may powerfully express and illustrate a great truth it cannot *establish* it. It lacks authority, precisely that which is the foremost characteristic of revelation. On which side of this great divide _ revelation or myth _ the Genesis account stands is illustrated by a well-known incident. Jesus was being questioned about divorce. He replied by basing his teaching on the story of the Garden of Eden: *For this reason a man shall leave his father and mother and be joined to his wife . . . What therefore God has joined together let not man put asunder* (Mark 10.7,9). The accent on both function and authority is crystal-clear, pin-pointing the narrative (in the estimation of Jesus) as divine revelation. Clearly, to him it was not 'myth' (as commonly understood), however elevated or profound. It was God disclosing truth, His account of things, to man.

It is the same with Paul. He is grappling with the age-old problems of human sin, suffering and death; how could these terrible realities have achieved such a stranglehold over human lives? His answer is firmly in terms of the disobedience of Adam and Eve in the garden. That was where man's slavery began, logically and historically. They were no more 'mythical' figures to him than were Moses or Christ 4. It has often been remarked that whatever may be said of other religions, biblical religion is rooted in real history, real geography, real events, real men and real women 5. It is the most concrete and materialist of all faiths. That is why it makes the best sense, biblically, to read the story of Eden as

real history. That is what I shall do.

But granting that the Fall was historical, and a happening of fundamental significance in the early history of mankind, it does not follow that the secular anthropologist or historian will find himself confronted at this point with a striking and inexplicable discontinuity. Scripture gives us no inescapable grounds for supposing such a thing. Everywhere in the Bible the great ethical and spiritual crises of humanity are such that their inner nature is hidden from secular eyes, and stands revealed only to faith 6. Thus the Bible tells us that the Lord called Abraham to leave his country and go to another; and Abraham packed his bags and went (Gen.12.1,4). In this small piece of the recorded drama there are two 'acts': the final one, which could in principle have been video_recorded in full (Abraham packing his bags), and the opening one, which couldn't (his receiving God's call to obey). Such 'two_part' events as this occur in all the great dramas of biblical history: the commissioning of Moses, the call of Elijah, Israel's exile to Babylon, the conversion of Paul, and supremely the birth and passion of Jesus of Nazareth. Moreover these events, so momentous in the biblical story of man's redemption, pass into history unspectacularly at their climax: Jesus was born in simple circumstances, lived as a carpenter, and was crucified as a common malefactor, almost unnoticed by the Graeco_Roman world 7. In every case, there are certain aspects of the drama which could have been caught (if we may be allowed the 'thought experiment') on a video_recorder; but other aspects would as inevitably be impossible to capture (cf. Paul's confession in 2Cor.12.1_4).

It is important to realize that just where the separating line lies between these two 'acts' is not always easy to determine. Abraham had an experience of great horror and darkness, prophetic of the history of his race (Gen.15.7ff). He was partly awake and partly asleep, and within this visitation, God spoke and made a definite, factual covenant with him. If we may again indulge in a 'thought experiment', what would we see in a video recording of it all? It's very hard to imagine. Paul heard the voice from heaven clearly; his companions didn't (Acts 9.4ff; 22.7ff; 26.14ff). What would we observe now on a video of that? Jesus heard a voice, the crowd just said it thundered, or made guesses about an angel (John 12.27ff). I mention these instances because they illustrate the way the Bible routinely reports things; it views them whole, in their totality, the public and the private together; and the two are often quite hard to disentangle in the sense we are discussing. I think this has an important bearing on the way we should read the story of the Fall, or of the other dramas mentioned, such as the call of Abraham. It implies that key elements of each will almost certainly be out of reach to the secular historian, for they have left no trace on what corresponds to the video tape. Knowledge about them is available only by divine revelation 8. In saying this there is one qualification which must be made, illustrated especially by the accounts of the Resurrection of Jesus (Matt.12.39f; Acts 17.31). The New Testament takes the view that there is sufficient evidence publicly available to convince any open_minded enquirer about this 9. The same is no doubt true of the main subject of this essay (Rom.1.18_20). We shall return to this subject briefly at the end of this chapter.

Miracle

The biblical writers record many miraculous happenings, but they cannot be said to be avid for miracle; they don't invoke them at every opportunity. Indeed, the careful reader must often get the impression that the opposite is the case 10. The reason is a fundamental one. The teaching of the Bible is that God is as *truly present in the ordinary as He is in the extraordinary*; the difference is that he isn't so obviously or significantly present. Feeding the birds is as certainly a divine activity as feeding the five thousand 11.

Jesus rebuked those who *except they see signs and wonders will not believe*.¹², and regarded it as a sign of maturer faith to believe his plain_word¹³. The conclusion therefore to which the Bible is leading us is that we should recognize the hand of God in everything, and not just in the unusual or extraordinary¹⁴. Once we have grasped this great biblical principle and it has become part of our thinking we shall not be over_eager to attribute specifically miraculous status to things which the Bible tells us God did, or does, even when they are one_off events¹⁵.

The creation narrative changes at Genesis 2.4 from what might be called the general to the particular. It was inevitable that it should do so in view of the purpose of Scripture, to direct conduct rather than to satisfy curiosity. This requires that man and his life should occupy the centre of the stage, and from now on they do. We prepare to enter the domain of human history. The change_over is effected analogously to that in a well_presented natural history exhibit. The background of the latter is a pictorial representation of sky, hills and desert scrub; as we move forward this changes into real elements of plant, rock and soil surrounding the animal, a desert antelope say, on display. The transition between the pictured background (which gives a helpful impression, but isn't meant to be unimaginatively scrutinized) and the real foreground (which may be understood literally, as it were) isn't by any means a sudden one. It is part of the skill of the arranger not to hide it, but to make it unobtrusive. This helps the didactic purpose of the exhibit. So the change is made, I believe, from the 'pictorial' meta_historical days 16 of Gen. 1 to the common human days of chapter 4 onwards. A similar thing happens in the first chapter of John's Gospel, where we begin in eternity and end in common time, with something of both in between.

God formed man of the dust of the ground, a pre_scientific insight which we now know to be physically true, for man's body (here the subject) contains only the chemical elements found in inorganic nature. 'Forming' signifies a material process in space_time; it is significant that 'create' is not the word used¹⁷. To 'form' implies no particular mode of manipulation of the dust, for the word¹⁸ is used of processes as diverse as growth in the womb and fabrication by woodworking. Where the forming took place is not said, but the natural sense of the passage would suggest that it was not in the Garden. Man was placed there, after he was formed¹⁹. Eden is evidently to be understood from its association with well_known topographical features, to be a real geographical region, though the data given do not make it possible to decide an exact location. Within this region *the Lord God planted a garden*, an area designed to be both beautiful and productive. Here grew trees for man's higher satisfaction, his nourishment, his health (see the reference to the tree of life in Revelation 22.2), and importantly, his moral and spiritual discipline (the forbidden tree)²⁰. Nothing here is scientifically absurd, philosophically inept or humanistically trivial; rather, scholarly commentators agree that everything is profound, theologically and psychologically. With the rest of the description of man's life in the Garden it constitutes a commentary on that universally_respected verdict of Deut.8.3 and Matt.4.4, that *Man shall not live by bread alone, but by every word that proceeds from the mouth of God*. Of course, the biblical writer does not expect us to understand the statement that 'the Lord God planted a garden' as

implying a physical activity on the part of the Deity observable as such²¹, nor is it at all likely that he expected his readers to interpret the language about the 'cherubim' and the 'flaming sword' as plain statements of what could be video_recorded. The 'forbidden tree' is almost certainly symbolic of a prohibition about which for reasons of brevity and timelessness the writer chose not to be more particular²²; this important matter is discussed more fully in Appendix V. These are not difficult things to appreciate; they

employ literary devices common and indeed inevitable in all great literature dealing with profound matters (compare for instance Ps.75.8, Jer.25.15f and John 18.11b). Of course the anthropologist, the student of civilization, and the secular historian all have their own, quite distinctive ways of speaking of these things, and none has a right to quarrel with another on this account unless the other claims exclusive validity for his own viewpoint (as Richard Dawkins and others appear to do for theirs). The Bible's specific function is different from all others; it is to take us behind the seen into the realm of the unseen 23, and it does this with consummate skill and artistry¹. It discloses that however tightly observable events link up with one another in an apparently unbroken nexus of cause and effect, the whole drama of existence has an Author who is writing it even as it unfolds. As Jesus taught us, God daily *makes His sun rise, sends His rain, and clothes the grass of the field* 24. Nothing shows up more plainly the intellectual poverty of some destructive criticism than to casually dismiss such language as this (common to Genesis and to the New Testament) as simply 'the Hebrew way of looking at things'. As we noted earlier, the Bible teaches that natural events are as much God's doing as those we choose to call supernatural. Accordingly, the narrative we are considering does not necessarily imply that the events it describes are what many would call 'miraculous'. To insist that it does is to deny the majestic sweep of the biblical emphasis on God's all-embracing sovereignty. For "He holds the whole wide world in His hands"; the roll of dice as well as the fall of the sparrow are subject to His will (Ps.104.27-29, etc.)²⁵. *Even the hairs of your head are all numbered* Jesus bid us remember 26; the most trivial circumstances of His people's lives are watched-over and ordered by God's all-embracing providence. This may well be a biblical doctrine the reader feels he cannot accept. No matter; its importance at the moment lies in the light it sheds on the assertion that was made earlier; that the Bible teaches that common events are just as much God's doing as those we call miraculous, the only difference being that they are less obviously so. Because of this a specific biblical statement attributing a happening to God cannot, *ipso facto*, be taken as asserting its miraculous nature. Unless the Bible is more explicit, the happening may well fit into the category the Victorian scientists called 'uniformitarian' 27. Recognition of this is highly important if we are to avoid arguing at cross-purposes.

The account we are given of man's origin in the second chapter of Genesis indicates that human life as we know it began in connection with agriculture; the man was set in a garden to *till it and keep it* 28. This is an emphasis with a distinctly modern ring. However, in fulfilment of his mandate to *replenish the earth and subdue it*, his activity was not, it would appear, confined to the Garden, for the riches of the surrounding region are noted pointedly in Gen.2.11,12. This suggests a concern with technology and art (as furnished from outside) as well. The bringing of the animals to Adam for naming was also highly significant. It was his initiation into dominion over them by way of knowledge and reflection. For thought, in the sense of acquiring real understanding, is helpless without words; it has no tools with which to discuss things with fellow-men. So it has first to develop a language; and the first component of language is the noun or name. It is a very superficial and mistaken view to think that this noble and dignified chapter is merely purveying a pretty story. The opening words of John's Gospel (*In the beginning was the Word*) are a pregnant statement about Jesus Christ as God and Creator. The metaphor they employ (*logos*, the Word) derives its value from something near to our familiar experience: that words constitute the basis of specifically shared human knowledge. Adam was no more exercising himself in pleasantries when he named the animals than is today's electron microscopist when he names the organelles he finds in his micrographs, or today's nuclear physicist the elementary particles in his bubble chamber. To those men of science who know the Bible it is the same God who brought the animals to Adam who still, in a manner fundamentally no different, brings these less commonplace, more esoteric objects to the attention of themselves and their scientific

colleagues. This is one implication of what the Scriptures are saying at this point: God is the Teacher who instructs men and women about matters on the scientific and everyday level as well as about things on the moral and spiritual 29.

It is in the Garden of Eden that Adam appears as the fully self_conscious animal. Whether or not the other animals have rudimentary self_consciousness is a moot point 30, but self_consciousness is of the very essence of human nature. It is noteworthy that in Gen. 1 when God had created the first animals He blessed them saying, "Be fruitful and multiply"; but when he had created man and woman God blessed them and said *to them*, "Be fruitful." 31 The personal address, implying the ability to comprehend, is surely significant. But the matter goes much further in Gen. 2, where God lays a moral obligation on the man of which the animals know nothing: '*You may freely eat of every tree . . . but of the tree of the knowledge of good and evil you shall not eat*' 32. The idea of moral obligation, of duty, presupposes that man knows himself as himself, which the lower animals do not. In no other sphere, surely, does self_consciousness play such an important part as in this.

Before we pass on to consider the creation of woman there is another very significant element of biblical teaching to note. Nowhere else in the Bible is there such a concise statement of the constitution of human nature as in Gen.2.7. The description of man's creation is continuous, with two movements: *the Lord God formed man of the dust of the ground, and breathed into his nostrils the breath (nesama) of life; and man became a living soul* RV, *being* NIV(*nepes*) . Man, in other words, is not a soul imprisoned in a body, but a complex unity. He is an 'animated' or 'inspired' body 33. This view is remarkable by comparison with other ancient teaching, which denigrated the body. Again, it has a modern ring 34.

In the Garden man also became conscious of an incompleteness in himself. As he got to know the animals it became apparent that there was no 'partner' (REB), no helper 'opposite to' him among them, no colleague as we might say today. In these terms the Bible emphasizes first, that man has a demanding work to do ('helper' highlights this); and second, that woman has a complementary part to play in it. Replenishing the earth, subduing it, and exercising a dominion under God over the animal creation are no doubt all part of this task, which is given as a joint enterprise (Gen.1.28). It should hardly be necessary to add that with attention in this passage focused on the task the designation 'helper' for woman no more implies inferiority than it implies divinity (compare e.g. Ps.146.5, where in a common usage, the word is the same). Delivered from the curse, Scripture sees husband and wife as co_workers (*sunergoi*, Rom.16.3) and co_heirs (*sunkleronomoi*, 1 Pet.3.7).

The description of the creation of woman is sometimes taken quite literally. To those who regard the whole story as a myth this presents no difficulty. Those who regard it as history, as I do, face a problem. Many interpret it as a 'miracle' (not as creation *ex nihilo*, but of an actual rib or side of Adam being 'built into' 35 his Eve), the deep sleep being sent to Adam so that he should feel no pain. This apparently was Calvin's view. It leaves one with the difficulty that one miracle suggests another: why couldn't the operation have been painless without the deep sleep? Wouldn't Adam have learned more, and been more deeply impressed, if he had observed it all, as some commentators suggest may have been the case? (Cassuto 36)

I believe myself that there is a better understanding of the narrative. From what has been said earlier about miracle it would appear that it is sounder exegesis not to invoke this category (in its common meaning) unless the biblical data positively indicate it. Flying to

it too readily undermines its dignity; it cheapens it. What alternative is there available then to explain the appearing of woman on the scene consistent with the characteristic didactic style of the Bible?

A legitimate one, I believe, is that God used the medium of a vivid dream to convey divine instruction on a vastly important matter, perennially misunderstood: the relationship of man and woman as He wills it. Genesis itself has frequent instances of such dreams (and there are several in the New Testament too). It was to impress on the man the true status of the companion he was to be given as wife. This, not anaesthesia, was the reason for the deep, God-sent sleep. Dreams can be very graphic and expressive, and their memory very persistent and powerful. They can in fact, have a life-long influence as many could probably testify. Dreams are often associated with deeply-felt longings and take the form of idealized fulfilments of them³⁷. Things can happen in dreams which are vivid enough but which cannot be adequately described in words. However, the dreamer awakes with his mind very deeply affected, and directed. Two examples of this from Genesis itself may throw further light on the coming of Eve. The first is the great revelation given to Abraham about the future of his descendants (see Gen. 15, especially v.12). The second is the escape of Jacob from the crafty Laban (Gen. 30.37-43 and 31.6-13), where (if I read the story aright) Jacob's own artful strategy of the peeled rods (the fiction of 'xenogenesis') is by-passed by God's providential ordering of the flock's breeding behaviour, and His indicating His purpose to Jacob in a dream.

Though it is hardly relevant to my main thesis I am tempted to comment on the Bible's teaching about one of the most important but misinterpreted elements of human life, the right relationship between man and woman, if there is such a thing _ or is this relationship changeable, subject to human re-design in each generation? The Bible's teaching was well, if quaintly, re-stated by the old puritan Matthew Henry in 1710: "Woman was made out of a rib of the side of Adam; not made out of his head to top him, but out of his side to be equal with him, under his arm to be protected, and near his heart to be beloved." Further, he says, there was clearly a progression in creation. "If man is the head, she is the crown. . . The man was dust refined, but the woman was dust double-refined, one remove further from the earth"³⁸. This sort of account, however unfashionable now, expresses the Bible's divinely-ordained pattern for the sexes, one which I believe a great many thinking men and women would still agree could not be bettered. Adam was established in the headship, but with such a balance and delicacy that there was neither grounds for feminism, nor excuse for male chauvinism. This biblical teaching is surely one to which true men and women, unsubjected by any transient spirit of the age, can still readily subscribe.

Conclusion

The main purpose of Genesis 2 is to answer certain perennial questions each generation will inevitably repeat: Who am I? How did I get here? What rules should I live by? and, What happens after death? These are questions which are basic to men and women of all civilizations and cultures, primitive and advanced alike. There is logic therefore in the Bible setting out for all future ages the answers in the sort of timeless user-friendly style Genesis employs. Some of the issues this raises will have to wait for further consideration; but I would like to summarize here the way I myself understand certain statements which touch the present interest. First, man was 'formed' (the word is not 'created') from common earthy materials (from this comes the name 'Adam'). There is no reason to doubt that the 'forming' was a process occupying time (i.e. it was not instantaneous), and was similar in this respect to growth of the embryo in the womb (see Jer.1.5; Ps.139.13-16). The animals had been formed similarly (Gen.2.19). But man received in addition a spiritual 'inbreathing' (unrecordable no doubt by our imaginary

video) by which he became uniquely a living being with a moral and spiritual nature. From the place where he had been formed (which might possibly have been in Africa) he was then moved eastward (Gen.2.8; cf. Abram in Gen.12.1) to an area in the region of modern Iraq, well suited to agriculture. He then began human life as an agriculturalist. Here he was given a woman as wife; and if we may indulge speculation in a way suggested by the later story of Isaac and Rebekah, she may quite well have been a member of the very same stock as himself, and have undergone the same God_given experience. But the Bible gives us no superfluous data on this; it is here conjectured as simply running true to form. But the dream which informed him of his wife conveyed to him one of the 'words' by which he was to live 39. So the record in Gen.2 ends, and we shall have to pick it up again in later scriptures.

Postscript for Scientists

Introducing the idea of video_recording is a way of trying to bring alive an important consideration. The claim of the physical sciences to universal recognition rests on the fact that their ultimate foundations rest on evidence which is *accessible, in principle, at will, to man as man*; that is, to everyone who has at least the two principal physical senses of sight and hearing. But this characteristic applies also to what can be caught on video 40. What this means in the present context is that only such things as a video_recorder can pick up have any place in physical science. This of necessity rules out any inbuilt purpose, however all_embracingly the latter may be involved 41. Whenever information is of an inwardly personal nature, it has to be classified logically as revelation; the necessary characteristic of being accessible at will required for scientific evidence is not met (see chapter II, note 31).

NOTES

1 Thus von Rad, *op.cit.*,p.25 "As regards the creative genius of the *Yahwist's* narrative there is only admiration. Someone has justly called the artistic mastery in this narrative one of the greatest accomplishments of all times in the history of thought". [The *Yahwist* is the name given by critical scholars to the presumed author of the story of Eden].

2 Deut.29.29; Matt.4.4; 9.13; Rom.15.1_4; 1Cor.4.6; 2Tim.3.14_17

3 We are thinking here of the myths of Creation and Origin: "the primary function of the myth is to maintain the stability of the present state; it is this that is common to the whole vast circle of stories about the creation or origin of the world and of human beings". C.Westermann, GENESIS 1_11, (SPCK, 1984); "the recital . . . has the power to establish and ensure the continuity of human life". R.Pettazonni, quoted by Westermann, *loc.cit.*

4 Rom.5.14,15

5 See e.g. Luke 3.1f; 1Cor.15.1_8; Gal.4.4; Acts 7.17; Luke 24.39; Josh.4.21ff; etc.

6 Matt.13.11_15; 16.17; John 1.10; Acts 13.27

7 Gen.12.1ff; Exod.3.1ff; 1Cor.2.7ff

8 Luke 10.21_24

9 See Matt.12.38ff; Acts 2.24; 17.29ff; 1Cor.15

- 10 Mark 7.24ff,32ff; 8.22ff; Luke 5.14; 8.51,56; contra Rev.13.13_15
- 11 Matt.6.26; John 6.14 with 14.10; Psalm 104
- 12 John 4.48
- 13 John 10.37,38; 14.11; contrast Matt.16.4; John 6.30.
- 14 Job 2.10; Ps.147.7_9,15_18; Prov.16.33; Rom.8.28
- 15 As for instance the death of Herod (Acts 12.23)
- 16 'meta' is used here in the sort of sense it has in 'metaphysical'
- 17 cf. Job 10.8; Pss.33.6; 119.73; 148.5; Jer.18.1_6; 2Pet.3.4f for the use of these words. God's *hands* 'form' or 'fashion', His *word* 'creates'. (Pss.33.6; 119.73 use also the unspecific term 'make'.
- 18 Heb. *Yasar*. The word is used in Jer.1.5; Isa.44.10.
- 19 Gen.2.8,15. Robert Ardrey (see his opening, AFRICAN GENESIS) has been hasty here! Biblical Adam may well have originated in Africa.
- 20 Gen.2.9. See further, Chap. IX
- 21 cf. Ezek.36.36f
- 22 Brevity is the soul of more than wit; cf. Prov.9.16b,17; 30.20 for parallels.
- 23 Gen.41.25f; Dan.2.28f; 2Cor.4.16_18; Heb.11.27
- 24 Matt.5.45; 6.30
- 25 Prov.16.33; Matt.10.29 (RSV,NIV,NEB); Compare the Anglican collects (BCP) for the 8th Sunday after Trinity and the 2nd after Epiphany; see also Eph.1.11 and Rom.8.28.
- 26 Matt.10.30
- 27 See, for instance, S. J. Gould's essay on 'Uniformity and Catastrophe' in EVER SINCE DARWIN (Penguin, 1980)
- 28 cf. Prov.12.11 where the same word (*abad*, till) is used. Of course, it implies technology.
- 29 Isa.28.23_29
- 30 See W. H. Thorpe, ANIMAL NATURE AND HUMAN NATURE (Methuen, 1974)
- 31 Gen.1.22,28

32 Gen.2.16,17

33 *Nepes* is variously rendered 'creature', 'soul', 'being', 'person'; *nesama* ('breath') seems to be the endowment of mankind uniquely in the Bible. With one possible exception (Gen.7.22) it is never used of the animals. Joshua 11.14 seems to confirm the distinction.

34 The significance given here to the body makes it theologically quite unacceptable to deny (as it is fashionable today) that the body of Jesus had a share in the glory of the Resurrection. (cf. Rev.5.6)

35 Heb., literal

36 Other reasons have been suggested for the deep sleep: aesthetic _ it sustains the beauty of the story (Cassuto, *op. cit.*); and theological _ it would have been inappropriate for men to watch the Creator at work (von Rad, *op. cit.*).

37 Isa.29.8

38 Matthew Henry, A COMMENTARY ON THE HOLY BIBLE (1710)

39 Deut.8.3

40 The video_recorder has certain of the senses unrepresented _ taste, smell and so on _ but in principle their data could be recognised by special instrumentation and the information passed to the video.

41 I well remember as an undergraduate at Imperial College, London hearing a fellow student studying an amoeba under the microscope for the first time being rebuked by the supervisor for saying it was "trying to get out of the field of view"!

The Temptation, the Fall and the Curse

[>>back home](#)

Man as a creature given amazing powers was of wise necessity placed under the obligation of filial obedience to his Maker. His temptation and fall are to be regarded as events at the beginning of human history. They are described, (as the New Testament describes, in parallel fashion, the temptations of Jesus), as vivid 'extended metaphors' 1; this treatment ensures an emphatic and timeless impact, i.e. on all generations of reader. In the New Testament the serpent is unmasked as the great Adversary, Satan. The punishment for disobedience was inevitably death, the ruination of relationships _ man with God, man with his fellows, and man with nature.

Nowhere is the Bible's account of man so far more realistic than Darwinism's as in the matter of moral experience. Darwinism after all contributes virtually nothing to the moral outlook of ordinary men and women, however well_read they are in its intricacies. But moral principles and their sanctions, whether welcome or not, are rarely absent from their minds and regarded (deep down) as vastly important. At least in the West almost everyone would admit that these principles owe an enormous amount to the Bible. But what, in any case, is the nature of moral obligation, and where does it come from? Why are its demands inescapable, and why so comfortless and tormenting? Why does it turn all of us at times into hypocrites _ hard on others and soft on ourselves? To the writer, biological theory has no conceivable answer to these questions; the Bible's is both rational and satisfying, humbling yet full of hope. It discloses why man's life is too often "solitary, poor, nasty, brutish and short" (as the materialist philosopher Hobbes wrote in *Leviathan*, 1651) for a very understandable reason. He is a rebel, "alienated from the life of God" (Paul in Eph.4.18), cut off from his true source, and out of harmony with himself and his fellows. That is the Bible's answer, and it is with this that secular Darwinism has to reckon.

Man is a created being with a conscious power of responsible choice; this is implied by his being given a command to obey (compare Joshua 24.15). His position can be illustrated by an analogy from C.S. Lewis. Suppose a wise, generous and beneficent King gave each of his hitherto inexperienced citizens a fine automobile and told them to enjoy themselves on the roads he had built in his domain. The result would be catastrophic _ unless at the same time he gave them a highway code, a set of rules drawn up by himself and binding on them all. Merely to tell them to be 'loving and kind' wouldn't be enough. The code, if carefully constructed, would have to be strictly enforced, too. This illustrates the rationale behind the biblical statement that the Creator placed man, (to whom He had clearly given vast powers and privileges, Gen. 1.26ff), under the restraint of implicit obedience to Himself. But there was existent a watching adversary, of whose origin the Bible discloses little, but whose destruction the Creator had in mind. Man was tempted by the adversary _ and fell.

At this point I can hardly do better than quote what the great German commentator Gerhard von Rad wrote on Gen.2.16;17:

"For the ancients the good was not just an idea: the good was what had a good effect; as a result, in this context 'good and evil' should be understood more as what is 'beneficial' and

'salutary' on the one hand and 'detrimental', 'damaging' on the other. So the serpent holds out less the prospect of an extension of the capacity for knowledge than the independence that enables a man to decide for himself what will help him or hinder him. This is something completely new in that as a result man leaves the protection of divine providence. God had provided what was good for man (2.18!), and had given him complete security. But now man will go beyond this, to decide for himself. What the serpent's insinuation means is the possibility of an extension of human existence beyond the limits set for it by God at creation That the narrative sees man's fall, his actual separation from God, occurring again and again in *this* area, (and not for example, as a plunge into moral evil, into the subhuman!), i.e. in what we call Titanism, man's *hubris* — this is truly one of its most significant affirmations". (GENESIS, Eng.tr. 1961, pp.89f)

The wording of the command thus implied that man was not to assume he had the power to decide for himself what was right or wrong; the Creator retained that prerogative Himself. Logically, it had to be so. Would C. S. Lewis's beneficent King have been wise to leave it to his citizens to make up their own minds on which side of the road to drive, and whether 'green' or 'red' meant Stop? Eve's sin was in effect to *take* this autonomy. "Why not be like God, deciding for yourself what is good and evil? Why wait to be told?" suggested the evil one. "Yes, why not?" thought Eve; and she went ahead. There is profound diagnosis here. This (quietly defiant?) self_sufficiency was to be the seed of 'no absolutes', 'every man (and woman) their own boss'; and, as Adam was warned, mankind's tragic history of greed, lust, enslavement, torture, war and every sort of human misery has inevitably followed. Its effects are never ending. They are more than ever apparent today, often very public and unashamed. Dishonesty, gross sexual display and indulgence, violence, lawlessness, evil broadcasting — all 'no problem' to our modern culture. All this should, on any reasonable assessment, bring to the Genesis narrative a profound respect. Certainly Jesus of Nazareth gave it such, and his own life was the direct negation of the scene in the Garden (Matt.4.4; John 6.38; 8.28f). His own recorded temptation provides a standard to which reference will be made in a moment; and his call specifically to faithful *discipleship* assumes the deepest significance 2.

It has become customary in many quarters to scoff at the biblical narrative of the Fall, but this is foolish. The profound theological and psychological insights of the story have often been recognized. How subtle is the approach of temptation! How simple_minded and unreflecting Eve's declension into self_pleasing! How fundamental and far reaching the results for the race! Loss of inner harmony is immediate. Then come fear, alienation from their Benefactor, disloyalty to a bosom companion, and finally murderous hate towards a brother 3. All this is so perennially up_to_date and true to experience that the story of the Fall is with justice regarded as the story of Everyman. But this by no means exhausts its trueness. As the Cross was a unique *historical* event, and yet is also the story of Every_disciple 4, so (it may be convincingly argued) was the Fall a unique historical event, and yet is the story of Everyman. The New Testament, in fact, makes much of the parallel between the two, as well it might; for the correspondence between them (sometimes of similarity and sometimes of contrast) is too far_reaching to be accidental. The same is true of the temptation of Jesus in the wilderness 5. I shall return to this again in a moment.

Of course, the view taken here (that we are meant to regard the Fall as a matter of history) does raise a number of immediate questions. Was the serpent a 'real' snake? What was the actual nature of the sinful act? What would we expect to see in an imaginary video_recording of the event? Similar questions however can be asked about the temptations of Jesus in the wilderness (Matt.4.1ff), and on subsequent occasions (Luke 4.13). So far as these are concerned any attempt to interpret them in terms of what might

be 'videod' is inept: there *is* no 'exceeding high mountain' from which 'all the kingdoms of the world' can be seen⁶, nor was Satan a fleshy adversary when Peter made his thoughtless remark (Mark 8.33), nor was Jesus given a visible cup to drink before his passion (John 18.11). The problem for the secularist in all this is that he doesn't believe in an Unseen World⁷, and until he does, such things will always be sticking points. But the issue of an Unseen World is a main concern of this whole book, not just a trivial extra. We are back to square one, and there we must leave it for the moment. We shall see later that this issue lies outside the sphere open to *scientific* investigation.

It is in this way, i.e. as 'extended metaphor' 1, that I read the Genesis account. The Bible later records, it is true, the *visible* appearance of actual heavenly visitors (though never of demonic ones) on a number of occasions, but these are clearly different. There is a concreteness about them which prevents them being taken merely as 'extended metaphors' 8. Another quite different suggestion taken by other commentators⁹ is that what we hear is just a soliloquy, two sides of Eve's nature engaged in dialogue, the serpent merely objectifying the dark one. This too is unsatisfactory; it clearly doesn't do justice to Genesis or to the Bible as a whole. It reduces everything to psychology, a conclusion from which the temptation of Jesus himself could hardly be excluded¹⁰.

Positively, several important advantages can be suggested for presenting the message of the Fall in the way the biblical writer has chosen to do. Such 'extended metaphor' has a power and a vividness which brings the whole thing to life. It engages and challenges thought, and rouses even idle curiosity: what was the actual nature of the forbidden act¹¹, and what were its immediate visible consequences? More abidingly, an account in such terms does not become *out_of_date* as historical culture and conventions change. These at least are reasonable observations, and with them we shall pass on to the next matter that concerns our discussion.

We approach now the question of the Curse. The fact that human life is lived under a dark shadow hardly needs arguing¹². At the end the grave takes all; but even before that there is failure, lack of fulfilment, enmity, tragedy, pain and bereavement. So far is this so for the greater part of humanity that it constitutes a *never_exhausted* argument against a God of love. It is an argument not easy to counter, for there are times when even the most fortunate feel the force of Omar Khayyam's sentiments:

Ah Love! could Thou and I with Fate conspire

To grasp this sorry scheme of things entire,

would we not shatter it to bits _ and then

Remould it nearer to the heart's desire?

Why should human existence impress us like this? The answer secular Darwinists attempt to give (in terms of the 'selfish gene', say) is a mockery. It may explain why lions tear antelopes to pieces, but it never comes near the great question of *why the human spirit suffers such torments*. How could natural selection lead to such a state of affairs? Even if the *neo_Darwinists* could think up some quasi_Darwinian mechanism for humanly_infllicted suffering, man's inhumanity to man, it could never measure up to that which it was devised to explain: a feature so universal, so massive, so tragic and so essentially *ethical*. It is here that the Bible comes into its own. It is the result, it says, of man's rebellious act, of his demanding autonomy, and of the alienation from his Creator it inevitably brought. What did this alienation mean? In one word, it meant *death*.

In order to understand what the Bible means by 'death' certain things must be made clear. In the first place, it makes no suggestion that when man was first created his earthly existence was to be endless. With a finite earth and the command, '*Befruitful and multiply*', it is almost self_evident that this could not be so. How his earthly life would have terminated we do not know; the nearest the Bible comes to telling us is the comment it makes about Enoch, that *he was taken up so that he should not see death . . . God took him* 13. Further, there is reason to believe that the function of the Tree of Life *in the midst of the garden* was to ward off disease and painful old age 14, and this again speaks against an inherent physical immortality. In agreement with this is the great messianic prophecy of Isaiah 65. When God creates his *new heavens and new earth* (v.17) in which *nothing hurts or destroys* (v.25), human life will still have its allotted span (vv.20ff), and then presumably be taken to a higher sphere, as Enoch's was.

In the second place we must suppose (following the argument of chapter VII) that Adam and Eve would have observed death in the animal world. The sight of a dead animal would, in fact, have exemplified the fate in store for them if they disobeyed. How exactly would the spectacle have struck them? Our scientific culture has conditioned us to think of death as essentially a physical change. Accordingly we try to establish death by instrumental tests 15. But this misses the point. The biblical understanding of life connects it with knowing, existential knowing 16. It thus implies entering into relationship _ with God, with other persons and, to a lesser extent, with things. That is why the Bible links life with *light* (which displays relationship) and with *love* (which fulfils it) 17. To the Bible therefore life is not a property of the thing_in_isolation. It consists in cognitive and responsive relationships with things and especially with persons; and death is the ruination of those relationships. The most striking and poignant thing about a dead animal or person is not that it has changed_in_itself, but that it has changed_in_its_responsiveness to us and to the world. It no longer recognizes us, or exhibits any feeling towards us. The sun comes out, and it shows no pleasure at the warmth of its rays, and so on. So far as others are concerned, and the great world outside, it knows nothing and answers nothing. That is the fate with which Adam and Eve are threatened, and this is probably how they would have regarded it. Relationship is the key category, both here and in all of Gen.3, and beyond. This can hardly be over_emphasized 18.

"*In the day you eat of it you shall die.*" The opening phrase here is not necessarily a precise time_pointer; in the original Hebrew it is exactly the same as the corresponding phrase in Gen. 2.4, where it is indefinite in meaning. However, it is clearly unacceptable (if only because we have moved now into the realm of human history) to demand that it span the 900 or so remaining years of Adam's life (Gen. 5.5), as we must do if we insist that physical dissolution is the primary reference. There is no doubt that the punishment for sin included physical death, but death as we *now* know it; for the event we now know as death has a sting in it, due to sin: man is now a rebel 19. But (it is worth reiterating) we are certainly not free to conclude that before his disobedience man's earthly life was of an immortal quality and would have been endless.

Death as penalty highlights the significance of relationship; and the most important of all relationships, the one from which all others are nourished, is that of fellowship with the 'faithful Creator' (1Pet.4.19). It was this which was shattered the very moment when, (in terms of the 'extended metaphor'), the forbidden fruit touched man's lips. Spiritual necrosis set in instantly. He was '*cast forth as a branch and withered*' (John 15.6); and ever since, he has existed (except where God reaches down in grace and rescues him) in the darkness of spiritual death. The New Testament especially speaks of this with great

force and plainness of speech: "*Let the dead bury their own dead, but you go and proclaim the kingdom of God,*" said Jesus to a procrastinator. *The mind of the flesh* [our natural mind] is *death*., *but the mind of the Spirit is life and peace* wrote Paul 20. Other consequences followed inevitably and in their own time. Driven out of the favoured habitat of Eden, barred from access to the Tree of Life 21 whose healing virtues (Rev.22.2) had perhaps warded off accident, illness or senility, man's pilgrimage became "one long march into the night", as Bertrand Russell put it 22. Outwardly, human society became corrupt and estranged from nature, which from now on was something to be thoughtlessly plundered and exploited; inwardly, man's *psyche* became the arena where impulses of lust, greed and cruelty fight incessantly (and often successfully) with nobler instincts for the mastery. Finally, with no victory in sight, *his years come to an end with a sigh*23.

There is a sense of realism about all this. It rings true; human life is like this when we stand back and look at it. God is to most people the Great Uncertainty, more often than not regarded with very mixed feelings. People neither know Him, nor (if they are honest) are they sure that they want to. Alienated from the life of God, estranged and hostile in mind is how the New Testament describes man's present condition in relation to God 24, a condition resulting from that for which Christian theology has coined the phrase 'original sin', a nature we are *born* with. Doesn't universal human experience corroborate all this? Unexpected mention of God in conversation does not commonly fill most men and women with a sense of pleasure, openness and spontaneity. Alas, it is rather the reverse; man is in the far country 25.

It is in terms of a spiritually_changed relationship too that man and woman henceforth had to face life together. For Eve, to whom the experience of childbearing was to become more painful, the clue is to be found not in deleterious anatomical or physiological changes but in the entrance of anxiety and fear 26. Who does not know how easily these things can change what might otherwise be exhilarating challenges into terrifying ordeals? Then there entered into human consciousness a strange and discordant new emotion _ shame. Man and woman became 'ashamed of their own naturalness', as Carl von Weizsacker the distinguished astrophysicist, once put it 27. Even now this remains a burden. Any attempt to deny it means brazening things out in defiance of an inborn instinct, with loss of poise and dignity. Sexual relationships became soured after the Fall. Tyranny now adulterates tenderness, coarse sensuality sensitivity; love_hate is too often a frequent alliance in the encounter of man and woman. The Bible poignantly illustrates this in the moving story of the passion of Amnon for his beautiful and virtuous half_sister Tamar:28

Then Amnon hated her with very great hatred. And Amnon said to her, "Arise, be gone!" . . . Tamar put ashes on her head . . and went away crying bitterly

"Yet your desire shall be for your husband, and he shall rule over you" 29. Feminism may be a protest at this, but it often tends to be a hard, loveless and self_defeating one. The 'gay' life may seem to some to offer a way round it, but it brings its own bondage and disillusionment 30. The problem lies too deep for such superficial remedies, Genesis implies. Self_centredness is now too fundamental a characteristic of our fallen make_up.

To Adam too the curse brought a changed relationship to work, all too evident, we may remark, in our affluent industrial society. Gone, very often, is the pure joy of labour and service 31. What the Bible is saying is not that (in the particular sphere of agriculture which was Adam's) new and nasty species of plant appeared, or that old and pleasant ones grew spines. There was rather a change of outlook and relationship (again) 32.

Common and hitherto delightful tasks became suddenly burdensome, as they are always liable to when godliness and goodwill fall from their pre_eminence. Plants which man cannot turn to his own use he now often regards with displeasure; they are weeds. Correspondingly man has become the exploiter of the lower animals, not their friend and benefactor 33. The satisfying and gracious harmony between man and nature has become a discord; the ecological conflict has begun 34. It is the self_centred impulse, not the Judaeo_Christian tradition, which has laid the foundation for the crisis 35.

In all these respects relationship is the key category. As with Othello towards Desdemona an alien spirit has entered the consciousness of mankind, and pure happiness has fled. This is the condemnation.

Of course the judgement did not mean that all joy was to vanish from the partnership of husband and wife, all childbearing a nightmare, all pleasure in work or joy in nature to be a thing of the past,. God's judgement is always tempered with mercy, and designed, where possible, to remedy the fault; and the sentence here is certainly very far from savage. It is mitigated too by the immediate promise of a Deliverer 36. Yet who can deny that there is correspondence with present actuality in the description of what is to be mankind's lot? Romantic love still holds out to young men and women (at least sometimes) the prospect of sublime happiness _ rarely, if, we are honest, ever truly realized. Work, for all its reward, is over_burdened with anxiety, rivalry, boredom or distastefulness; and so on. But these things were not designed to be so. When God made man and woman "He *blessed* them and said . . . , *have dominion*". They were to 'reign in life' 37. Why then are things otherwise? Why are men so often against women, children against parents, class against class, race against race, superpower against superpower? The Bible answers realistically, "disobedience and the curse".

It is sometimes suggested that the only intelligent and acceptable interpretation of the Garden of Eden narrative today is to regard it as 'myth', like say the tale of Prometheus. This would allow it to be 'true' in some sense to experience, but not *historically* true. It would be the story of Everyman (as noted before), and the moral choices all men and women face in life. This cannot be regarded as a satisfying view, for several reasons. It fails to do justice to the New Testament understanding of the matter 38. It gravely weakens the authority of the biblical testimony, an authority to which Jesus himself appealed 39. It runs counter to the strong impression made on the ordinary reader, that the narrative is meant to be read *as history*, for it runs continuously into what is plainly so meant and betrays no suggestion that it is to be read otherwise. Most obviously, to regard it as 'myth' (in the sense noted) is to leave biblically unanswered the cardinal questions, when and how did this sad human condition originate in the first place? Was it always like this? Why does death get us in the end? Finally, this interpretation by liberal scholars as 'myth' is liable to be curiously lop_sided. On the one hand many scholars who favour it accept the biblical teaching that man's salvation is through a series of concrete historical events 40 ('salvation history'); on the other, the Bible's account of how humanity came to need salvation in the first place is denied historical concreteness. This is highly unsatisfactory.

At the opposite extreme is the 'creationist' view, already noted, that the curse was accompanied by great changes of a morphological, physiological and behavioural nature in the earth's fauna. That would make it the occasion when there first appeared savage predators: lions, wolves, crocodiles and sharks, along with all the parasites and disease organisms. Previously everything had been gentle, sweet and loving! For all this to be read into the words of Gen.3.17,18, which make no mention of anything remotely of the sort, seems quite unacceptable. One can hardly appeal to the great prophecy of Isaiah 11;

its language is so metaphorical at the outset (rod, stem, branch, root, belt) that it hardly demands a literal understanding at the end, especially when Genesis offers this no support. In the case of plants there may be a little more to be said, but I take the view that the curse meant rather a *breaking of the harmony* between man and nature, that unwanted plants became 'weeds', thorny ones a painful nuisance. 'Thorns', in fact, is a biblical metaphor often used for experiences unpleasant and painful, cf. Num.33.55; Josh.23.13; Jud.8.7; Hos.10.8).

The interpretations I have been criticising misunderstand the genius of the Bible; they cannot be convincingly defended by sound exegesis, or it may be added, by science or common sense. In them, man's failure, as *subject*, to be God's fellow_worker on the earth becomes overshadowed by changes to the fauna and flora, as *objects*; these take the limelight off him! What the text is meant to convey is that the great deterioration in man's life had its locus in his self_assertion, not in the epidermal outgrowths of plant stems; that at least is how I understand it. Together with views which would insist that later on the Flood was a worldwide phenomenon, they forget that the revelation was delivered to early Israel, not to a society for whom the antipodes are now almost next door!

NOTES

1 A 'metaphor' is a figure of speech in which "a thing is spoken of as being that which it only resembles, as when a ferocious man is called a tiger". It is an 'implied simile', and is used for vividness and power. Often the resemblance applies to one aspect only (a 'model' on the other hand ideally embraces all aspects, quantitatively). An 'extended metaphor' carries the resemblance to more than a single aspect: John 15.1_8 is an example.

2 The Bible lays great stress on man's *teachability*; among many refs. see Deut.4:14; Ps.19.12; 32.8f; Luke 10.38ff. For the whole content of Gen.3 see the excellent discussion in Henri Blocher, *op.cit.*

3 Gen.3.7_12; 4.8

4 Luke 9.23; John 12.26; Rom.6.3_11

5 Rom.5.12,15_21; 1Cor.15.21,22; Co1.3.1,3. Consider also the locality (a garden); the role of the Tempter (cf. Luke 22.53); the aloneness of the victim; the prospects: either great gain (Gen.3.6), or great suffering (Luke 22.44).

6 Luke 4.5

7 M B Foster, MYSTERY AND PHILOSOPHY, (SCM Press, 1957). Scientific evidence is in principle, accessible at will; contrast Job 1.6ff.

8 See for instance, Gen.16.7ff; Exod.3.1_6; Judges 13; and in the N.T., Luke 2.8_14; Acts 10. For such 'theophanies' see chapter II

9 e.g. Cassuto, *op.cit.*

10 The Bible nowhere asserts that all temptation comes through Satan (cf. James 1.14); but severe temptation sometimes does, as for Jesus.

11 The idea that it was the eating of an apple is due probably to a confusion between the Latin words *malus* (evil) and *malum* (apple). The description of Eve's act as 'extended

metaphor' parallels that of the corresponding trials of Jesus (Mark 10.38; Matt.26.39; John 18.11). See further, Appendix V(i)

12 The book of Ecclesiastes stresses this, so do the Bible's historical books (e.g. 2Kings 10; 25.6,7; Matt.2.16). Modern man is so used to it that he takes it for granted.

13 Gen.5.24; Heb.11.5

14 Gen. 2.9; 3.22; Ezek.47.9,12; Rev.22.2,14; cf. also Isa.65.20. As with the other tree, the language may be meant either to be taken literally (the tree was a sacramental symbol), or metaphorically. For the latter case see note 21.

15 e.g. by the onset of a flat electroencephalogram

16 John 17.3; death is correspondingly linked with ignorance, Eph.2.1 with 4.18. This connection is often noted in the Bible: see Pss.6.5; 88.10_12; Eccles.9.5,6,10; Ezek.37.13,14.

17 Deut.30.20; Job 3.20; Ps.36.9; John 1.4; 8._12; 1John 3.14

18 The Bible is fundamentally about relationships. The names Old_ and New '*Testament*' or '*Covenant*' (as *diatheke* means in the Septuagint) make this clear.

19 Paul's treatment of the subject in Rom.5.12ff and 1Cor.15.21,22 puts this beyond dispute for those for whom Scripture is 'God speaking'; cf. also 1Cor.15.56 and Heb.9.27; Luke 12.20.

20 Luke 9.60 NIV; Rom.8.6 RV. See also Luke 15.24,25; Eph.2.1,5; 1Tim.5.6; 1John 5.12.

21 Access to the Tree of Life may itself stand as a metaphor for the truth expressed in John 15.1_6; cf. also John 6.52_58; Co1.3.3,4; 1John 5.12; Henri Blocher seems to take this view (*op.cit.* pp122_125)

22 Bertrand Russell, *A Free Man's Worship* in MYSTICISM AND LOGIC, (Pelican Books, 1953). Bertrand Russell, a noted mathematical philosopher, was by confession a 'non_Christian'.

23 Ps.90.9,24

24 Eph.4.18; Co1.1.21

25 Luke 15.13; cf. also the verdict of Rom.1.18_32

26 Anxiety and fear are thus often stressed in the Bible as outstanding consequences of a fallen nature (Luke 12.5; contrast Ps.91.1_6; 1John 4.18).

27 THE HISTORY OF NATURE (Routledge and Kegan Paul). His reference is to Gen.3.7.

28 2Sam.13

29 Gen.3.16

30 One is reminded of the evils of sadism, masochism and paedophilia; cf. Rom.1.26_28.

31 Ruth 2.4; Ps.104.31; Neh.4.6; 12.27,43; John 4.32,34; 15.11; Eph.6.5_8

32 Accentuated no doubt by the change from the horticulturally_pleasant environment of Eden to the tougher and rougher region outside.

33 Hence the need for such injunctions as Deut.22.6; 25.4 cf. also 5.14

34 Isaiah 24.4_6; Lev.18.27,28

35 *Contra* Lynn White, *Science* 155, 1203, (1976). Compare this with Ps.145.9; Isa.40.11; Matt.6.26; Luke 15.4ff, etc.

36 Gen.3.15

37 Rom.5.17

38 See especially Rom.5.12_21; 1Cor.15.20_50; John 8.44.

39 Mark 10.6_9. It is difficult to see how if it is 'myth' (in the usual sense) it can have any real authority on the point at issue here.

40 Such as the Exodus from Egypt, the Babylonian Captivity and the Crucifixion under Pontius Pilate.

Adam and Mankind >>[back home](#)

Adam and Eve founded the human race, but its members need not all have sprung directly from them. Their connection is probably broader than that, as was Abraham's both to the nation of Israel, and more widely to the faithful in all ages. The Bible itself often speaks in such terms. For what this means in terms of human solidarity see Chap. XIV.

We must come now to the question of what the Bible tells us positively about the relationship between Adam, Eve and the human race. Does it mean us to understand that all mankind has descended from this single human pair? There would be no difficulty in this from a purely biological point of view; and it has traditionally been held that it does. It is probably the impression still conveyed to the casual reader. It is argued here however that it doesn't, and this chapter will try to justify this conclusion.

The naming of Eve

There are two biblical passages in particular that may be cited as directly relevant to the question at issue. The first is the statement in Gen. 3.20 (RV, for literalness): *And the man called his, wife's name Eve; because she was the mother of all living.* The second is Paul's assertion in his speech in the Areopagus, that God *made of one every nation of men for to dwell on all the face of the earth* (Acts 17.26 RV). Two other and longer passages which might be thought relevant are in Rom.5 and 1 Cor.15. They are more theological, and will be briefly referred to later.

We return to the passage in Gen.3. The significant clause is: *because she was the mother of all living.* This last phrase is probably a comment by the narrator (traditionally Moses), contributed long afterwards as the verb ('was') indicates. Thus it might not express Adam's own thinking, but the point is not critical. What is more significant is that the naming of the wife is attributed to the husband himself and not to God, as it is in significant cases elsewhere in the Bible¹. It is probably derived from the Heb. *hayya* which means 'life' or 'living' ; this will be discussed in a moment. Now the man had been warned beforehand that a certain forbidden act would mean death, and he might well have understood this as immediate death (*in the day thou eatest thereof*, Gen.2.17 RV). But when as a result of their disobedience judgement was pronounced it was the serpent (3.14) and then the ground (3.17) which were explicitly cursed. It was only after the hint of a male Deliverer (*his'heel*, 3.15) had been made that the pair's own punishment was pronounced. Then, the reference at that point to death (*all the days of thy life . . . till thou return to the ground*, 3.17, 19) was indirect, perhaps to their surprise; for this spoke rather of continued living at least for the present, even if under conditions of toil and sweat. Nor can we overlook the fact that the channel for the Deliverer was to be specifically the woman, for he is named as *her* seed (3.15) , not, as usual in such connections, the husband's. Paul doubtless had this in mind in Ga1.4.4 where his '*born of* (RV; *made of*, AV) *a woman*' employs an unusual Gk. word for 'born' in contrast to the usual one in Gal. 4.23. This suggests in the primitive church an early knowledge of the Virgin Birth since the Galatian epistle was written well before the Gospels appeared. With this recognition, what was it that moved Adam to name his wife Eve, 'mother of all life, all living'? For this seems a very relieved response to the divine word 'dust and a return to dust, because he had hearkened to her'² . His inward reaction may have been: "There's a rescue ahead somehow, and it will come through *her*; we are not to lose the Creator' s image after all". Many commentators discern *faith* here³. If the Deliverer

mysteriously foreshadowed in Gen.3.15 was the Messiah one day to come, it is not difficult to see here a prophetic reference to the Virgin Birth of the Old and New Testaments.

Reading the biblical account in this way is supported by similar idiomatic usages in other parts of Genesis. Thus Gen.4.20_22 runs: *Jabal was the father of such as dwell in tents . . . Jubal the father of all such as handle the harp and pipe . . . Tubal_Cain, the forger of every cutting instrument*, or as we might now put it, the *father* of tent_living, the *father* of music_making, and the *father* of metal_working. So Eve was the *mother* of all truly human living. Again, Adam's faith was responding as Abram's did when God renamed him Abraham. *for the father of a multitude of nations have I made thee* (Gen.17.5 RV), a promise indicating something other and far more than exclusive physical ancestry.

The significant suggestions being made here concern matters outside the ambit of science altogether. They relate to *meaning*, not *mechanism*, and science can make no pronouncements on their level.

Into the Areopagus

We turn now to Paul's words in the Areopagus; '*God made from one (ex henos) every nation of men (pan ethnos anthropon) for to dwell on all the face of the earth*' (Acts 17.26 RV). The 'from one' (RSV, RV) is unspecific. The NIV supplies 'man', the REB and JB 'stock'. The 'every nation' could equally well be translated 'the whole race'. Paul has been pressed into addressing the dilettante philosophers of Athens, and he seizes his opportunity. He knows he is not speaking to men immersed in the Jewish scriptures; rather, he is facing, as a Jew, the widely different culture of intellectual Athens. So he seeks to establish as firm a base as he can for his message, a message universal for all men: judgement, repentance and faith in a risen Saviour. He faces the materialistic Epicureans (from whom he can expect little sympathy), the pantheistic Stoics (from whom he can expect a little more), and the polytheistic crowd. He starts with two points at their own level: an Almighty Creator needing no human shelter, help or provision; and the equality of all men before Him. He then proceeds: this God is actively concerned about men. As the Sovereign Architect of their historical circumstances He has a purpose, that all men 'should feel after Him and find Him'. But clearly their seeking has gone astray; their many idols, and the altar to 'An Unknown God' indicate that. In all this Paul is saying in a preliminary way what is essential to his central message, and nothing more; at least, it is reasonable to take it that way. His quoting of two passages from Stoic poets (and none from the Old Testament) shows how anxious he is to establish what common ground he can. Now all this makes it unreasonable to insist that his reference to mankind's origin 'from one' was intended to be interpreted as 'from one human pair'. Paul was too skilled a preacher to have risked loss of the serious attention of a less_than_serious audience by introducing such a particular and probably obnoxious red herring. He knew he was already sailing very near to the rocks of prejudice, for the Athenians boasted that they had 'sprung from the soil'. So we may conclude that whatever was Paul's own view in detail of the origin of the human race, his language on this occasion was studiously general. What he asserted indubitably, was that all men share a common standing before God, and a solidarity with one another, nothing more.

The story of Cain

Thus far, we may conclude that though the common view, that the whole human race has descended biologically from a single human pair, may not be inconsistent with the biblical evidence, *it is by no means required by it*. There are other possibilities to which

we must keep our minds open. When Cain had murdered his brother Abel and faced the sentence of banishment and wandering, he was gripped with a terrible fear: '*Whoever finds me will slay me*', he said (Gen.4.14). Of whom was he thinking? He was the eldest son, and so far as Scripture tells us, the only other living members of the race were his parents. It seems very unlikely that he was projecting his thoughts forward to the time when a new brother, still not on the scene, had grown up and conceived the idea of avenging Abel, the murdered one he had never known. It seems reasonable to believe that there were other beings (we could provisionally call them 'humans'), who had never been in the Garden nor sinned *by breaking a known command as did Adam* (Rom.5.14 NIV), and into whose company Cain was now compelled to move (see note 6). If this suggestion is anywhere near the mark, these 'humans', like the animals, were subject to death; they had not yet, perhaps, received access to the 'tree of life'. Cain would naturally fear them, as all men fear the unfamiliar and unknown, especially when they have a guilty conscience.

Cain acquired a wife _ from where? The traditional (and legitimate) explanation is that he married an unnamed sister. But it is equally possible that he married a 'human' woman from outside Eden. He had a son, Enoch, possibly his first. After this son he named a city which he built. By 'city' we are not of course to understand a large and (by our standards) considerable centre of population: nevertheless, it hardly does justice to the word to use it of an assembly of a few primitive dwellings. The overall impression of the story of Cain is then, as Kidner remarks, 'of an already populous earth'. This is surprising, since the narrative does not suggest a high rate of growth in the family of Adam, but rather the reverse. As often as not sons are born only when fathers are 100 years old or more.

With the opening of chapter 6 the rate of increase seems to accelerate; so does the rise of evil and violence. Associated with this (and perhaps the cause of it) is a mysterious union of the 'sons of God' with the 'daughters of men'. What the Bible means us to understand by this has long been a matter of dispute. The problem concerns the identity of the two parties involved, the 'sons of God' and the 'daughters of men'. For a good discussion of the suggestions which have been made reference may be made to Blocher⁷. The significance of the passage in the present discussion turns, however, not so much on its detailed interpretation as on the impression it gives that there were, more on the earth at this time who might be classed as 'human' than simply the biological descendants of Adam. No doubt it is an impression only and could be construed otherwise; but it adds to the plausibility of a rather far_reaching suggestion the substance of which has often been made before. Briefly, it is that Adam was the head of the human race not in the sense that all men have physically descended from him, but in the sense that, in God's intent, he was to lead the way forward into human life as we know it.

Adam as a 'type' of Christ

In Rom. 5.14 Paul makes the important assertion that Adam was a 'type' (RSV; Gk. *typos*) of Jesus Christ, the Coming One. Other modern versions have rendered *typos* here by 'pattern', 'foreshadowing' or 'prefiguring'. We may take the last: Adam, in some way, prefigures Jesus Christ; some important characteristics of his life help us to appreciate the meaning of Jesus Christ. But what characteristics? One such is that at some crucial point in history, each 'stands in' for the whole human race, as its representative and head, and brings it to ruin (in the one case) or to glory in the other (1Cor.15.21,22). To qualify for this role there are only two things Scripture implies, which are constitutionally necessary. The first is, to be truly human⁸; the second is, to be divinely appointed⁹. Both of these things were true of Adam, and both are true of Jesus Christ. But to be a *physical* ancestor of subsequent generations was not something essential, for Jesus was never such.

In this particular connection, later biblical history casts further suggestive light on the precise relationship of Adam to the human race. At three points in its record there have been striking new beginnings, all centred on single individuals: Adam, Abraham, and Jesus Christ. This is surely a significant fact about the way in which the biblical writer has been inspired, I believe, to recount these early beginnings. Elements of a common pattern are exhibited by them all. Divinely named and called, each was moved to a chosen environment to train as a pioneer – Adam to Eden, Abraham to Canaan, Jesus to Galilee¹⁰. Now clearly in the case of Abraham and Jesus Christ, each became the founder of a community where physical descent was not the critical requirement, the *sine qua non*. In the case of Jesus Christ this is obvious, but even in that of Abraham the remark holds: consider, for instance, what happened to the three hundred and eighteen trained men, 'born in his house', who went with Abram (as he then was) to the rescue of Lot (Gen.14.14). These most likely entered the covenant with him when God renamed him 'Abraham', and probably many of them remained within it and swelled the ranks of what later became Israel (Gen.17.10_17). There were also strangers such as Caleb, Ruth and the Kenites who became part of Israel¹¹.

For all the foregoing reasons it would surely not be doing violence to the biblical record if it were read as implying that others not descended physically from him were included nevertheless in Adam's race (as the story of Cain for instance suggests). It is a spiritual tie rather than a genetic one which is the decisive one in Scripture, a principle applying to both Israel and to the Church. In this connection Paul's 'in Adam' strikes the same significant note as his 'in Christ' (1Cor.15.22).

The teaching of Romans 5 and 1Corinthians 15

There remain the passages mentioned in Rom.5 and 1Cor.15. These need only brief treatment. The passage in Romans is 5.12_21, of which verse 14 has already been discussed. Paul is here contrasting Adam with Christ, the disobedience of the one bringing sin, judgement and death, and the obedience of the other, grace, righteousness and life. This contrast Paul is stressing to the utmost of his power, viewing it from as many relevant angles as he can. But the idea that Adam and Eve were the sole progenitors of the human race is not introduced: it is apparently regarded as an irrelevance which would have weakened his impact. Paul's great themes here are rather the "much more!" and the "reigning in life!"; it is these he wants to highlight.

In 1Corinthians 15 Paul has been contrasting the old natural order (*Adam begat a son 'in his own image'*, Gen. 5.3) with the coming one, when after the general resurrection those who are Christ's (15.23) will bear *His* image (15.49). He has been wholly occupied with the wonderful truth of the final resurrection of believers, apparently being strongly challenged at Corinth; and he has been insisting on it at great length. Paul would hardly encumber his argument with anything contentious and not clearly vital, such as mankind's origin from a single pair. His antithetic adjectives (the *first* and *last* Adam, the *first* and *second* man) must be allowed to support each other, i.e. to be making the same point. Adam was the 'first' man in a way that makes sense of Christ being called either the 'last' or the 'second' man¹². For these reasons it is my conviction that this passage, like the one in Romans, cannot be made to have the meaning in dispute: that is, that all mankind have descended physically from the single pair, Adam and Eve. It neither affirms nor denies this; it is not centre_stage in the argument, nor even side_stage.

The consequences of sin

Although it is not directly relevant to the subject of this chapter, it is appropriate to add a note on the expulsion from Eden. The divine verdict (Gen.3.22) must be understood as pointedly ironic: "The man has now become like Us, *capable of deciding for himself* what is good or evil, beneficial or harmful. Lest he thinks with similar folly *that he has the power to take at will* the means to secure unending life, it must in mercy be made plain to him that he has not and never will". That is, it seems, the meaning of the divine act of expulsion from the Garden, the loss of free access to the Tree of Life. If it were asked what would be seen and heard in an imaginary video_recording of all this, the reply might well be, "Perhaps a theophany like that to Abraham in Gen.18; rather more probably an audible Voice (Gen.3.8f); and then most certainly, a disconsolate pair, perhaps already accompanied by others, walking away with anticipated finality from a region of great pleasantness into an uncultivated wilderness. There would probably be little else: Transcendence makes Its presence known to men only as and when It pleases. Judging by what evidence the Bible gives us (and which has been discussed earlier) the couple went away possibly with an existing company of fellow humans, from among whom Adam had been the first to be taken to Eden to be trained as forerunner. But he would come back to share with them not a new life as sons of God, but the knowledge of a Law to which they were now all subject _ and subject already as law_breakers. These suggestions I would not press, but they are in keeping with the sober testimony of Paul about his conversion (see Acts 26 especially vv.12 to 25), repeated on three occasions (Acts 9, 22, and 26); and enlarged on in his teaching in Rom.5.12_14.

Summary

We may summarize the conclusions of this chapter as follows. The *prima facie* impression given by the Bible is, probably, that the entire human race has descended from the single pair, Adam and Eve. Closer inspection, however, indicates that it makes no unequivocal statement to that effect. On the contrary, it readily allows us to believe that Adam's headship of the race was a representative one, and that universal physical descent from him is nowhere implied. Other fellow_'humans' may have been similarly 'inbreathed' after Adam and thus been incorporated into the fully human race (see6), the result of 'inbreathing' never being wholly withdrawn after the Fall (Gen.5.1_3: 6.3; Eccles.3.21). It is this link with the Holy Spirit which is the important one, not their nature in genetic (DNA) terms; to be 'in Adam' means something corresponding to (but distinct from), being 'in Christ'¹³

The call of Abraham and Sarah too forms an illuminating parallel to the account of Adam and Eve. To Israel God says later,

*'Look unto Abraham your father, and unto Sarah that bare. you; for when he was **but one** [N.B.] I called him, and I blessed him and made him many'* Isa.51.2 RV).

The settling of Abram in Canaan (perhaps Eden) followed his call. Sarai his wife was with him, and others too ('*all the souls that they had gotten in Haran*', Gen.12.4ff), but Abram fills the story. In Canaan comes the definitive covenant God makes with him: his name is changed to Abraham, and Sarai's to Sarah, and he is given the covenant sign of circumcision. Significantly, *all the souls who came from him and with him*, named and unnamed, are included in the covenant too and become the people of God (Gen.17.9,13,27; Exod.3.10f). The Bible often indicates a common pattern in God's ways of dealing with man, and it seems exegetically reasonable to take His way with Adam and

his collaterals as first setting this pattern to be later followed by Abraham and Sarah.

NOTES

- 1 Cf. Luke 1.13 (where 'John' means 'The Lord is gracious').
- 2 I am suggesting that the phrase 'mother of all life' or 'all living' is to be taken in the same way semantically as the formally similar phrases in note 4 here; i.e. as referring to a *quality* not to a *sum total of descendants*.
- 3 So E J Young, GENESIS 3. Banner of Truth Trust, 1966; D Kidner, *op. cit.*; G von Rad, *op. cit.*
- 4 'In Him was *life*' (John 1.4): 'the Son [has] *life* in Himself (5.26)
- 5 Rom.4.11,16
- 6 What I am suggesting is that animals had 'evolved' to the stage where they had many of the outward features of true humans. and some of their arts too; but they had not yet received the Spirit of God imparting 'the image of God'. This was at first 'inbreathed' (Gen.2.7) into a chosen leader, Adam, through whom the others were to receive the same ennoblement. Perhaps what Adam failed to do through his *hubris* (presumption), would have been *something* like what the Second Adam (1Cor.15.47) did through His self_abnegation (John 20.22; cf. also Acts 19.6).
- 7 Henri Blocher, *op. cit.* pp.200_203
- 8 For Adam see Gen.5.1_3. For Jesus Christ, see his most frequent self_designation, 'Son of Man'; see also Heb.2.7,9; 5.1,4,5,10 etc.
- 9 Adam the individual was given as personal name what was the designation also of our species (*ha adam*); he was thus appointed representative of the race. For Jesus see 1Tim.2.5; Heb.5.1,5f
- 10 Adam to Eden, Gen.2.8; Abraham to Canaan, Gen.12.1; Jesus to Galilee, Matt.2.13, 20_23
- 11 As the stories of Caleb (a Kenizzite from a leading Edomite family, Gen. 36.11, and a leader in Israel), Ruth the Moabitess (Ruth 4.13ff), the Kenites (a Midianite tribe, Num.10.29) and others show (see Gen.17.12,13); for the church, see John 10.16; Eph.3.6
- 12 1Cor.15.45,47
- 13 1Cor.15.22.

Contingency, Necessity and the Anthropic Principle

[>>back home](#)

The universe seems to be a contingent structure, not a necessary one; that is, it might be other than it is. But contingent upon what _ chance, or a wise Creator? The Anthropic Principle, a fairly recent formulation in cosmology, makes it look increasingly as if the universe was intelligently planned.

We begin this chapter with a small scenario: three boys in a classroom, one rather brighter than the other two. It is a lesson in Euclidean geometry, and the master is anything but inspiring. As he drones on, one of the boys, to relieve the boredom, draws a triangle. Next he measures the angles. Then he adds them up. The exercise is aimless, mere doodling; but it ends with something rather fascinating. So far as he can make out the sum is exactly 180° ! He informs his companion. "I don't believe you", says the other; but finding it is true, he changes his tune. "What a fluke!", he says or _ "You've done it on purpose"! The third boy had been listening. Now with a superior smile he interposes. "Sillies," he says, "all triangles have angles which add up to 180° ." And with a few freehand strokes he draws a simple diagram to prove his assertion (Fig. 3):

Fig. 3 The angles of all triangles add up to 180°

This rather contrived scene illustrates several points. As far as we need to go into it we can put it like this. When a fact is brought to our notice we face two possibilities concerning its standing. Either it 'happens' to be such as it is, and it might have been otherwise; or it 'has to be' what it is from the rational nature of things, and *couldn't* have been otherwise. In the first case we call it contingent; in the second, necessary. The fact that the angles of a triangle add up to 180° is, we believe, a necessary fact; it follows inescapably from the nature of a plane triangle and from certain propositions (Euclid's 'axioms'), which we hold to be self_evidently true 1. Its identification as a necessary fact follows from our ability to derive it by the principles of logic without any recourse to observation or measurement 2. A contingent fact, however, rests on a different footing. No axioms exist, we believe, from which it could be known through reason and logic alone. So far as these are concerned the actuality might have been quite otherwise. For instance, in the case of our cosmos it is conceivable that the velocity of light might have been smaller than it is, and the gravitation constant larger; biological reproduction might have involved three sexes, and the genetic code might have spelt_out amino_acids very differently. Clearly, knowledge of these things has come only through empirical channels, involving actual physical observation and measurement.

Now the demonstration of contingency 'at the start of the road' (and it is there that we are concerned with it) raises an interesting and important question: contingent upon what? What has selected this possibility to be the actuality and not that? How can we account for the fact that reality is what it is and not something else? One answer to this is that there is no accounting, it is just a 'fluke'; or (if we prefer to make our ignorance sound respectable), that it is due to 'chance'. A second answer is that it is *designed*, contingent on the will and wisdom of some intelligent Being; 'done on purpose' as the second schoolboy put it. Such a Being would naturally be thought of as *personal*; don't 'will' and 'wisdom' imply this? To be sure, this second answer too might be a cover for our ignorance. Yet there is an important distinction between the two. The first closes the

issue; it becomes a dead end. The second invites further inquiry, and holds out the possibility of great reward. If it is the right answer, this Being, clearly of wisdom and power and unless He had handed the cosmos over to chance early on, probably *deliberately purposed* the creation of such creatures as we are. Now men and women have will, intelligence, the desire to know and understand, a sense of the importance of moral issues, longings (even passionate ones) for what is ultimately fulfilling to their existence; and to crown all, they have a tremendous and unique ability called 'language' to communicate their thoughts to one another. This last ability forms the basis of one of their principal and most pleasurable activities, the cementing of friendships; and it is probably the most enriching way of doing so. It would be this from the very first days of the human race; without it they could hardly be called human. My reason for saying all this is to make an important point: on those who entertain this second answer the great likelihood will probably thrust itself that the Being who planned and brought the human race into existence will have revealed Himself to them using language; and that in doing so He will have given them also a clear verbal record to be publicly shared from generation to generation. Of course such a revelation would be historically progressive; later generations would have had the advantage of providential preparation for more, and would have also the necessary technical skills to make it widely available. This is a common_sense view of the matter which I suggest is very reasonable. In writing all this I am not trying to prove my case concerning the Bible. With biblical premises in mind I am trying rather to make plain on what sort of rational foundation belief in verbal, propositional revelation stands: whether it is a crackpot notion, or whether it can be justified in the eyes of thoughtful, open_minded men and women. Apparently it is the former to some popular writers today; but then so are some of their own beliefs (such as that the difference between right and wrong is merely conventional). I hope I have shown however that sensible arguments can be advanced for believing it. So to the questions "Why do we exist? Are we here by fluke, or through Purpose?" we can with reason affirm "through Purpose".

An aside

We have mentioned above the idea of propositional revelation 3. Some may object that the Bible itself declares that divine revelation is given us not in propositions but in the Person of Jesus of Nazareth. This is, we may agree, the ultimate truth; but the passing on to future generations (that is, the vast majority of mankind) of the details of his life and teaching still requires the use of *propositional language*, and this in a permanent written form. His deity for instance, his atoning death and his bodily resurrection are not revealed *de novo* directly to experience in every generation; they are to be believed first because we have them in the New Testament: "Jesus loves me, this I now, for the Bible tells me so". The subject is a deep one; but confirming the authority of the Scriptures was often part of the teaching of Jesus himself (Matt.5:17_19).

The Contingency of the Universe

This discussion has proceeded on the tacit assumption that contingency of the natural world has been established. But has it? Might it not be the case that the universe is simply defined by logical necessity, and could not be other than it is? Several things can be said in reply to this. Of course the testimony of the Bible is wholly against it. God *chose* to create the world, it says; He needn't have done so 4. So is the testimony of our common understanding of ourselves, for at a stroke this idea would seem to make our consciousness of any personal freedom a deceitful illusion, and at the same time deprive us of any grounds for real moral responsibility.

Contingency is also one of the basic convictions of science 5. In ancient Greece when

men began to speculate on the heavenly bodies it was reasoned that these bodies, being heavenly, must of necessity move in circles, since the circle is the perfect curve. This is the rationalistic, axiomatic approach of pure logic. The characteristic approach of science is different. It is first of all observational, i.e. empirical: if we want to know how the planets move we must look and see. Following this line it was discovered that in fact, they moved in ellipses, not in circles. Later, of course, the elliptical orbits were explained as a consequence of the inverse square law of gravitation. But we have to be careful how we interpret this 'explaining'. It is now accepted that scientific laws are better thought of as descriptive, not prescriptive; they don't make things happen, they describe how they do. So it would be truer to say that the inverse square law follows from the observed motions of the planets rather than that the motions follow from the inverse square law. Further, the empirical nature of science is confirmed by the realization that the inverse square law is not the final word; as a result of more accurate observations it had to give place to Relativity Theory (the sort of 'fate' that repeatedly overtakes scientific generalizations). To give this ultimate role to observation is to accept that the universe is contingent; its characteristics are not such as can be derived by logical effort from self_evident truths ('axioms'). Confronted with this conviction we are effectively compelled to believe that our cosmos came_to_be either by the act of an intelligent Creator, or by what in our ignorance we call 'Chance'⁶. The Bible says the former, and it says it with great emphasis.

The Anthropic Principle

The Bible's teaching on this question (the origin of contingency) will doubtless seem to many a very reasonable one; however, few allow it radically to shape their lives. It will appear all the more convincing if we give due weight to a fact which many in our scientific culture overlook or underrate: that the eager, probing, wondering, evaluating mind of man, agitated often with guilt, fear, pain or perplexity, *is itself part of the whole to be explained* _ probably even the most important part. To the necessitarians man can hardly be more than an element in a complex logical edifice, while to those who assign to chance the position of ultimate arbiter he is strictly, just a meaningless cosmic accident, and seemingly a tragic one⁷. Neither of these solutions deals satisfyingly with the problem we have noted, that of man himself; yet this is surely the most agonisingly inescapable of all. But for the Bible, on the contrary, man lies at the very centre of its concern.

That our universe was intelligently planned rather than that it has merely 'happened' is a view which most people, I believe, would agree has been encouraged by some remarkable findings in cosmology. Today probably the favourite theory of origin of the stellar universe is that known popularly as the Big Bang Theory, the discovery of the isotropic low_temperature background radiation having given this theory a decisive advantage over the rival Steady State Theory of Bondi, Gold and Hoyle, now fallen into disfavour⁸. The Big Bang Theory can be very briefly 'under_described' as follows. The universe started as a mathematical point 'singularity' which in the *minutest* fraction (10^{-43}) of a second became a 'fireball' of elementary particles and radiation at an inconceivably high temperature and density. The fireball was exploding, and understandably cooling as it expanded. At first the temperature was so high that nothing but the very ultimate constituents of matter could exist; molecules, atoms and even less_than_ultimate particles would have been instantly shaken to pieces by the enormous thermal energies. As the fireball expanded and cooled the more complex structures began to appear: first protons and neutrons, then helium nuclei; and after that, at much lower temperatures, hydrogen and other atoms. Finally combinations of atoms, or molecules, formed. Meanwhile of course, on a grosser scale, the matter of the universe had been associating into galaxies and stars, some of the latter giving rise to planetary systems.

There for the moment we can leave the matter.

On what is this picture of things based? Firstly, on the well-established observation that the universe is expanding, probably at a diminishing rate. It is not, however, expanding *into* space; it is space itself which is expanding. The picture is fairly clear, and with the demise of the Steady-State Theory it leads naturally enough to the idea of an originally enormous density and temperature at the beginning.

Secondly, the organization of material systems is believed, from a vast amount of experimental work, to be subject to four basic forces. The first, *gravity* is well known. It results in our experience of 'weight' and is relatively very weak. Familiar too is the quite different *electromagnetic* force which holds atoms and molecules together and so gives strength to a piece of iron or wood. Then there are two other basic forces of which we have no everyday experience. They are called the weak and strong nuclear forces, and their sphere of operation is within the nucleus of the atom. Now of these four basic forces three have been satisfactorily related together, gravity alone remaining outside the unifying scheme. The knowledge of how these forces work and of the gross state of our universe at the present moment enables us to calculate – not exactly but in a very approximate way – what, it was like in the past as well as what it will be like in the future, much as we can calculate when there have been or will be eclipses of the sun (only the calculation is very much less precise). This calculation can be carried backwards in time to a point at which the universe was young, small, and inconceivably hot. However, at present there is a limit; we cannot go back beyond about 10_{-43} sec. from the 'beginning' because of our failure to link gravity in with the other forces of nature.

Let us suppose that these calculations can be accepted, and that we may start with the universe as an incredibly hot and dense fireball, expanding with enormous rapidity. What will govern the detailed course of its expansion so far as its large-scale aspects and its physical and chemical features are concerned? Three obvious initial factors are its constitutional make-up, its total material content, and its temperature.

Consider these briefly in turn. Matter exists in two forms called respectively 'matter' and 'anti-matter'⁹. They are each a sort of mirror image of the other. They can mutually annihilate each other with the production of radiation. Had these two forms been exactly equal at the outset then it is likely that our present universe would have consisted of nothing but radiation. In fact, their initial unbalance (perhaps to the extent of not more than 1 part in one thousand million) seems to have been of extreme significance¹⁰. The next two factors are related in an even more astonishing way. The course of the expansion depended enormously on the great physical constants which govern the behaviour of matter: the gravitational constant, the speed of light, the electrical charge on the proton, the mass of the electron, and about ten others. Now the staggering thing about these is that they seem to be related together in such *an amazingly precise way* that our universe has followed the exceedingly narrow path of physical and chemical evolution along which alone conditions could obtain which would make life physically possible. Alter one of the fundamental constants of nature and at the moment when the temperature was right for life there would be remaining practically no hydrogen, an element of supreme importance. Change another *minutely* and hardly a trace of carbon or oxygen would be available anywhere. Given an initial ball of matter, the energy with which it was set exploding had to be fixed with *extraordinary* precision if the universe was ever to be inhabited. Listen to Prof. Paul Davies (on whose fascinating book¹¹ I shall be largely depending):

"If the bang is too small, the cosmic material merely falls back again [gravitationally]

after a brief dispersal and crunches itself to oblivion. On the other hand, if the bang is too big, the fragments get blasted completely apart at high speed, and soon become isolated, unable to clump together into galaxies. In reality, the bang that occurred was of such *exquisitely defined strength* that the outcome lies precisely on the boundary between these alternatives". (my italics and [])

The striking thing is that this sort of conclusion crops up over and over again. Let me quote further from his fascinating book:

"The fact that the two sides of the inequality (3.9) are such enormous numbers, and yet lie so close to one another, is truly astonishing. If gravity were very slightly weaker, or electromagnetism very slightly stronger . . . all stars would be red dwarfs. A correspondingly tiny change the other way, and they would all be blue giants. . . In either case . . . , the nature of the Universe would be radically different" 12.

Or again:

"It is hard to resist the impression of something – some influence capable of transcending spacetime and the confinements of relativistic causality possessing an overview of the entire cosmos at the instant of its creation, and manipulating all the causally disconnected parts to go bang with almost exactly the same vigour at the same time, and yet not so exactly coordinated as to preclude the small scale, slight irregularities that eventually formed the galaxies, and us"13.

And finally:

"All this prompts the question of why, from the infinite range of possible values that nature could have selected for the fundamental constants, and from the infinite variety of initial conditions that could have characterized the primeval universe, the actual values and conditions conspire to produce the particular range of very special features that we observe. For clearly the universe is a very special place: exceedingly uniform on a large scale, yet not so precisely uniform that galaxies could not form; extremely low entropy per proton and hence cool enough for chemistry to happen; almost zero cosmic repulsion and an expansion rate tuned to the energy content to unbelievable accuracy; values for the strengths of its forces that permit nuclei to exist, yet do not burn up all the cosmic hydrogen, and many more apparent accidents of fortune"14.

We can sum up this "catalogue of extraordinary physical coincidences" which have conspired to make the universe a place where life, as we know it, is at least physically possible by saying that it looks as if it has been painstakingly and specifically designed for man. Sir Fred Hoyle, whom no one would have accused of being a biblical apologist, wrote:

"A commonsense interpretation of the facts suggests that a superintellect has monkeyed with physics, as well as chemistry and biology, and that there are no blind forces worth speaking about in nature." 15

This may not be the language of reverence (or be biblically sound), but it speaks clearly enough. It expresses in a popular way what cosmologists refer to guardedly as the 'Strong

Anthropic Principle'16 It amounts almost to a scientific proof that God made the world for mankind to inhabit; almost to such a proof, but not quite. For there are ways of avoiding this implication, legitimate to cold logic. I close this chapter with a perhaps rather contrived analogy to make clear the sort of thing I mean.

Two observers in virtual darkness happen to be looking momentarily towards a point in a thick high metallic wall. Through the wall runs a small precisely formed hole, accurately square and straight. In that brief moment a longish metal object, evidently fitting the hole with very fine tolerances, passes neatly through, with the gentlest of frictional contacts. "Phew!" says the first observer; "Someone must have made that specially and aimed it with phenomenal skill — shape, trajectory, orientation dead right!" "I don't agree", says the second. "Didn't you notice that the wall was very slightly curved? I guess it forms part of a vast enclosure. That object has been bouncing around with an infinite assortment of others for an infinity of time. It's only just got it right" (Reader: please consult reference 17).

Such is the nature of the choice with which the Anthropic Principle confronts us. Cold logic cannot settle this issue for us either one way or the other. In the end which we each settle for will depend to a major degree on our ethical and spiritual outlook, whether we think so or not. For we, the ones making the choice, have a nature ethical and (in some sense at least) spiritual, and *that nature cannot in the end be disregarded*. It is for everyone *the most inescapable part* of that total reality which is our own personal thought-life; compared with it ultimate particles and Einstein's spacetime don't get a look_in.

It remains an unsatisfactory fact that the secular neo_Darwinist, like the second observer, professes to base his understanding of things not upon what he knows with immediacy (his own conscious life), but on what is at far more than arms length away, as far distant in fact from his everyday existence as he can get. Here he misguidedly thinks he has really got to the bottom of things, the ultimate foundation of everything existent — elementary particles and the Principle of Uncertainty! Here, as a convenient technical shorthand, he embodies his ignorance in the notion of chance ('statistical fluctuations in absolute nothingness' perhaps). Nearer home he sees the Principle of Natural Selection (Monod's "Pure chance, absolutely free but blind" 18). In his thinking, Chance (now with a capital 'C') inevitably forgets her humble origins and begins to play God. She becomes creative, and after much statistical labour and with natural selection as midwife, she gives birth — to the neo_Darwinist himself! How else could he have arrived on the scene? Of the things we have been discussing (his personal and moral nature, which he knows best of all) he is not quite so sure. He fumbles over it, and seems a bit tongue_tied. But at least he is sure of his ultimate particles, and sure too that individually, they behave quite unpredictably. Life, it must seem to him, is bounded at both extremes by invincible ignorance. At the lower end there is Heisenberg's Uncertainty Principle; at the upper, the Theatre of the Absurd (like Samuel Beckett's *Waiting for Godot*). His creed is hardly a satisfying or reassuring one; all it can advise him to do is to join in the dance and try to enjoy it 19. But to many in our modern society the secularist outlook is making that increasingly difficult and problematical. The biblical Christian may be forgiven for thinking that only the most determined 'wishful unthinking' can sustain belief in it when the Bible offers a worthier one, which he (at least) finds so much more compelling — and so much more satisfying.

I shall be returning briefly to this theme again in my last chapter.

NOTES

1 The lesson was in *Euclidean* geometry. Since Einstein's work it is believed that real space is non_Euclidean, but the difference on the scale of a drawing board is infinitesimal. For our purpose in illustrating what is meant by 'necessary' Euclid's axioms can be taken as self_evident, and needing no proof.

2 An arithmetic example of such is the pair of propositions: $3 + 2 = 2 + 3 = 5$

3 A proposition asserts something; propositional revelation makes known truths which could not be known certainly through man's natural faculties. Gen.1.1ff, Isa.1.2ff, John 1.1ff and Rom.1.17ff are typical. Matt.11.25ff and 1Cor.1.21ff put the matter in a nutshell.

4 Rev.4.11

5 Scientists believe that events are predictable on the basis of observed precedent, but not on the basis of a priori rational principles or 'axioms'. Quantum physics goes even further; atomic events are quite unpredictable, except in terms of probabilities.

6 Jacques Monod, CHANCE AND NECESSITY, 1972, p.110; Peter Atkins, THE CREATION, 1981, p.119; CREATION REVISITED, 1992, p.149

7 This seems a fair statement of Bertrand Russell's view; see *op.cit.*; chap. 2. Much modern existentialist literature sees human life as basically absurd. See WAITING FOR GODOT, or ENDGAME, by Samuel Beckett.

8 See, for instance, Sir Bernard Lovell, IN THE CENTRE OF IMMENSITIES (Granada, 1980)

9 The electron and positron are the two most familiar examples of this.

10 There are other possible interpretations of the present matter/radiation ratio, but they are equally mysterious.

11 P.C.W. Davies, THE ACCIDENTAL UNIVERSE (CUP, Cambridge, 1982), p.91. Davies at the time he wrote this held the chair of Theoretical Physics at Newcastle_upon_Tyne. He did not write then (nor does he now as far as I know) as a believer in the biblical sense.

12 *Ibid.*, p. 73 (his italics).

13 *Ibid.*, p.95.

14 *Ibid.*, p.111.

15 Quoted by Davies, *ibid.*, p.118.

16 Greek *anthropos*, man

17 IMPORTANT: Other suggestions, such as that based on the 'Many Worlds' interpretation of the Quantum Theory, will tax the credulity of the generality no less. For these and other matters reference may be made to Paul Davies and John Gribbin, THE MATTER MYTH (1991); Steven Weinberg, DREAMS OF A FINAL THEORY (1993); Leon Lederman, THE GOD PARTICLE (1993); John Barrow, THE ORIGIN OF THE

UNIVERSE (1995); and Paul Davies, ABOUT TIME (1995). There is in fact a plethora of books on these subjects at the present time; the suggestions being entertained often provoke the sigh, "What price common sense?" If any reader takes exception to my confessedly inadequate analogy here I would urge him to consult the fine treatment in Denis Alexander's REBUILDING THE MATRIX chap.12. (Lion, Oxford, 2001). Dr Alexander is master of his subject; "this should be compulsory reading" for scientists and humanists, belief or no belief, specialists or generalists (Prof Brian Heap, Vice_President, Royal Society).

18 CHANCE AND NECESSITY Jacques Monod p.110

19 Gary Zukav, THE DANCING WU_LI MASTERS: an overview of the New Physics
(Fontana/Collins, 1979)

Chance Again; and the Origin of Life >>[back home](#)

Neo-Darwinian thinking is in crippling bondage to a mythology of chance. Writers repeat uncritically that mutations are 'random', exploited by the 'blind processes' of natural selection, unaware that all this may still be due to fully purposive, directed activity. It is a logical fallacy to think that an origin of life by simple physico_chemical processes, followed by evolutionary change by natural selection up to and including man, with even a cosmology purely-physical before all this, is inconsistent with the claim that *the God Whom the Bible proclaims* is sovereignly in control at every stage. (An author and his story later illustrates this; see chap. XV).

In a previous chapter we discussed the biblical attitude to 'chance', and saw that the Bible recognizes and indeed uses the concept 1, but this is always in the context of human ignorance where thoughtful deliberation cannot explain things. It implies no limitation on the unseen providence of God which is beyond man's ken. God does not 'play' dice, the Bible says, He 'decides' them; *The lot is cast into the lap; but the whole disposing thereof is of the Lord* (Prov.16.33; see also Jonah 1.7f; Acts 1.24ff). Yet the fall may quite legitimately be regarded as 'random', the result of chance; it may satisfy all our statistical tests for this. Lest this seem an impossible position to maintain let me justify it by a simple illustration due to Prof Donald MacKay 2. The final digits in a column of telephone numbers from the directory constitute a sequence which would probably 3 stand up to any statistical test for randomness which we cared to apply; yet we may be sure that the numbers were allocated by a Telephone Authority on principles of its own choosing based on knowledge of its customers. We have here a system in which statistical randomness results directly from deliberate, intelligent, purposeful activity on the part of a superintending Authority. If it be asked whether a powerful computer given the same customer_information as the Authority could not probably extract the principles on which it worked (and so could overcome the unpredictability of the numbers and their claim to be random), the answer is. "Yes, quite possibly"; but this does nothing to negate the point made by the analogy. This is because the objection is based essentially on the *peer status* of the human Authority; all it knows others too can know. But the God of the Bible has knowledge inaccessible to us and wisdom beyond ours; we could never get hold of it for our computer. The biblical position is therefore quite sound. There seems no valid reason why a similar conclusion should not hold for a chain of *events*, however random they may appear.

In order to make this important point clearer let me give a second example. Consider the sequence of digits 2,8,0,7,3,1,8,9,1,5: is it part of a random sequence or not? Did it result from spinning a roulette wheel or is it the result of a purposeful calculation? I think most people would opt for the former _ unless they smelt a rat! And they *might* well be correct; certainly no one could prove them wrong, or for that matter right. Actually in the present instance, they were taken from far right of the decimal point of the infinite sequence for *pi*; each successive digit therefore brings the whole nearer to perfection. But taken by themselves *they could have been either* 4.

Now chance, or randomness, plays a decisive role in the Darwinian theory of evolution as currently understood. It is especially prominent in the origin and behaviour of the inherited variations which are regarded as the exclusive raw material for natural selection 5. I shall later give some examples of the emphasis that leading evolutionary writers place on the 'randomness' of these; but at the moment I wish to make two comments. First, secularists and 'creationists' 6 commonly regard randomness or chance (if confirmed as such by thorough statistical tests) as ruling God out. He is unnecessary;

everything can be explained without Him. But this can now be seen to be a *false conclusion*. The telephone directory analogy illustrates this. Even if gene mutation, gene recombination, and other chromosome changes pass any available test for randomness 7, divine providence is not thereby excluded. Second, 'creationists' also need to be reminded that the Bible supports this conclusion. Prov.16.33 is a case in point; and it was a 'random' arrow that slew king Ahab, fulfilling God's judgement pronounced through Micaiah 8.

All this has great significance in the present controversy. The secularist claim is that inherited variations are random and have in general *no relationship to any special end_point* for evolution 9. An enormous superstructure of evolutionary philosophy has been erected on this claim, and it is of extreme importance to the whole secularist position, which maintains that *all* betterment is due solely to natural selection 10. It should be apparent that if the claim could be shown to be false, i.e. that the direction of variation *is* related to a grand purpose 11, *then the whole outlook of theoretical biology would change dramatically*. It is not too much to say that a revolution would be involved of magnitude even greater than that which dethroned classical physics 12. In these circumstances it is time that those who insist on the essential randomness of variations (as Monod and Dawkins do) gave some thought to providing solid reasons for their view.

Science as a practical programme

Consider a party of men deposited in unknown country with no familiar landmarks. How do they find 'a city to dwell in'? They look around and choose what appears to be the most promising direction; and they set out. Wisdom dictates that having decided on this direction they should stick to it lest they wander in circles; but it equally dictates that they should be alert for unexpected clues, like traces of previous wanderers or even the persistent hunches of a more experienced member. But of course, they should not be easily diverted from their decision, especially if it seems to hold its promise. It constitutes for them a sort of *methodological principle*, not to be lightly set aside. However, they must recognize that it may prove in the end to have been only for a limited period the best; some better direction may appear later (Newton's idea of absolute space and time is a case in point). Such is the time_honoured pattern, I believe, of scientific progress. The view that genetic variability is quite random has been useful. But it has now led some to the dispiriting idea that the whole of our troubled existence is merely a meaningless "dance to the music of DNA", and will end in absolute nothingness 13. This is surely a conclusion that most thinking men and women would regard as unacceptable (however much they fail to resist it). That human life comes to us like an empty weightless thing that we may fill with what we like and as we like till we flicker out, does not fit the 'hunches' the vast majority of people feel¹⁴. Such hunches need more than a casual say_so to dismiss them.

Nobel Prizewinner, Jacques Monod: CHANCE AND NECESSITY

To illustrate the ill_chosen lead I am drawing attention to, let me begin with a startling paragraph of Jacques Monod's (italics his);

" . . . accidental alterations a DNA sequence may suffer . . . We say that these events are accidental, due to chance. And since they constitute the *only* possible source of modifications in the genetic text, itself the *sole* repository of the organism's hereditary structures, it necessarily follows that chance *alone* is at the source of every innovation, of all creation in the biosphere. Pure chance, absolutely free but blind, at the very root of the stupendous edifice of evolution. This central concept of biology is no longer one among other possible or even conceivable hypotheses. It is today the *sole* conceivable hypothesis, the only one compatible with observed and tested fact. And nothing warrants

the supposition (or the hope) that conceptions about this should, or ever could, be revised." 15

I am still amazed that a man of Monod's standing could have published in such emphatic language anything so unwarranted; but others of almost equal standing continue to repeat it. He is here erecting a mythology! 'Chance' for the ordinary reader (if not for Monod himself) is half-way to becoming a blind goddess, living unfettered in a basement from where she issues her directives. She is, he goes on to imply, the "creator of *absolute newness*" 16. She has a "realm", from the "products" of which she supplies "nourishment" for natural selection. She appears to run a "vast lottery, in which natural selection has blindly picked the rare winners from among numbers drawn at utter random" 17. It all sounds rather like a Babylonian creation myth, up_dated with scientific embellishments. But what could Monod have meant by "Pure chance, absolutely free"?

Suppose we have a die, with faces numbered one to six but in the form of a hollow cube with uniform heavy walls. Thrown repeatedly by a suitable mechanical device, we may suppose all its six numbers eventually come up with frequencies approaching 1/6. "Pure chance, absolutely free"? Presumably. These frequencies however would change if the weights of the walls were all made markedly unequal.¹⁸ Still "Pure chance, absolutely free"? My own reply would be "Yes, certainly", and I guess it would have been Monod's too. But if an occultist present claimed that she had influenced matters by psychic will_power, there would be only one satisfactory way to counter her, and that would be to show that her influences were "superfluous"; the results fitted in well with established physical theory. To do this might take considerable time, measurement and mathematics, but compared with it the corresponding problem involving nucleotides in long spiral chains subject to thermal agitation and surrounded with viscous fluid (hardly uniform on their scale) would be a nightmare. To assert *ex cathedra* that *chance alone* is involved in such cases (as Monod and others in fact do) is simply unacceptable. If secular Darwinists wish to prove their point they must first do their difficult sums, taking into account the physics of the whole molecularly complex system, mutagens and all; and this is a task almost beyond human skills 19. So far as I know they have made no attempt at all to meet this requirement for assuming "chance alone". Its casual brushing_aside by some specialist's confident 'say_so' 20 is hardly satisfying. *Yet even a clear result in their favour from a detailed investigation wouldn't finally settle the issue.* This latter conclusion must be firmly stated²¹; its justification will appear in a later chapter.

Dr Brown meets a hammer

To illustrate my opponents' superficial attitude let me refer again to Monod. He gives an illustration which relies on what he calls "absolute coincidences" arising from the "complete independence" of two chains of events whose convergence produces an accident:

"Dr Brown sets out on an emergency call to a new patient. In the meantime Jones the carpenter has started work on repairs to the roof of a nearby building. As Dr Brown walks past the building, Jones inadvertently drops his hammer, whose (deterministic) trajectory happens to intercept that of the physician, who dies of a fractured skull. We say he was a victim of chance. What other term fits such an event, by its very nature unforeseeable? Chance is obviously the essential factor here" 22.

If this anecdote is presented as fiction, I have no serious argument with it; the novelist has the right to say that the whole thing was "pure chance". But *if it is recounted as a real happening*, that is a different matter. If Mrs Brown had sued the carpenter, what judge or jury would have accepted that "such an event" was "by its very nature unforeseeable"?

Personal relationships hide strange secrets sometimes; there might have been a long-standing grudge between the two. I am surprised Monod has made such an elementary mistake, for his concern is *with real history*, where, it can be argued, 'chance' (like randomness) *cannot be finally proved*. We are back to square one.

A mathematical analogy

We have been discussing the claim that the evolution of life forms has proceeded by a process of natural selection acting on populations in which "chance alone" (Monod boldly asserted), has produced variation; and a majority of secular Darwinists would probably accept this. In a mathematical sequence however, randomness, "chance alone", is something *that can never, in general, be proved*, because an 'algorithm' (here a mathematical recipe) may yet be found to generate what we see. Thus the eminent mathematical physicist Paul Davies writes;

"The decimal expansion of *pi* shows *no obvious patterns at all over thousands of digits*. The distribution of digits *passes all the standard statistical tests for randomness*" . . [so on both counts it must surely be genuinely random?] . . . "Yet in spite of this *pi* is not algorithmically random".²³ (my italics and [])

It is clearly not, for it has been *calculated* to all those thousands of digits! The question of randomness, Davies continues, is "all the more curious since, almost all digit strings *are* random" ²⁴. Noteworthily, it is only when they are non-random (like the expressions for *pi*, base *e*, or root2 for instance), that the 'strings' have any built-in significance. This consideration may not prove anything, but it suggests a lot; if "pure chance, absolutely free", stands at the source of all things, nothing of such built-in significance is expected to appear, least of all *life* and *mind*; but if God stands there, what appears is often *expected* to have great, even vast significance. To embrace a philosophy for life therefore, on the "blind faith"²⁵ that men and women are the products of "pure, blind chance", one day to vanish into nothingness, seems an act of indiscreet folly, especially when the 'reasoning' to which it appeals is so lacking in solid logic (in spite of Monod's claim ²⁶). Even Dawkins agrees that the opinion he opposes has always been held by "the vast majority" of mankind, and is still "nearly universal" ²⁷. Atheistic fundamentalism is two-faced; it strongly rejects the witness of conscience to a future accounting, and it weakly accepts that of secular science to a future hopelessness. In both directions the issues are tremendous; I refer them to John 3.36.

How did life originate?

"The earth is a little less than 5,000 million years old. Life probably originated 4,000 million years ago; the first sedimentary rocks are only a little younger than this, and they contain simple bacterium-like cells. Modern nucleated cells, so-called 'eucaryotic' cells, similar to those of protozoa, green algae and all higher plants and animals, appear very much later, first being found in rocks approximately 1,000 million years old" ²⁸.

I have taken this statement from the well-known book by John Maynard Smith, an acknowledged authority on the theory of evolution. He defines at the start what it is that we mean by calling something 'alive'; it is the possession of three special properties, "multiplication, heredity and variation". In his chapter *The origin and early evolution of life* he goes on to discuss how these three properties could have arisen in the reducing atmosphere of the early earth through the influence of electrical discharges in the atmosphere, ultraviolet light or the escape of volcanic heat. There is experimental evidence supporting many of his suggestions, but tremendous problems remain, such as

the origin of the 'genetic code'. I am not expert enough to criticise the answers which have been given, so I shall not try. I shall follow here another line of argument altogether.

As a believer in the Bible, I have no difficulty with any of Maynard Smith's suggestions. The Bible speaks of origins in very basic terms. Of plant life it says: *God said, Let the earth put forth grass, herb yielding seed, and fruit tree bearing fruit after its kind. . . and it was so* (Gen. 1.11 RV). It speaks of animal life similarly: *God said, Let the waters bring forth abundantly the moving creature that hath life . . . after their kinds . . . And God blessed them saying, Be fruitful and multiply* (Gen.1.20f,22 RV). Bearing in mind that in the time of Moses the terms translated 'grass' and 'moving creature' were quite broad in meaning, and that the qualifying phrase 'after their kinds' often clearly means 'in all their varieties' 29, there is no reasonable ground here for finding disharmony between the biblical record and the fossil evidence. Maynard Smith's criteria for living things, 'multiplication' and 'heredity' are implicit in these biblical verses, and in the light of Gen.4, 'variation' is as well. Again, God always speaks in a way to be clear to those directly addressed, and His language is chosen to be 'user_friendly' in the circumstances of the time (Deut.30.11_14; Isa.45.18f). As I have earlier suggested, this requires that the 'days' of Gen.1 were so named because there were urgent needs to be met 30; for generations coming much later (and acquainted with more of natural phenomena, cf. Job 12.7f; Luke 12.54ff), they have a 'user_friendliness' for more sophisticated minds (cf. Ps.90.4; 2Pet.2.8). As I argued in an earlier chapter this helps us to decide the 'literalness' or otherwise of the 'six days'. But granted all this, there still remains the most fundamental of all the problems connected with the origin of life: did it happen by *chance*, or was it by God's "*let there be*"? I shall use a whimsical approach to deal with this.

Let us suppose that the whole drama of life's appearance on earth had been video_recorded by visitors from space, so technologically advanced that they had been able to record events not only on the macroscopic and microscopic levels, but by means of sophisticated electron microscopy on the molecular level as well. The recordings have somehow fallen into human hands, and they can be played back at a very rapid speed (or a very slow one if necessary) so that the whole story of life's appearance can be seen at a sitting. We imagine a believer in God and a secular evolutionist sitting down to view them together.

As the viewing proceeds it appears that nucleotides and aminoacids had been produced by electrical discharges in the atmosphere, and that later the former had assembled in molecular chains. Then first polypeptides and a little later proteins had appeared. Other key organic molecules, such as the sugars and ATP could be seen, all resulting from what looked like ordinary physicochemical processes. Heteropolar molecules had become organized into films and membranes; myelin figures and coacervates had formed; and, with a suddenness that depended more on the observers' powers of recognition than on the recorded sequences, the viewers see what is clearly a primitive cell. The recording ends.

The secularist turns to his companion with unaffected sympathy; he can see he is a disappointed man. "Well, friend," he says, "if anything proves my case that does. Like Laplace, we have no need of God to explain things; He's nowhere to be seen". The believer does not reply. He is profoundly shaken, but he prefers to think things over before he makes up his mind. It's a good thing he does so, because this sort of debate has been bedevilled from the start by hasty judgements,, such as the one of which I have made the secularist guilty. Let me explain.

My secular evolutionist sat down to the viewing with some sort of idea in the back of his mind of what things would look like if God was really at work, as the Bible said. He had ruled out the *instantaneous* appearance of complete plants and animals, because his friend could reasonably maintain that 'processes' were involved, the earth '*putting forth*' grass, and '*bringing forth*' the living creature (Gen.1.11,24). He wanted to be fair to him, and also not to give him arguing points. But the Bible had used the phrase 'God *formed* man' and the land animals too, from earthy material (2.7,19), and this does suggest something that should have been 'seeable'; how would the recording show it? Perhaps a Figure, full of numinous quality, would appear and be seen to manipulate earthy matter? What about earlier stages, like chromosome formation? Perhaps (in sections employing electron microscopy) certain nucleotide molecules would be seen to break into sudden regular motion, clearly not random, and arrange themselves into conspicuous double helices, like members of a performing troupe pushing purposefully through a Bank_holiday crowd to assemble on stage? If these suggestions are unacceptable, the secularist must be prepared to say what would have convinced him had he seen it, that *God had indeed been at work*. For unless he is able to say what he would have feared seeing, he hardly has much cause to congratulate himself if he doesn't see it. If both he and the creationist persist in their attempts, as of right, to say what things must have looked like if God had really been at work, it will become apparent that *both* are working with a non_biblical conception of God. It is certainly not the God of the Bible of Whom they are thinking; it is rather of a God Who plays no part in ordinary everyday physical happenings. There is no need for Him to do so! Nature has clearly been well_designed (by God or by Chance) and proceeds satisfactorily on fixed built_in principles. Only when He desires to introduce some novelty, they suppose, need God (if it's Him) 'intervene'; and when He does so, it would be at once apparent as a physical discontinuity 31. *But the God of Whom Scripture speaks is quite other than this*. He is the Author, and the continuing Author, of our everyday on_going universe and everything in it. The Bible everywhere speaks in these terms; Gen.9.14_17, Ps.104, Ps136, Matt.5.45, Luke 12.20 are the merest sample of possible references. Scientific laws' represent only our efforts to systematize the pattern of God's ways; they are themselves essentially *descriptive*, not *prescriptive*, as Prof Donald MacKay put it. God does indeed, and for good purpose, sometimes break out of His usual pattern and act in the mode we speak of as 'miracle'; but He is just as much responsible for the ordinary and the usual as for the extraordinary and the unusual. The only difference, as we noted before, is that He isn't so obviously and significantly so 32. Once he has really grasped this it becomes a positive pleasure for the believer to view my hypothesized video_recording time and again. It only drives him to more heartfelt worship 33. As for the secularist, exultant at the conclusion of the show that he hadn't seen what he had hoped he wouldn't, but then coming to realize that the biblical record had never suggested he would, the experience might drive him to a more adequate view of the totality of things. He might come to see that the *observer* attitude beloved of the scientist is concerned with a part only of the total experience of being human. Man is *subject* before he can ever be scientist, and perhaps the principal element of subjectivity has to do with the ethical, with what is for ever right or wrong; it is not with what is 'outside' him, but with what is 'inside' (1Sam.16.7; Mark 7.20ff). It is this that points to a moral Lawgiver even more urgently, and clearly, than his observational science does to a "pure Mathematician" 34.

I cannot forbear in closing this chapter from raising again a matter already discussed (and one I shall probably raise again). All well_known neo_Darwinian fundamentalists with whom I am acquainted make the positive assertion that mutations are 'random', that is, unrelated to "anything . . . that would make life better for the animal", having "no general bias towards bodily improvement" 10. *How do they know?* What genuinely *scientific* evidence 11 can they produce in support of this claim, quite fundamental to their whole

position? Can they even outline an operational procedure which might, in principle, establish it? If not, they are surely blind leaders of the blind. To *treat* mutations as random is, I concede, a methodological principle which is natural and ordinarily quite appropriate *strictly within the scientific realm*. I would not quarrel with its use there. But it must be clearly recognized that as the basis for *a total philosophy of life* it is clearly possible (I would say absolutely certain) that it is invalid, and if put forward, fobs us off with a mean and paltry explanation of the wonder of human existence _ and not as some of them would maintain, an enriched one. I cannot emphasize this too strongly, especially in the teaching of the subject, whether to schoolchildren, students or serious adults.

Let me be more specific: even if mutations should prove, by *any statistical test open to us*, to be 'random' (not just taken as such on an expert's say_so), this would not invalidate the claim that they were providentially ordered. The analogy of the telephone numbers establishes this (see my paragraph following 2). It remains therefore that if Creation and Providence are matters of faith, this secular evolutionism with its reliance on Chance and Necessity is no less so – or rather, of what we might call 'un_faith'. We must make our choice on grounds beyond the bounds of science.

Postscript: Daniel Dennett and his DARWIN'S DANGEROUS IDEA

This book appeared in 1995 and at once created a considerable stir. It is a brilliant tour de force and according to the dust jacket attracted widespread acclaim. Richard Dawkins wrote for instance that having read it he is

"even more positively inspired. DARWIN'S DANGEROUS IDEA is a surpassingly brilliant book. Where creative, it lifts the reader to new intellectual heights. Where critical it is devastating. Dennett shows that intellectuals have been powerfully misled on evolutionary matters, and his book will undo much damage."

That is high praise from one who has been similarly praised by others. Douglas Adams added another tribute:

"A stunning book which demonstrates that Darwinism, far from being on the defensive, is now able to account for what I can only describe as Life, the Universe and Everything at ever more profound levels".

So there it is. Darwin's dangerous idea (chance and natural selection) explains everything: not just living things, but *everything*, from the cosmos and its laws, galaxies and stars, down to man, molecules and electrons. My own estimate is a little different. Dennett's admitted brilliance *is* dazzling, too dazzling in fact. In the end it fails to enlighten. Let me give just one reason for this judgement. Dennett has a chapter headed *Controversies Contained* (p.313). After dealing with harmless 'heresies' he turns to three, the first (at least) of which he says "would be truly fatal to Darwinism" (p.320). This is "the attempt by the Jesuit paleontologist Teilhard de Chardin to reconcile his religion with his belief in evolution". The second is "that other notorious heresy, Lamarckism". These two he deals with in a reasonably thoughtful manner in about three pages. The third he labels 'directed' mutation', a term by which I take it he intends 'theistic evolution'. How does he deal with this? In order to do him no injustice I will quote his entire section verbatim:

"Finally, what about the possibility of 'directed' mutation? Ever since Darwin, orthodoxy [NB] has presupposed [NB] that all mutation is random; *blind* chance makes the candidates. Mark Ridley provides the standard declaration:

'Various theories of evolution by 'directed variation' have been proposed, but we must

rule them out. There is no evidence for directed variation in mutation, in recombination, or in the process of Mendelian inheritance. Whatever the internal plausibility of these theories, they are in fact wrong' 35.

"But that is a mite too strong. The orthodox [NB] theory mustn't *presuppose* [NB] any process of directed mutation _ that would be a skyhook for sure _ but it can leave open the possibility of somebody's discovering non_miraculous mechanisms that can bias the distribution of mutations in speed_up directions. Eigen's ideas about quasi-species in chapter 8 are a case in point" (words in *italics* his, [NB] mine) 36.

It surprises me that a writer of Prof Dennett's standing can be content to treat this absolutely fundamental matter in such a brisk and off_hand way. The presupposition about 'blind chance' is quite acceptable, he thinks: why isn't the presupposition about 'directed mutation'? " 'Directed mutation' would be miraculous", I imagine him replying – quite unconvincingly. He loves the King James Version of the Bible, he says, and must be familiar with Matthew 5.45, 6.26 and 6.28ff. These passages describe God's *present everyday activity* 37, the last, His 'directing' of plant morphogenesis. The biblical witness here is that God is as much the *Doer of the ordinary as of the extraordinary* (Prov.16.33; Psalm 104; Isaiah 40.26); its doctrine is *theistic*, not *deistic*. Surely he realizes this? Does he feel happy at dismissing it all by a simple dogmatic quote from Mark Ridley? To keep telling the unsuspecting layman that genetic mutations are "definitely random, without purpose", is inexcusably irresponsible in the circumstances; and the frequent use of such droll metaphors as 'skyhook' strongly suggests that someone has run out of intellectual steam. Of course the Bible itself insists that *some* acts of God *are* quite out of the ordinary, 'miraculous' in his sense. They occur when God has something of outstanding significance to say, the Resurrection of Jesus Christ being the supreme case. But this happened with plenty of public evidence which has never been challenged with anything like success. But it also insists that the common events of everyday are God's doing too; John 4.48 and Matt.6.26_30 are emphatic confirmations of this.

I shall try to justify my conclusion about ultimate 'randomness' (against which I am arguing) later (see chaps. XV and XVI).

NOTES

1 1Sam.6.9; Luke 10.31 RV

2 See Prof D.M. MacKay's lucid Riddell Memorial Lectures SCIENCE, CHANCE AND PROVIDENCE (Oxford Univ. Press, 1978).

3 'Probably' is not really a significant word here (since '*peer* status' doesn't apply). Final digits (i.e. those in the 'units' place) are specified to ensure that the *apriori* probabilities are equal.

4 This point is important.

5 See J Monod, CHANCE AND NECESSITY, Collins, London, 1972 p.110; "Natural selection operates upon the products of chance and knows no other nourishment".

6 'Creationist' (in quotes) stands for those denying macro_evolution (between 'kinds') while accepting micro_evolution (within 'kinds').

7 This point is re_emphasised later.

- 8 1Kings 22.1_28,34 (NIV, REB, JB; see above, Chap. V).
- 9 See G Rattray Taylor on orthogenesis, *op.cit.*: S J Gould, *op.cit.*; D C Dennett, *op.cit.*; but this does not affect the argument.
- 10 Richard Dawkins, THE BLIND WATCHMAKER pp.306,307,308; also Monod 5, Ridley³⁶ and many others. All 'improvement' comes later, through natural selection, they maintain.
- 11 I am not suggesting that 'a grand purpose' could be demonstrated (*or* ruled out) by science. It lies outside the ken of science altogether.
- 12 In physics the great upheaval came about because of the acceptance of the Uncertainty Principle and Quantum Field Theory in one direction and of General Relativity and the entanglement of space, time and gravity in the other. In biology what awaits acceptance is a basic understanding of self_consciousness and language_assisted thought on the one hand, and of religious experience and moral consciousness on the other. Secular Darwinists have yet to come to terms with this.
- 13 RIVER OUT OF EDEN *op.cit.*, p.133
- 14 *op. cit.* pp. 96, 98
- 15 Monod, CHANCE AND NECESSITY, p.110 (his italics); see also final sentences, p.167
- 16 *op.cit.*, p.113
- 17 *op.cit.*, p.131 cf.p.114
- 18 Wall thicknesses remain the same.
- 19 Deriving Maxwell's equations for molecular velocities in gases would be child's play by comparison.
- 20 Mark Ridley in Dennett, see 36.
- 21 See note 4.
- 22 Monod, *op.cit.* p.111.
- 23 Paul Davies THE MIND OF GOD pp.130f Simon & Schuster, London 1992
- 24 *op. cit.* p .132
- 25 THE SELFISH GENE 3rd edn p.330
- 26 *op.cit.* p.167
- 27 RIVER OUT OF EDEN pp.96,98
- 28 THE THEORY OF EVOLUTION J Maynard Smith 3rd edn. 1975 p.96 Penguin

29 See chap.VI.

30 See Mark 2.27f and chap. III.

31 The Bible does not necessarily require this. The plagues on Egypt (except that on the firstborn), can be accounted for 'naturalistically' quite well (see THE ILLUSTRATED BIBLE DICTIONARY Vo1.3 pp.1234f, I.V. Press, 1980); similarly the passage through the Red Sea (Exod.14.21b).

32 John 4.48; Matt.6.26,30

33 Job 26.14 (RSV, NIV); Ps.29

34 The eminent physicist Sir James Jeans wrote "the universe appears to have been designed by a pure mathematician" and it "begins to look more like a great thought than like a great machine"; see p.202 of THE MIND OF GOD by Paul Davies (*op.cit.*), no biblicist, but his books are strongly recommended; see also Deut.29.29; Isa.66.1,2

35 Mark Ridley, THE PROBLEMS OF EVOLUTION Oxford, O.U. Press, 1985, p25.

36 DARWIN'S DANGEROUS IDEA, p.323

37 The Greek 'present' tense (e.g. 'does') is nearer to our 'present continuous ('is doing').

Darwinism today >>[back home](#)

Darwin convinced the scientific world that 'descent with modification' (i.e. evolution) was (and still is) a fact. This conviction has remained steady and almost universal; but his proposal about the mechanism involved (natural selection) has been through great vicissitudes. Early in the last century (the 20th), its acceptability fell to a low level, mainly owing to the influence of Mendelian genetics. Then in the 1930's a reconciliation took place and the Synthetic Theory (Neo_Darwinism) became established as the scientific orthodoxy. It is still based on natural selection. However, considerable difficulties remain, stressed particularly by non_specialists. The biblical doctrine does not stand or fall, however, with the fortunes of the theory.

The plant and animal worlds (especially the latter) exhibit a fantastic amount of variety. Organisms of all sizes, shapes, structures, textures, habits and life_histories throng the meadows, forests, deserts, mountains, rivers, lakes, caves, shorelines, oceans, and aerial spaces of our marvellous world, and throng them in a richness impossible fully to comprehend. Where did all this diversity come from? It is a natural question, and from quite early days there have been two answers.

On the analogy of things like mineral substances and metals and precious stones, the diverse organisms it has been thought, have always shown the specific distinctnesses that they now show. This is the view commonly called 'Special Creation'. On the other hand, on the analogy of human life, where offspring can differ considerably from their parents and where men and women from distant climes differ even more, it has been thought that in the course of time organisms have diversified in a continuous fashion as one generation succeeded another. This second answer is favoured by the fact that it is based on a closer analogy than the first; it compares living things with living rather than with non_living. But for centuries it lacked popular appeal because within the time available for personal observation _ the mere threescore years and ten _ species don't seem to change. Cats remain distinctly cats, and mice mice. It became much more plausible and attractive when the view gained ground that the earth had had a much longer history than had hitherto been thought. Then indeed the stage was set for it to make rapid progress. Today it is without doubt the majority view among scientists. The enormous variety of living things is due to what Darwin called 'descent with modification'. It is this process of slow but vast diversification, generation by generation, over usually long periods that is commonly denoted by the word 'evolution'.

Evolution in this sense is by no means a new idea. It can be traced back in a very rudimentary form even to the Greeks, who seem to have thought of most things. Much later we find men such as Robert Hooke the microscopist (1635_1703), Goethe the poet and nature philosopher (1749_1832), and Buffon the encyclopaedist of natural history (1707_1778) toying with it. Darwin's grandfather Erasmus Darwin (1731_1802) went further, but suggested no mechanism. It was 'the greatest systematist of his age', the Frenchman Jean Baptiste Lamarck (1744_1829), who first put forward a detailed theory of how evolution might be accounted for. His theory, now often referred to as 'the inheritance of acquired characters', or of 'the effects of use and disuse', still in fact attracts spasmodic support; indeed Darwin himself invoked it for cases his own theory seemed unable to accommodate. But for the most part it has been discarded. Nevertheless, as the first serious theory of evolutionary mechanism it is worth pausing for a moment to look at it. It proceeds on the following lines.

Consider a blacksmith. He develops his muscles by hard work. Part of the muscular improvement (the theory supposes) passes on by physical inheritance to any children later borne to him, and so the community concerned slowly becomes more muscular.

The trouble with this attractive and easily comprehended theory is twofold. First, in spite of intensive search there is no well authenticated evidence that characteristics acquired in this way are ever physically transmitted, and there is a great deal of evidence that they are not. Second, knowledge of the origin, development, minute structure, and preservation in the body of the germ cells reveals no plausible way in which they might be influenced to pass the characteristics on. True, these objections may not be absolutely final: but today they weigh very heavily indeed with the great majority of biologists. Even in his own day Lamarck's theory gained little support; its status remained purely speculative.

Darwin's theory, which came a half century later, was very different. Darwin set enormous store on evidence, and held speculation on a tight rein. His theory thus rested on an altogether more secure basis than Lamarck's. It can be illustrated as follows. Among the blacksmith's sons some would *chance* to have better muscles than others and these would be the ones who tended to follow his trade. In the course of many generations repetition of this pattern would ensure that the blacksmith community became generally more muscular. The result would look the same as that predicted by Lamarck's theory, but the mechanism would be quite different.

Darwin's theory is thus, in its essentials, very simple; it is quite within the power of the layman to appreciate. It starts from two common observations: that offspring vary in unpredictable ways from their parents; and that normally each generation produces more offspring (in lower organisms often vastly more) than can survive and reproduce. This leads to a metaphorical 'struggle for existence' among the progeny of each generation; heritable variations, where beneficial to successful reproduction and survival, dictate the direction in which the population as a whole changes. Two points should be noted especially. First, Darwin regarded the variations involved as *random* in direction, unrelated that is to any pre-determined or purposive direction of evolutionary movement. Second, he thought of this evolutionary movement as being directed automatically towards a single result, success in engendering viable offspring. Together, these two points meant that any characteristic of a living organism (lungs to breathe air, warm bloodedness, even eyes to see) which could plausibly be regarded as conferring on its possessor an advantage in raising a large healthy family would *ipsosfacto* be explainable as the outcome of an unthinking principle ('natural selection' Darwin called it) acting on variations *attributable to chance alone*. This devastating conclusion (very different from Lamarck's) worried Darwin himself, and no wonder. It apparently leads inevitably to the conclusion that human life itself has come to be through a process fundamentally meaningless; man must struggle as best he can to give it meaning. But in Darwin's day this verdict was still over the general horizon, and so was not at once overmuch troublesome.

This is not the place to answer the glib and shallow philosophy of 'Evolutionism' to which the undoubted strength of Darwin's biological arguments has lent great support; that is done elsewhere in this essay. Here we are discussing the details of the theory itself. Darwin was a superb naturalist; highly observant, painstaking, industrious, single minded, honest, cautious, with a vast capacity for absorbing and weighing his facts. The passage of time has served only to confirm his reputation, and his lasting fame is assured and well deserved. He knew there were great gaps in the scientific evidence for his theory, and he was prepared to face them. One of the principal turned on the question of the origin and heritability of the all important variations; and as this has had

a profound effect on the subsequent vicissitudes of his theory we must briefly consider it.

Imagine a population of glass bottles, each half-filled with ink of a different depth of colour; this difference would correspond to the variation between living individuals. The population would 'breed' by the contents of random pairs being mixed and the results shared equally between the two members. (We need not bother to suppose the bottles to multiply and divide as well; this would merely overload the analogy without altering the outcome). This mixing and sharing would be continued again and again with the bottles often changing partners. Clearly, if this process was continued long enough the original state of affairs would give way to one in which all colour variation had vanished. This model in fact illustrates what has been called 'blending inheritance', and it represents the view which was held in Darwin's day of the way in which biological traits are passed on from parents to offspring. Obviously, if it were so, variability would always be tending to disappear, and fairly rapidly too. It constituted a great problem for Darwin, for whose theory as we saw, variability is a prime necessity. He never solved it. Ironically it was solved by the work of Gregor Mendel, a contemporary of his, whose experimental results were unnoticed till 1900, eighteen years after Darwin's death. Ironically too, the science of Genetics to which Mendel's work gave rise, for nearly a quarter of a century threw great doubt on Darwin's theory, which in consequence suffered a partial eclipse. However, we must not mislead; loss of faith in Darwin's *personal* theory did not mean loss of faith in *evolution*. That was never the case; confounding the two is a frequent mistake. Since Darwin convinced the world of science that evolution had really taken place, the idea of evolution has always been in the ascendant. It still is, however much biologists (and other scientists) wavered in their convictions for many years as to how it had been brought about.

Mendel's theory, as it is now understood, can be illustrated by slightly modifying our analogy. Imagine the bottles to be half-filled not with a liquid, but with glass marbles. In some bottles all marbles are colourless; in many others one, or two, of the marbles are black. The bottles are set 'breeding' continuously as before. However long they continue, uniformity of 'colour' throughout the population will never result. At the end, the range in colour will be the same as it was at the start 2. The reason for this is twofold. First, inheritance is here *particulate*, the marbles are passed on as wholes. Second, owing to the behaviour of the chromosome mechanism (unknown in Darwin's and Mendel's day), the 'genes' (as the marbles can now be called) are always *paired*, one of each pair coming from one parent and its corresponding partner from the other. The results of Mendel's experiments fitted very well into this scheme, but Darwin's continuous variation didn't. Where did it come in then? It was a long time before the problem was solved, but to cut a long story short it became clear that Mendel had been fortunate in picking rather simple cases for experiment; the difference between his tall and short peas for instance lay in a single gene 3. But characters are often the outcome of the joint interaction of many genes. If colour in the marbles had involved many different sorts of 'black' gene (black 1, black 2, black 3 and so on), all being independent from one another but having additive and 'look_alike' effects on their host plant, its resultant 'colour' could clearly have varied fairly continuously, even becoming nearly uniform in time.

The establishment of Mendelian genetics on a firm experimental basis (which Darwin's theory in his own hands could hardly have aspired to), led to a long period in which Darwin's ideas were in partial eclipse, and many great names can be cited against them. *Evolution they still believed*, but not Darwinism. It was not until the second quarter of the last century (the 1900's) that the apparent antipathy between Darwinism and Mendelian genetics began to be resolved 3. The realization that made this possible was that genes worked together in large numbers; it was the whole 'gene complex' that must be

considered, not individual genes acting alone. If a character (like size) is under the control not of one gene only but of a hundred, then clearly heritable variation could be much more continuous. However, things are in general much more complex even than this. The organism is rather like a social gathering, where the behaviour of any one guest may be markedly dependent on who the others are. On one occasion a guest may have a lot to say for himself; on another he may be quite subdued. This realization, as has been remarked, began to transform the impact of Mendelian genetics on Darwin's theory; and somewhere in the 1930's a new Synthetic Theory of Evolution, often called neo_Darwinism, began to find general acceptance. The outstanding mathematical work of the 'population geneticists', Fisher, Haldane and Sewall Wright, had a great deal to do with this, and today neo_Darwinism is still the prevailing scientific orthodoxy. What neo_Darwinism supposes is that natural selection operates on heritable variations due to sudden discontinuous 'mutations' in the genetic material, all intricately interacting within the whole genetic complex or 'genome'; the result understandably sometimes simulates Darwin's continuous variation. The synthetic theory is therefore still justly known by Darwin's name. His key idea (natural selection), and Mendel's, it is believed, have proved not rivals, but partners 4.

Does this mean that the wider scientific fraternity is now satisfied that the answer has been found to the riddle of how evolution has occurred? Before I attempt to answer this question I must disclaim any specialist knowledge. I am a biologist, but I cannot speak as an expert here. However, I will attempt an assessment. It is probably true to say that those whose work is most intimately concerned with the subject – the population geneticists, the evolutionary systematists and so on – do feel satisfied, though they would insist that we have a long way still to go. Other thoughtful biologists and those from disciplines further afield may not be so sure. Many readers will know, for instance, of the sarcastic comments of the cosmologist Sir Fred Hoyle, who uses arguments based on probability but of questionable validity (as indeed many of such arguments are)5.

This rather unsatisfactory position arises like this. Evolution concerns what happened in pre_history; consequently evolutionary theory (grappling with aeons of time) can never be tested in the way in which theories of brain function or quantum mechanics can. At the end of the day we inevitably find ourselves up against the question, "Do I find this credible?" Consider as an illustration the well_known case of the origin of the vertebrate eye. Can it really be believed that such an amazing organ, with so many complexly interacting structures and functions working together, has resulted from nothing more than chance variations acted on by the unthinking process of natural selection? Darwin himself, as is well known, stumbled at this suggestion, though he came down finally with the answer "Yes". In theory, as Richard Dawkins well argues, all stages from nothing to the perfect eye *can* be thought of as worthwhile. He then goes on to quote Fisher 6, that as a mutation becomes *smaller* in its effects, so the likelihood of its being a *beneficial* one rises towards 50%; so where's the problem? But as Donald MacKay pointed out, as the mutation becomes smaller and its probability of being a 'good' one rises towards this 50%, so its *benefit* falls towards zero! An additional and important consideration is that the very same mutation that benefits one function (enlarging say the skin flaps of flying squirrels) may detract from another (weakening its climbing muscles). Dawkins' argument tends to forget these things. But all such suggestions can hardly be proved; they will probably remain to the end of time either credible or incredible. It is pertinent to remark that what one finds oneself able to believe (or forced to disbelieve) is dependent not only on scientific arguments but also on one's basic presuppositions. Are scientific categories for instance ultimate, or are there others behind and beyond them? Is there, or is there not, a Creator? And if there is, how far can naturalism (that is, the common methodology of science) be pursued before it comes up against a final limit? These are

not insignificant questions, though they are often treated as such by the intellectually_blinkered secularist.

The reader who is interested in other difficulties of neo_Darwinism might consult THE GREAT EVOLUTION MYSTERY by G Rattray Taylor 7. I mention this because the author writes as a convinced secularist, but he does knowledgeable and systematically catalogue the serious problems facing the current orthodoxy.

Of the problems which can be appreciated most easily, that of 'missing links' comes first. Suppose an artist had produced a detailed series of drawings illustrating evolutionary change as Darwin envisaged it, serializing the gradual transformation of a 'fish' into a 'reptile'. The drawings would be meant to represent many possible stages through which the living stream of vertebrate life has smoothly passed. The question is this: why can't we find a series of fossils which, arranged in temporal order, answers to a similar continuous sequence? This is the problem of the missing links. Where are they all? There are cases where the fossil record does yield the sort of thing we want (such as the oysters), and there are cases where two large distinct groups appear to be connected by a more_or_less isolated intermediate form (such as the reptiles and the birds with *Archaeopteryx* between); but these are not very substantial offerings in the face of what the theory seems to demand. The difficulty is by no means a slight one; the usual reply has been that the fossil record is very incomplete. It provoked the eminent palaeontologist and geneticist Richard Goldschmidt to propose his theory of 'hopeful monsters' 8 _ that many evolutionary changes (such as the acquisition of hair in mammals, or feathers in birds) took place not in gradual stages by natural selection, but in one fell swoop, by a sort of gigantic genetic leap. More recently has come the theory of 'punctuated equilibria' associated with the names of Niles Eldredge and Stephen J Gould. They suppose that a very common occurrence has been a long period of relative stability (with abundance of fossils) followed by a brief period of considerable and rapid change (leaving few), and followed again by a period of stability. Eldredge's attention had been attracted by a form of trilobite (a sort of giant woodlouse) abundant in a fossil bed suddenly dying out and being replaced by a distinctly different form. Causes for such phenomena have certainly been suggested (the isolation of small populations, or some great catastrophe). But the inevitable credibility problem remains; nothing in the past can be experimentally re_enacted. 'Punctuated equilibria' appears to many (including Dawkins himself) as an unnecessary suggestion; it is, however, being warmly defended.

Several major themes remain to be briefly mentioned. It may surprise the reader to know that no generally accepted explanation has yet been proposed for the phenomenon of *sexuality* in plants and animals. Why is this phenomenon so widespread? It is not logically necessary for procreation, in fact many organisms get on quite well without it. To secular biologists, its prominence remains a considerable mystery 9. Another debatable point amongst Darwinists concerns what most people would regard as obvious: is 'progress' a right evaluation of what has taken place during evolution? Dawkins, Atkins and Dennett are quite tongue_tied on this too 10; the Bible is clear and outspoken. Finally, at the base of the edifice of orthodox theory lie the immense difficulties surrounding the origin of the genetic mechanism itself. For instance, the DNA 'tape' containing the genetic instructions requires enzymatic proteins to fabricate it, but the enzymatic proteins themselves require the DNA tape to fabricate *them*. How does the whole system get off the ground? Further, how and when did the astonishing mechanisms for its near_impeccable operation develop, complete with the highly significant 'crossing_over' between the two strands? There may well be answers to these points coming within the competence of naturalistic science to unravel; but I am not quite so sure about the final one, how the language or 'code' in terms of which the DNA delivers

its message, came to be what it is. The biblical theist certainly has to beware of invoking a mistaken 'God of the gaps' solution here and elsewhere; its god is too small! The Bible warns him too that ultimately his mind has final limitations (Deut.29.29) and he must accept them. The secularist also has to beware of giving equally trivial answers, the sort which compel him to lay the matter finally at the feet of the goddess Chance. How does *she* answer? Easy; by the simple principle of self_reference. Non_existent spacetime generates its own dust (up till then also non_existent), and this dust then returns the compliment! After that everything is simplicity itself. If the reader wishes to follow that up he may do so in two references 11. But he had better get in touch with Douglas Adams first; he will need the latter's 'electric monk' for success; "he was purpose_built to do your believing for you, and very successful at it"12. For myself, I am fully persuaded that at some point (I am far from prepared to say exactly where), naturalistic science, dependent at rock bottom on the evidence of the physical senses, finally loses its ability to offer any further coherent explanation 13 on such matters of unrecorded history.

The positive side of evolution

It would not be fair to leave this account of 'Darwinism Today' without some comments from the opposite angle. My opponents, while intending to be admirers of Darwin are in fact possibly doing his cause a great disservice. The flimsy suggestions Prof Atkins has offered for the very beginning 11, and Dawkins' unattractive attitude to those who differ from him will hardly persuade most readers that they are sound and reasonable advocates. So what are the solid grounds for believing in Darwin's *Descent with modification*?

The first is the fossil record. This bears irrefutable witness to the fact that a vast range of animal and plant species have existed on the earth of which no living members remain today. Indeed, so great is the variety of fossil forms now known that it is estimated that extinct species outnumber living ones by one hundred to one 14. But the record can hardly be read as indicating an incredibly rich variety at the beginning (the opening week?) of which all but one in a hundred have now died out. It seems much more reasonable to suppose that as some forms died out others replaced them, the number of living forms possibly continuously rising. The theory of evolution makes sense of this; the idea of 'special creation' (as earlier defined)15 doesn't _ at least, not without biblically_unwarranted sophistication.

Another very striking fact about the living world is its unity. This is true in at least two ways. *Biochemically*, a vast range of molecular groupings and enzymatic systems turns up repeatedly 16; again, *genetically* the significance of DNA and the genetic code are universal. No doubt a case could be made out for these things being highly desirable (and so explicable) on the basis of 'special creation'; but I must confess they seem to me far more naturally meaningful and comprehensible if living things are related by an evolutionary (but not necessarily a Darwinian) mechanism. Perhaps we could add a third way in which the living world is a unity: *systematically*. For living things can to a large extent be classified in a hierarchical fashion: species, genera, families, orders and so on. It seems an entirely natural impression that all species of rose say, or of iris, must be related, and not just in the sense that their flowers have the same form, but in the sense (being living things) that their genealogies must join up somewhere as we trace them back. And if genera thus comprise species from a common origin, why shouldn't the same argument hold for genera, families, orders, . . . and where does one stop? And that of course means evolution (though again, not necessarily Darwinian).

Conclusion

It is time this chapter concluded. It has attempted to give a fair resumé of the present standing of the currently orthodox theory of evolution, Neo_Darwinism. It has possibly

left perplexity, even uneasiness. Evolution at one moment it may seem to say, is utterly indisputable; it stares you in the face. But the next moment there are some doubts. Why aren't all the great animal and plant phyla seen to join up more obviously in the fossil record? The gaps seem sometimes to be enormous. We find enough significant links (such as *Archaeopteryx*) to hold out great promise, but hardly enough to satisfy. It is all devilishly teasing! Darwin himself once remarked that the origin of the angiosperms or flowering plants (the reader must forgive my being a botanist) was "an intolerable mystery". It still is, as are many other comparable origins; and that after well over a century and a half of intensive search and research. Then as to mechanism; there seems no acceptable alternative to the synthetic theory. But while the specialists regard it as entirely competent to cope, many highly qualified non_specialists have the gravest of doubts. At the lower end of the evolutionary ladder, where the debate concerns the origin of life from non_living matter, there is no consensus. Moreover, the determination to push naturalism to the extreme limit is so great (here as in cosmology) that no end of the controversy with secularism can be seen through the latter's sheer exhaustion. However, the objective of this essay has never been to dislodge Darwinism, not even the dogma of the spontaneous generation of life. It has been to commend the biblical doctrine of creation as still "worthy of full acceptance". That doctrine I have attempted to show, does not stand or fall with the fortunes of evolutionary theory; it completely transcends it. It stands on the authority of the Bible as confirmed by Jesus Christ. The uncertainties and vicissitudes of evolutionary theory are of no more significance to it than are those of gravitational theory. Once we have grasped what the Bible implies by the Sovereignty of God¹⁷ over even what men think of as 'randomness' or the 'Dominion of Chance', the intellectual problem (at least) is gone. Only the desire (hardly confessed perhaps even to themselves) to escape from God (Rom.1.28 NIV) stands in the way of men and women receiving the Bible as "God's Word written"¹⁸, and ordering their lives by it.

NOTES

- 1 For instance, the failure of the 'foot_binding' of Chinese women to influence subsequent generations.
- 2 That is, if there was some device present to limit the number of any *particular* type found together to two. In the living cell this is the chromosome mechanism; it is omitted here for simplicity.
- 3 The phenomenon of 'dominance' complicated matters here very slightly.
- 4 For a popular fair_minded review see Alan Howard CREATION AND EVOLUTION (Triangle, 1985). A more technical account is J.Maynard Smith THE THEORY OF EVOLUTION (Penguin, 3rd edn. 1975). GOD AND EVOLUTION R J Berry, (Hodder and Stoughton, 1988) seeks to reconcile Genesis and neo_Darwinism.
- 5 GOD OF CHANCE, D J Bartholomew (London, SCM Press, 1984)
- 6 See THE BLIND WATCHMAKER p 231f
- 7 Secker and Warburg, 1983. Rattray Taylor was a convinced secularist.
- 8 THE MATERIAL BASIS OF EVOLUTION, Richard Goldschmidt (Yale Univ. Press, 1940)
- 9 THE SELFISH GENE, pp.43,274. For a longer discussion see THE THEORY OF EVOLUTION, John Maynard Smith, 1975, 3rd edn., Penguin.

10 THE BLIND WATCHMAKER, pp.262f,268. The Bible says something positive on both points: see Gen.2.18 for sexuality and 1.26 for progress.

11 THE CREATION, P.Atkins pp.99,111f,119; CREATION REVISITED p.vii (What amazing dreams!)

12 Dawkins in THE SELFISH GENE, p.330. He is quoting Douglas Adams, DIRK GENTLY'S HOLISTIC DETECTIVE AGENCY, Pan Bks, London. 1988

13 See possibly the phenomenon of language (Gen.1.28; 11.7); also the death of the firstborn (Exod.11); and supremely, the Resurrection of Jesus Christ (1Cor.15.1_8).

14 Rattray Taylor *op. cit.* p.86

15 Chap. VI

16 The same twenty or so amino_acids form the common constituents of proteins from all organisms; they are all in the same (laevo_) form; ATP is a universal energy metabolite: chlorophyll is related to the haeme of blood; and so on. Not surprisingly, cell ultrastructure shows many universal features too.

17 The references in the Bible are too many to quote, but see Eph.1.11; and Chap.II.

18 Article 20 of the "39 Articles" of the Book of Common Prayer

Taking stock of man >>[back home](#)

The threads of the biblical and scientific accounts of the origin of the human race are drawn together, and an attempt is made to relate them. The biblical account of Adam and Eve, and of their sin bringing death to all the race, and the view of *established science* (as opposed to speculative metaphysics) are compatible. Further, what follows specifically from the Bible's account points a rational way through some tormenting problems for thought, though it means acknowledging that the methodology of science will eventually discover a limit.

Up to this point we have been taking a fresh look at the more prominent features of the biblical record of origins to see if the interpretation we have inherited and have more_or_less taken for granted is still justified. We have been re_examining the text with the help of what we have learned from the scientific study of things to see if the latter throws any light on our traditional views. We recall that the Bible teaches that the phenomena of physical nature are visible manifestations of divine activity; and that what we see there acts as a sort of illustrative background to our understanding of *revelation given verbally* (Isa.55.10; Matt.16.1ff; Ga1.6.7f). The vivid story of Elijah in 1Kings 19.11ff shows us how these two avenues of instruction are related: the revelation of the divine power in the wind, earthquake and fire was a backdrop to the vital message of the 'still, small voice'. This it was which communicated the will of God plainly to His servant, how he was to act. All the manifestations were from God; but finality belonged to the Word. So in pursuance of our objective of removing stumbling blocks to faith we will consider those elements of the biblical record which loom largest in our dispute with the world of secular scientific thought.

First comes the question of the 'six days' of Genesis 1, recalled in the Sabbath commandment of the Decalogue (Exodus 20.8) in a way which must often have puzzled sophisticated congregations. We have seen reasons for maintaining that the problem here is that the Creator God of the Bible is infinitely greater than the domesticated deity most objectors have at the back of their minds, for the Bible's Creator more than fills the most exalted conceptual framework we can ever devise for Him. In making Himself known to men He has had therefore to stoop to enter the doors of their understanding, and this is one chief cause of the problem. As John Calvin, the great commentator of the Reformation, wrote centuries ago, the Spirit of God, speaking in Scripture 1 "*chose rather after a sort of stammer than to shut up the way of learning from the vulgar and unlearned sort*" 2. That God's own phased, progressive establishment of the vast universe is spoken of in terms of 'six days' followed by a 'seventh, of rest' is thus not difficult to understand. Such language prepared the way for the strongly_worded imposition 3 of a weekly routine (unrecognised perhaps as a great blessing) on an enslaved and harshly_used people, poorly rewarded for work and correspondingly suspicious and ready to react sourly. Was there not wisdom in making the 'imposition' look as welcoming as possible? something to be eagerly snatched up, rather than sullenly resented? How better than to say that it was the way God lived His own life? God's fatherly concern for 'the vulgar and unlearned sort' 4 explains, I believe, why the command was presented in this homely dress, rather than in one to be later scientifically approved. Then the *evening came and morning came* related to the repetitive pattern of so much in man's life 5 (such as its wake_up vitality and its bedtime weariness) to the tireless eternity of God. These contrasts would have been lost if the Bible's 'six days' had been instead 'six phases' or 'six aeons' as later scientific thought might have preferred. Human life's briefness will brook no delay, for there are great lessons it must learn; short days are man's lot, and rest won

after work done is the reward. God is here teaching His people, and the lessons are (and always will be) more important than the science 6.

Next we recall that the tendentious concept of 'special creation' (or the 'fixity of species') cannot be laid unequivocally at the door of Scripture. The biblical language is in fact, extremely general in its description of how life_forms actually came into being. The earth 'vegetated vegetation'; the waters 'swarmed with swarmer'; the earth 'brought forth living creatures' 7. Further, the most obvious meaning of the first statements containing the key phrase *according to (or after) its kind* (Gen.1.11,12) is that each kind of plant was to bear seeds reproducing others like itself, and this is indeed no triviality. It asserts a very fundamental matter: the contingency on the Will of the Creator of a simple fact of biology we take for granted. *It would be quite reasonable to take this first occurrence of the phrase as giving it a definitive meaning in this whole context.* It also has an eye of course to the great variety in plant life; this emphasis is even more evident with the marine and land animals (Gen.1.20,24), where the Jerusalem Bible renders the text 'God created *every kind of living creature, every kind of wild beast*, and so on 8. It cannot be maintained that either of the two renderings (AV, JB) of the critical phrase positively supports 'the fixity of species' or 'special creation'. Rather they affirm first, that living creatures *in all their many varieties* came from the Creator; and second, that He gave to each the power *to reproduce its own kind* and in this way 'to be fruitful and multiply'. These two affirmations are both more theologically and biologically fundamental than one of permanent temporal fixity; and they are surely of wider interest too. (Suggesting that 'kind' is a different thing from 'species' simply to preserve 'special creation' is, I believe, merely fiddling).

We go on to recall that the biblical data give us strong reasons for believing that the primal creation was not (as is often imagined) idyllically perfect. It contained fierce animals; death and predation were among its features. For man was to subdue and civilize it; his was to be a Messianic role. The coming of man, a creature 'made in the image of God' to have fellowship with God, was accordingly associated with the culture of plants in a selected environment; and one of his tasks, it seems reasonable to believe, was *ultimately* to bring about a vegetarian basis for animal nutrition as well as for his own; but it nevertheless seems consistent with the biblical data to believe that even he himself began as an eater of meat as well (see chap.VII).

The first man of whom the Bible speaks, Adam, was formed of dust from the ground, as were the land animals and birds 9. But in the case of man alone a further detail is added: God *breathed into his nostrils the breath (nesama) of life*. This seems to indicate for man a unique relationship with the Spirit of God, not shared with the animals. It recalls the incident recorded in John 20.22, when Jesus *breathed on them and said to them, "Receive the Holy Spirit"*, an incident which seems undoubtedly to look back to Gen.2.7 10. This is significant, for the New Testament speaks there of a new creation (2Cor.5.17) differentiated from the old in just this way, i.e. in its relationship to the Spirit of God. This point will be taken up again very shortly; but for the moment we note that the Bible does not positively imply that this creative act constituted Adam the biological ancestor of the entire human race. Rather, it established him as the racial head, the 'type' of Jesus Christ. This is an interpretation which has been argued at length in chapter X. Living nearby, the Bible gives us reason to believe were other members of the race from which Adam had been taken (as millennia later Abraham was to be taken from his compatriots and removed to a new land). From among these one was brought to Adam in the Garden, to the accompaniment of a profound dream, to be his wife (as later Rebekah was to be brought to Isaac). The purpose of Adam's segregation, we may surmise, was to equip him for leadership in fulfilling man's role of '*subduing the earth ...and having dominion*'.

Certainly at some time he or his descendants would have had to leave the confines of the Garden if man was to populate the whole earth; the residence there was only a temporary expedient. There are biblical parallels for all these suggestions therefore¹¹.

Adam failed in his calling, as later the nation of Israel failed in its¹². What was the result? *Sin came into the world and death through sin*¹³. Adam and Eve, having chosen moral autonomy instead of obedience to the Creator as their principle of conduct¹⁴ were expelled from the Garden. They lost the privilege of familiarity with God symbolized by the Tree of Life; they were *cast forth as a branch and withered* (cf. John 15.5,6). This death of the spirit in alienation from God constituted the 'sting', that which now makes the prospect of an end to our physical life so sad and oppressive¹⁵.

Much of this we have expressed in theological terms. The question must now be faced: how can it be made to tie_up plausibly with events which may have happened visibly on the plane of human history? This is a legitimate and pressing question, and to answer it we must undertake somewhat of a digression. To begin, suppose an infant a day or two old were to be abandoned on a desert island and to be almost miraculously saved from death by an animal mother who reared it with her own litter. Twenty years later such an individual could not rank as fully human. Its personality would be quite undeveloped; its ability to communicate rudimentary¹⁶; its self_consciousness quite questionable¹⁷; its moral awareness limited to what was, in an animal way, merely anti-social. It could hardly be blamed if it walked off with a visitor's watch! It would have all the genes; but what the genes were capable of mediating in the way of truly human personality would remain largely unrealized. The case, in fact, illustrates what we mean by human solidarity: men and women cannot be fully human apart from contact with other men and women. When Charles Darwin first encountered the natives of Tierra del Fuego he was much impressed with their low development:

"The Fuegians are in a more miserable state of barbarism than I had expected ever to have seen a human being. In this inclement country, they are absolutely naked, and their temporary houses are like what children make in summer, with boughs of trees... I shall never forget, when entering Good Success Bay, the yell with which a party received us. They were seated on a rocky point, surrounded by the dark forest of beech; as they threw their arms wildly round their heads and their long hair streaming they seemed the troubled spirits of another world"¹⁸.

"But, I have seen nothing, which more completely astonished me, than the first sight of a Savage; it was a naked Fuegian his long hair blowing about, his face besmeared with paint. There is in their countenances, an expression, which I believe to those who have not seen it, must be inconceivably wild. Standing on a rock he uttered tones and made gesticulations than which, the cries of domestic animals are far more intelligible"¹⁹.

Many years later (1870) Darwin heard of the work done by Christian missionaries in Tierra del Fuego. He was amazed at the change brought about in the natives. Darwin wrote to a fellow shipmate of the *Beagle* days, then Admiral James Sullivan of the South American Missionary Society:

"...the success of the T. del Fuego mission. It is most wonderful, and shames me, as I always prophesied utter failure. It is a grand success. I shall feel proud if your Committee think fit to elect me an honorary member of your Society"²⁰.

Darwin, as missionary work later showed, had been mistaken about the Fuegians. They were far more 'human' than he had imagined, with a complex language and involved

religious beliefs. No matter; they still serve as illustration of an important point. The unevangelized Fuegians, like the infant reared by an animal mother, had potentialities which for different reasons had (conceivably) never been realized. So far as we know, their condition had never been higher than it was when Darwin saw them. What transformed them was contact with men and women who taught them ennobling things. No doubt outside contact taught them also undesirable things _ how to be sinners as well as saints. That goes without saying; but it reinforces the point being made: the profound effect of what the secular historian would call 'culture'. The matter can be applied in this way.

Imagine a stock of primates living together in a primitive society, never having known anything higher. Among them settle two missionaries, a man and his wife. What will happen? There might, on the one hand, be a dramatic rise in the level of their culture, materially and spiritually. Darwin learnt and acknowledged this in the case of the Fuegians. On the other hand, nothing might happen. The primitive society might prove incapable of elevation, like a society of the great apes. Why the difference? It might be said to lie in a latent potentiality, present in the Fuegians (but never before realised), absent in the apes. Now, it might be urged, doesn't the presence or absence of this potentiality constitute a difference so distinct and discontinuous that we must regard it as a matter not of degree but of kind and rule out any continuous developmental connection between the two? Not at all; and we can demonstrate this by an elementary argument.

Consider a simple system _ very simple indeed, a mere mixture of the two gases nitrogen and hydrogen 21 . Suppose this mixture to grow progressively richer in hydrogen. There comes a point, more or less suddenly, when it acquires a striking new property _ the ability of a jet of the mixed gases to sustain a flame. Before this point, expose it to a spark and nothing happens; after it, the thing is alight. This easily comprehended example shows that there should be no difficulty in supposing that the progressive enrichment of the material system mediating life can result in the acquisition, more or less suddenly, of a completely new possibility never dreamed of before. For 'flame' read 'spirit', and the case we are arguing, if not explained, is rendered more comprehensible.

We can now return to our previous train of thought. Can the biblical story of Adam and Eve be woven_in to the fabric of an evolutionary origin of the human race? Possibly in this way: a sub_human stock had evolved to the point where the potentiality for true humanity had appeared. The members were doubtless more primitive than the Fuegians Darwin saw, but they may have had a rudimentary language, some powers of conceptualisation, musical and artistic sense, tool_making ability, the ability to plan ahead, a recognition of and an elementary response to death 22 . But the sub_humans were still not truly human; they were not yet ready for the flame to be applied. Then one of their members began to act unusually. He took to walking by himself, seeking solitude. This culminated in a transforming *religious* experience, perhaps something like Moses' (Exod.3.1ff), Samuel's (1Sam.3.3ff), or Paul's (Acts 9.3ff), except that the recipient was, until then, not truly human. But it can be believed (surely without violating biblical principles), that such an experience made him a 'new creation', at last in God's image (2Cor.5.17) 23 . Things may not have occurred as I have sketched, but it is at least one possible scenario. Then, as happened later to Abraham, came removal to a new land, perhaps this time from Africa to the Middle East. Instruction in agriculture followed (Gen.2.8; Isa.28.23_29). Meanwhile, or a little later, God dealt similarly with a female sub_human; she too came to the same region, and God revealed His purpose in this to the man in a vivid dream. He awoke to find a woman by his side, and with his growing understanding of the providences of God he took her to be his lifelong companion, as Isaac was later to take Rebekah and Jacob, Rachel.

Where are we to think the story might go from here? At this point it is relevant to note that the Bible does leave us with suggestions that Adam was a member of a race already fairly numerous on the earth, for Cain's complaint in Gen.4.14 was that his punishment meant that "*anyone who finds me will kill me*", and it is hard to interpret this of mere long-sight into the distant future.

On a more general level and speaking tentatively and speculatively, we may imagine that God's intended purpose was to prepare Adam (as we will now call him) to lead his not quite human relatives into the good life of authentic humanity (as much later He sent Christian missionaries to the Fuegians); but that alas! the first man and his wife fell through the unbelief of pride, as Genesis 3 records in its famous account. Man and woman turned from the creaturely principle, *obedience to their Maker*, to the notion that they had the wisdom and power *to decide for themselves* how they should live: that is, to the devilish mastery of the self-centred principle. Their relationship with God instantly withered, the Spirit left them, and they died. In solidarity with those who now looked up to him as their leader, Adam could not but communicate all this to them all. That and how God had expressed His will for men and women had now become common knowledge, and experience became for each of them what later it was for the apostle Paul: '*Once I was alive apart from law; but when the commandant came, sin sprang to life and I died*'²⁴. The mere overstepping of the social code of an animal existence had now found a wholly new and burdensome theological dimension: it was sin, an offence to God. The innocence and bliss of ignorance had gone forever²⁵. Simultaneously, physical decease had acquired a deadly sting; it was the painful anticipation of judgement to some²⁶. The solidarity of the race (as defined earlier) had seen to it that the penalty extended to all. I don't think this is a far-fetched scenario; it constitutes of course a suggestion outside the sphere of physical science. It is, I believe, consistent with Scripture; and it faces squarely and interprets realistically the inner experience of everyone — of 'falling short' of what he or she ought to be. It makes at once comprehensible Paul's assertions that '*by one man's disobedience many were made sinners*'; that '*one man's trespass led to condemnation for all men*'; and that '*death spread to all men because all men sinned*', even if their sin was not, like Adam's, the disobeying of a direct command, individually received²⁷.

No doubt at this point (if not before) an objection will be raised. "Isn't this going far beyond what the Scriptures tell us — particularly what the Old Testament does? Isn't there too much speculation here to be acceptable?" I admit the force of this objection, but I think it can be overestimated. I would be much more cautious of speculation were it intended as the foundation for any considerable dogmatic edifice, like the speculations of Peter Atkins for instance. We can be sure the Holy Spirit would have given us something much firmer for that. The purpose here is something far less ambitious. It is simply to remove difficulties — to show that the data of revelation and of science are not irreconcilable. There is surely a legitimate place for speculation in this. Further, the speculation has been guided and controlled by explicitly biblical principles — the well-known Pauline analogy of Adam and Christ, and the parallel between Adam and Abraham, each of whom was the father of a 'multitude of nations'. Finally, there is the general recognition that it is part of the practical genius of the Bible to tell its story very selectively, even in what might be called a fragmentary fashion. Of none of its great characters (even of Jesus Christ) are we given a biography anywhere near complete by modern standards. Its history is more or less confined to Israel, and even then is extremely sketchy. It passes over in almost complete silence the outstanding problem of the origin of evil; and so on. The Preacher refuses to be side-tracked; his one purpose is to teach men and women how to live in accordance with the will of God, and he never

deviates from it 28.

Chance and Natural Selection

This chapter concludes with a brief return to a point discussed before. The inherited variations which are the raw material exploited by natural selection are almost universally held to be 'random', unrelated to any predetermined end. The point that Darwinian enthusiasts who take this view miss disastrously is that this conclusion may be unexceptionable, entirely justified, proof against all contrary arguments _ provided only that the 'predetermination' refers to *causes within the order of nature itself*, i.e. coextensive with what supplies scientific evidence. The analogy of an author and his creative work surely demonstrates this. Dostoevsky introduces a chance meeting into one of his novels _ and it is a case of chance, pure and simple, unchallengeably so, and no one can deny it! But step outside the novel, and Dostoevsky has *deliberately chosen it*, and then woven it into his story. The force of this argument can only be met by showing that the author analogy is invalid; Darwinian fundamentalists must give reasons for doing so.

NOTES

- 1 Heb.3.7; 10.15ff
- 2 COMMENTARY ON PSALMS Ps.136.7; quoted by R. Hooykaas in CHRISTIAN FAITH AND THE FREEDOM OF SCIENCE (Tyndale Press, 1957)
- 3 Exod.20.8_11
- 4 Isa.66.1, 2b; Matt.11.25_28; Mark 2.27
- 5 cf. Eccles.1.1_11; 3.15. Ecclesiastes draws some important lessons from this cyclicity (3.20; 11.9,10; 12.14); see also Heb.9.27
- 6 Pss.90; 102.22_27 (compare the force of 'days' and 'years' in vv.23,24).
- 7 Derek Kidner, *op.cit.* pp.48ff on Gen.1.11,20,24
- 8 Cf. the REB rendering of Gen.1.21 ('every kind of bird') and the GNB rendering of 11,12,20,21,24.
- 9 Gen.2.7,19
- 10 cf. C. K. Barrett, THE GOSPEL ACCORDING TO ST JOHN (SPCK, 1978) p. 570 The Creed refers to the Holy Spirit as the 'Lord and giver of life'; cf. Job 33.4; John 6.63; Rom.8.2,11
- 11 For the last, see Luke 1.80; Acts 7.23,34).
- 12 Ezek.36.22f
- 13 Rom.5.12
- 14 For the meaning of the primal sin see Appendix V.
- 15 1Cor.15.55,56

- 16 Language can be learned only from others who already know it.
- 17 cf. H. Blocher, *op. cit.*, p.96 ". . . it is our encounter with another which allows our inner life to become aware of itself".
- 18 Letter to J. S. Henslow, 11 April 1833 (THE CORRESPONDENCE OF CHARLES DARWIN Vol.1, Cambridge Univ. Press, 1985)
- 19 Letter to Charles Whitley, 23 July 1834 *ibid.*
- 20 LIFE AND LETTERS OF CHARLES DARWIN vol.III ed. Francis Darwin (John Murray, 1887)
- 21 I owe this illustration to Prof. D. M. MacKay, who spoke however of a mixture of hydrogen and oxygen. A phenomenon formally similar occurs with the 'critical mass' of fissile materials.
- 22 All of these characteristics can be traced in the lower animals _ see W. H. Thorpe ANIMAL NATURE AND HUMAN NATURE (Methuen, 1974); J. Z. Young, INTRODUCTION TO THE STUDY OF MAN (Oxford Univ.Press 1971).
- 23 See also Co1.3.10. There is no suggestion that any morphological or physiological changes necessarily occurred at the same time.
- 24 Rom.7.9,10 NIV; Rom.4.15; and C. E. B. Cranfield, ROMANS Vo1.I p.351 (T&T Clark, 1980)
- 25 Cf. John 9.41; 2Pet.2.21; Rom.3.20. John 15.21b_25 bears strongly on the same theme. It explains the strong antipathy ('hates', v.23) commonly felt to God as *Lawgiver* (note the frequent reference to 'commandments' in this chapter), arising from ignorance of Him (v.21b), and quite 'without cause'.
- 26 Heb.9.27; cf.1Cor.15.56
- 27 Rom.5.19,18,12,14 (RSV and NIV)
- 28 Eccles.12.13,14; Deut.29.29; Rom.15.4_6

'Creation' _ how do we picture it?

[>>back home](#)

The biblical doctrine of creation has often been very hastily defined and as a consequence is widely misunderstood. The naivete of the language of Genesis is opaque to minds accustomed to buzz words and studied profundity. True profundity can afford to be simple, and for the sake of effectiveness prefers to be. Faced with a problem in understanding, a useful strategy is to seek a suitable model in terms of which to think, and one is proposed to illustrate the biblical doctrine. It appears that the idea of evolution may easily find a subordinate place within the Bible's overall teaching.

Darwinism in particular, and evolution in general, are subjects which continue to provoke a continuous stream of comment, some scholarly and some not. A recent example by an able writer on the secularist side 1, illustrates an all_too_common failing of such: the hasty assumption that the biblical doctrine of creation has been adequately grasped and so could be confidently criticized. Thus R.W. Clark refers to the Victorian belief that "living things ... were, *as Genesis maintained*, a pyramid of immutable species" with man at the top, 2 the phrase I have italicized evidently from his later remarks representing his own view and not merely that of the Victorians. The tendency to assume that the Genesis account is so simple and artless that anyone can comprehend it at first glance appears to be very widespread; probably even Darwin himself erred in this direction. It certainly seems probable that compared with the vast amount of time, concentration and devoted energy he gave to the problem of the origin of species, the effort he gave to understanding the Bible was small. In later life he wrote: "...for many years I cannot endure to read a line of poetry; I have tried lately to read Shakespeare and found it so intolerably dull that it nauseated me. I have also almost lost any taste for pictures or music".3 These are disturbing words from a man whom many moderns regard as having unearthed the ultimate clue to man's nature! What had happened to this very gentle and loveable man? The answer seems to lie in a remark of his own: "The habit of looking for one kind of meaning I suppose deadens the perception of another" 4. For unless we happen to have confidential information that, beside the scientific one, there are no other meanings worth bothering about, this remark of Darwin's may be taken as indicating an insidious attitude of mind, ever threatening the dedicated investigator. Great man as he was, Darwin I believe fell a victim to it.

It is one of the theses of this essay that the biblical doctrine has been widely misinterpreted by both believers and unbelievers. Particularly has this been so on the level at which it seems *prima facie* to have implications for science. The understanding of the 'six days' and of the phrase 'after their kind' are outstanding instances of this. Why has it been so? There are doubtless more reasons than one 5. But one is particularly influential at the present time, when buzz words are in vogue and simplicity of speech is not: the style of Genesis is very naive. God works on six days and rests on the seventh. He forms Adam from dust, and plants a garden of lovely and appetizing trees for his pleasure. Adam gives names to the animals; Eve is tempted by a snake and takes the forbidden fruit. Adam and Eve are ashamed when they discover their nakedness and try to hide it with an apron of fig leaves, and so on. Even to a child the narrative evokes vivid and immediate pictures. Now we live in an age when there is an explosion in communication. More writers than ever have something they want to say, and to say

publicly. Means have multiplied for doing so, from books and periodicals to photocopiers and the Internet. Unfortunately not every writer has something worth saying, or can say his piece well, or is free from motives of self_advertisement in saying it. These things, as much as any have resulted in the spread of the style sometimes referred to as 'gobbledegook', rich in buzz words and phrases, exaggerations, suggestiveness, ill_conceived generalities, and bogus profundity; much public material fails here. There are similar phenomena in art and music. But writing for children is different. Children who listen are eager to understand; writing for them must raise pictures in the mind. So children's books must be plain and vivid; 'user_friendly' is the apt term. Now put these two circumstances together: adults often finding themselves faced with important matter too pedantically expressed to convey quick understanding; and children revelling in what is expressed with charming simplicity. Is it any wonder that the idea has got about that what looks naive must be child's stuff, or, if written for adults, suitable only for primitive society? Or that it constitutes a serious challenge for modern thought, or a call to re_evaluate our very existence? Surely not. Yet that this is so is an idea damagingly prevalent _ and often quite false.

This is a sad state of affairs. The truth is, that when an author has something vital to say, the more clearly he can say it the better; and the more masterly his grasp of his subject, the more competent he will be to do so. Add to these qualifications a complete disinterestedness _ a lack of desire to impress or to build a reputation _ and the result is almost a foregone conclusion. This is the clue to the 'naivety' of Genesis, as it is to the 'naivety' of those incomparable words of Jesus, *Look at the birds of the air; they neither sow nor reap nor gather into barns, and yet your heavenly Father feeds them. Consider the lilies of the field . .6.* Both discourses are far_reaching in their theology, and all_embracing in their significance for life. Their very naivety is an index of their greatness and gravity; the influential scholar Gerhard von Rad saw things like this 7.

We return now to the question of understanding the Creation story. Faced with any subject matter outside familiar experience our minds instinctively ferret about seeking for a model in terms of which to think. This isn't necessarily done consciously; sometimes a model springs almost at once to our notice and we hardly recognize it as such. At other times a great deal of laboured thought may go into the process, for a *model* (as opposed to a *metaphor*) is designed to incorporate as far as possible everything we know about the 'thing'; a metaphor is only intended to enlighten some particular aspect. A well_known example of model_making in science (where models are legion) concerns the atom and its structure. Atoms (it was discovered) can emit electrons, minute particles of negative electricity. This was something out of the ordinary; how should we visualize it? Electrons must, of course, be balanced by a positive charge. How are the two related in the complete atom? First came Sir J J Thomson's plum_pudding model, with the electrons as sultanas; then Lord Rutherford's solar_system model, with the electrons as planets; then the Bohr and later models, with the whole thing now highly sophisticated. This was all model_making realized as such, but it illustrates how our minds habitually work, whether consciously or not. There is a sort of inevitability about it; the unfamiliar must be understood (and described) in terms of the familiar. How else could, we live with it?

The Bible's subject matter is no exception to this tendency. Like that other book of God, Nature, it presents us with data on matters outside everyday experience; willy_nilly we propose models to ourselves as we think about them. When it tells us, *God said, "Let there be light"; and there was light*, the imagination sets to work at once. Some may find themselves thinking in terms of 'turning on a switch'. When it says, *The Lord God formed man of dust from the ground, and breathed into his nostrils the breath of life; and man became a living being*, they may possibly picture a clay modeller who lovingly kisses the

little figure to see if it responds; and so on. But it should be clear that the biblical record intends neither of these two human actions as models, as the plum_pudding was intended to be for the atom. The plum_pudding model was dislodged when further study proved it to be inadequate; the surprising thing would be if a *model* wasn't eventually overshadowed. *Metaphors* (such as Genesis is using) have an easier life 8.

So we come to the main point of this chapter. Is it possible, while remaining wholly loyal to Scripture, to devise a genuine *model* which will do justice to our growing knowledge of the event? Let us try. The subject matter is 'Creation', nothing less than the divine action by which the totality of things was brought into being and continues in being. In the Bible the verb 'create' is used only of God and never of man. However, the Bible does tell us, in the very context of creation, that man was made 'in the image of God'. This would seem to encourage us to look cautiously, in our search for something suitable, to what we commonly call the 'creative arts'. Among the creative arts, which shall we choose? The art of the painter or sculptor or architect pass in review, but they seem too static. The art of the composer has obvious movement, but it lacks other dimensions. Perhaps the best would be one we have already used _ the narrative of a serious dramatic writer. This seems possibly the best analogy we can find; for such a 'moving' thing results from the employment of language, the mode used to express God's own creative activity (God 'said', *Let there be*). Language too was a gift expressly and exclusively used with man, at his creation: *God said to them*(Gen.1.28; and 2.16,19,23; 3.9)9.

Firstly, look broadly at the proposal. The serious dramatic writer and the literary masterpiece on which he is still perhaps engaged: are there any fatal objections to entertaining these as representing in terms we can grasp, the Creator and his on_going world? Of course, any model must fall short; if it didn't it would be the real thing 10. This one falls short in that the human 'creator' has little more status than his characters, and this clearly limits it. However, it invites no serious objections for the designed purpose, nor does any better one readily suggest itself. So we will use it.

The model illustrates at once the Bible's insistence _ emphatic but not always easy to grasp _ that the Creator is both transcendent and immanent. This two_sided doctrine constitutes the difference between theism and the rival ideas of deism (on the one hand) and pantheism (on the other). Transcendence? The author is there, before his narrative begins. He makes up his own mind when to start, and what to write, and how to develop his plot, and when to lay down his pen. If he wishes, he can introduce another story, of a rather different sort. Immanence? At every moment in the narrative. conceived as 'now', the author is there writing, and the story lives and moves only as he works. He holds its world in being as he writes; it is the expression of his animated thinking. He's thought it out beforehand, but how it is going to develop may be very largely unpredictable to an imaginary onlooker; the most unexpected things may turn up (just like the butterfly's wings effect in Chaos Theory).

Secondly, this model stresses that the Creator inhabits a sphere dimensionally richer than the one he has created (and now, incidentally, holds in being). Something similar is true of a human *artist*. In painting a picture of a landscape say, one of the three dimensions of his own living and working space is surrendered. The 'distance' dimension his viewer must supply by unconscious suggestion. An *author* writes a book; the reader this time, in a similar way supplies the dimensions of space and time to the static printed text. At this point we may further add that the space and time in which the narrative's action moves bear no necessary relation to those in which the author was actively at work; science fiction should have made that plain enough. To change to a musical analogy: Mozart wrote his last three symphonies in six weeks, but this period bears no relation to the time

of their actual performance.

All these things taken together seem to allow that we are not compelled to interpret the 'six days' of creation as necessarily periods of everyday time or even of cosmic time long or short, though we may still choose to do so if that makes the best sense. It seems to the present writer that the 'six days' ceases to be an insuperable problem once this 'creative artist' model is accepted as a reasonable one.

Thirdly, the author model makes sense of *creatio ex nihilo*. For a human author, to be sure, such *creatio* is only doubtfully possible. Man can (arguably) create only from materials drawn from his own given experience, but even so his creative powers — witness mathematics and music — are wide enough. But we need suppose God subject to no such limitation. In the sense in which the term is used in biblical theology, *creatio ex nihilo* is certainly not a nonsensical idea.

Fourthly, the model we are discussing seems to do a considerable degree of justice to the biblical notion of time. The world is neither static, nor is it something cyclically never_ending. It manifests a historical process; time has an arrow on it; things are moving to a consummation. It is, in fact, a 'story'. Further, without reverting to the cyclical idea, it provides that the world can still be a created thing even if it is infinite in time, and in both directions. There is no reason why the eternal Author should not have always been writing, or should ever intend to stop. On biblical grounds one might say that he has started a story which he will bring to a climax, and then begin a sequel in a new setting; but the point I wish to make is that the analogy shows that the biblical idea of creation does not stand or fall with the triumph of a theory like the Big Bang Theory of Gamov (1946) over one like the Steady_State Theory of Bondi, Gold and Hoyle (1948). God remains Creator whatever sort of theory is finally validated. This is a conclusion which (anachronisms apart) was long ago emphasized by Thomas Aquinas (c.1225_1274). One other important consideration relevant to time remains: the Bible's teaching that God both finished his creative work and yet continues it. Clearly, we can accommodate this by supposing that our author first sets the scene and introduces the *dramatis personae*; after that, the story (that is, history) may proceed.

The final point of correspondence between the author model and the biblical doctrine is an important one. It concerns the impropriety of speaking of a 'mechanism' of creation 11. We saw that the Bible never does so. It does not associate the act of creating with any material process in space_time. In so far as it is right to speak of a mechanism or process associated with creating, everything must be regarded as taking place within the divine Mind. Then comes the Word, and the Creation is there. What better illustration of this could we possibly have than authorship?

So we come to apply our model to ourselves: how did mankind arrive on this earthly scene? Was it by evolution or by creation? For concreteness, we may think of our favourite novel, maybe GONE WITH THE WIND, WUTHERING HEIGHTS, or DAVID COPPERFIELD. We open the book at (say) page 291. We encounter the principal character, mature and purposive. How did he get there? For answer, we turn back the pages one by one till we find him uttering his first infant cry. Then we retrace the vicissitudes by which he grew up into manhood, the absorbing story of his adventures, his development as a character, and there we have it. But there is another approach beside this, one that is really more fundamental. He was conceived by an author, he developed in a fertile mind, he became the central figure in an on_going story. Our hero is an author's creation, *wherever we meet him* 12, from his first appearance to the climax. That is clearly the ultimate answer to the question: Where did he come from?

Were it not for an author, and for the act of writing, there would be no story, and no hero to enquire about.

Does this help? Turning back to our main concern, I put the question to the man or woman who cannot ignore the biblical testimony, and yet who in honesty feels that Darwin has a case. I think it does help; in fact, I believe that the 'author model' solves completely the relational antipathy between the biblical account on the one hand and the findings of science on the other. Naturally, its success turns on there being a divine Author, One possessing 'dimensions' of existence inaccessible to His creatures: If we believe in the God of the Bible this means that there is, and everything we have been discussing makes sense.

Of course, my argument hasn't proved that there is a Creator God. I gladly acknowledge the strict limitations of being human; the Bible itself declares that *the just shall live by his faith* (Hab.2.4). But then neither can the opposing view be proved; Dawkins, Atkins and Dennett would, I expect, agree that their confidence lies rather in the *faith* that the human mind *is* the measure of all things (see e.g. THE BLIND WATCHMAKER, pp.14, 316f). "We can understand our cosmic existence well enough without the hypothesis of God", I can hear them saying; "it is 'superfluous' [*sic*] so why introduce it?" (main quote mine). Up to a point we can agree; our cosmos *is* absorbingly interesting and it can occupy us full_time without our bothering about an Author; with most of our best stories the author is dead and gone. But at this point our analogy leaves us in the lurch. For we are not merely readers of the story, able to examine it as complete outsiders; we are characters in it, and the Author of the story, the Bible says, made us for Himself, and has revealed Himself to us in it in the human form of Jesus of Nazareth. From heaven He now addresses us. We may turn a deaf ear if we can; but in the end we shall have to appear before Him. Is this a point of no importance to which we can calmly reply "I couldn't care less; the story makes perfectly good sense to me already"? 13 Hardly. A book comes to an end with its last page; if the Bible is right, our existence, as individuals or as a creaturely race, doesn't. We shall all appear before the great Author, for *it is appointed unto men once to die, but after this the judgement* 14. That is why the issue we have been discussing is such a momentous one.

The analogy of an author will be carried further in the next chapter.

Postscript

It is worth quoting the opinion of a great German Professor of Theology 7 about the Genesis account of the Fall of man;

"As regards the creative genius of the *Yahwist's narrative* there is only admiration. Someone has justly called the artistic mastery in this narrative one of the greatest accomplishments of all time in the history of thought. Wonderful clarity and utter simplicity characterise the representation of the individual scenes". "This is anything but the bluntness and naivete of an archaic narrator. It is, rather, the candour and lack of hesitation which is only the mark of a lofty and mature way of thinking". . "Its simplicity, however, is not archaic, but rather the highest command of every artistic means." (see chap. III ref. 36, pp. 25,26,98)

[*'Yahwist'* is the name given by liberal scholars to the presumed author of this part of Genesis. Prof von Rad could not be accused of being a 'raw fundamentalist!'].
NOTES

- 1 Ronald W Clark, THE SURVIVAL OF CHARLES DARWIN (Weidenfeld and Nicolson, London, 1985)
 - 2 *op.cit.*, p.5
 - 3 Autobiography, p.114
 - 4 Quoted in a letter written (1884) after his death, by Frances Julia Wedgewood to his own son Francis Darwin _ see R.W. Clark, *op.cit.* p195
 - 5 For instance, the widespread acceptance of the notion of the fixity of species probably owed a lot more to the influence of Plato and Aristotle than to the Bible _ see Michael Denton. EVOLUTION: A THEORY IN CRISIS (Burnett Books, Hutchinson, London, 1985)
 - 6 Matt. 6:26ff; cf. also Luke 10.21
 - 7 Prof. Gerhard von Rad died in 1971. Extracts (see Postscript) are from Eng. trans. of his *Commentary on Genesis* (London, SCM Press, 1961)
 - 8 The Bible does speak of the potter and the clay (in a different context, Isa.6.48; Jer.18.6), but again as a *metaphor* , not as a model. A metaphor remains limited in its scope; a model is designed to accommodate as much as possible of its object. That is why the model (unlike the metaphor) must 'grow' as knowledge grows.
- It is worth remarking that the same verb (*yasar*, form, Gen.2.7) is used as a metaphor for the divine activity in Amos 7.1, where God is 'forming' locusts, apparently out of green leaves by the normal processes of biology.
- 9 The reader will find many suggestive thoughts in Dorothy Sayers, THE MIND OF THE MAKER (Methuen, 1942).
 - 10 As would a full_scale operative model of a locomotive.
 - 11 If the idea of 'mechanism' or 'method' (theologically speaking) belongs anywhere, it belongs to Providence. Biological evolution may be the method of Providence, but it is not that of Creation. See further, Appendix III
 - 12 This phrase is important, cf. Ps.51.10; Ecc.12.1; Isa.4.5; 1Pet.4.19
 - 13 cf Dawkins (Preface, THE BLIND WATCHMAKER, 1986): "This book is written in the conviction that our own existence once presented the greatest of all mysteries, but that it is a mystery no longer because it is solved. Darwin and Wallace solved it . . ."
 - 14 Hebrews 9.27 AV

"Let us hear the conclusion of the whole matter" (Eccles.12.13) >>[back home](#)

What is the ultimate truth about our existence? Two views are locked in mortal conflict in the West: "Chance *alone* is at the source of every innovation, of all creation in the biosphere. Pure chance, absolutely free but blind, at the very root of the stupendous edifice of evolution: this central concept of modern biology is no longer one among other possible or even conceivable hypotheses. It is today the *sole* conceivable hypothesis" (Nobel laureate Jacques Monod, in CHANCE AND NECESSITY); and, "In the beginning God created the heavens and the earth"; "All things were made through Him" _ the Word, Who came in the flesh as JESUS CHRIST. Which shall we choose?

In this summing_up we have to compare two quite incompatible views about the essential nature of our human existence. The first, which I have called 'Darwinian fundamentalism', is energetically and ably publicised by such well_known writers as Richard Dawkins, Peter Atkins, Daniel Dennett and many others, including of course the late Jacques Monod; the second has been the one held traditionally for ages by many ordinary men and women. The first implies that (in the *ultimate, rock_bottom* sense) existence comes to us all solely by 'chance' and thus as something empty and meaningless: we ourselves have each to devise a content and meaning for it as best we can before we descend into final oblivion. The second is that life is a gift from a wise and gracious God, a gift for whose use we must one day render an account _ and receive (or lose) an everlasting reward. The 'selfish gene' is the 'agency' named in the first (see RIVER OUT OF EDEN, pp.131,133); JESUS CHRIST the divine Agent in the second (John 1.1_5; Co1.2.9). Here is a great divide; it is clearly vital that we get our thinking on the right side of it. For clarity, I will first recall the biblical teaching on some main items, and in doing so relate them to what corresponds in neo_Darwinism.

Has man descended biologically from an animal stock?

On the 'natural' or 'physical' level (i.e. one based on what could have been, in principle, recorded on video), the Bible does not rule this out. Man's 'formation' [*sic*] from 'the dust of the ground' was linked, on the sixth day, with that of the land animals, and it is described in almost identical terms (Gen.2.7,19). It is only when the Bible speaks of his 'creation' [*sic*] that it brings in 'the image of God', unique to man (1.26). Together with the 'inbreathing of the breath (Heb. *nesama*) of life' (2.7; cf. John 20.22), this points to something over and above mere animal existence, (a sort of spiritual 'software'?), the act of inbreathing being something not accessible to video_recording. It was doubtless something non_physical, like Paul's 'inexpressible' experience in 2Cor.12.2f, or Satan's unseeable entry into Judas (John 13.27). Such things are quite outside the cognizance of science. So my answer to the question heading this paragraph is, "Yes, quite possibly; but nevertheless, there is a deep_seated, profound difference between man and the animals". The discontinuity is of a type paralleled by what the New Testament calls the "new birth" (John 3.3-8 NIV; 2Cor. 5.17 NIV), an experience claimed a little light_heartedly by many today. However, the two are not to be simply equated.

Physical genetic continuity may have extended right back to the most primitive organisms: the biblical record does not positively rule this out either, nor even that there may have been primitive life elsewhere in the universe.

Were Adam and Eve a solitary pair?

I believe the Bible allows us to conclude that Adam had 'collaterals' (of whom Eve was one), who became fully human as, following him, the 'image of God' was imparted to them also. The formation of the human race from Adam may have followed a pattern to which Abraham's fatherhood (Rom.4.11,16; cf. Gen.17.10,13), and the building of the church on Christ (Matt.16.16ff; Acts 10.44ff; Rom.8.29) both conformed. Many of Abraham's 'collaterals' for instance were incorporated with him into the nation he founded; and the same Hebrew pattern of one key figure singled out at first is also present in a miniature way in the appearance of the Risen Lord to the women; see John 20.1, followed by the 'we' of v.2, and finally, the many of Luke 24.1-10. I would not insist on this exegesis of the biblical record, but I would maintain nevertheless that it is a reasonable one and demonstrates that the biblical and scientific accounts, where they overlap, cannot be regarded positively as incompatible. That man may have arisen in Africa and from there moved to the Near East is comparable to other instances in the Bible (Gen.2.8 NIV; 12.1,2; Isa.41.8f).

The nature of the Fall, and the problem of suffering

The nature of the sin of Adam and Eve was not bound up essentially with sex, as some have suggested. It consisted rather in their presuming, in the face of the divine instruction, their ability *to decide for themselves* what was right or wrong, good or bad for them. That was the significance of the act symbolically described as *taking and eating* (as a 'human right') *the fruit of the tree of the knowledge of good and evil*. By this casually disobedient, self-pleasing act Adam and Eve forsook unconditional obedience to God their Creator; henceforth they would, at least sometimes, make up their own minds about what they did (contrast Luke 22.42; John 8.28,29). God's reaction to this was to allow them (in measure) to learn the consequences of their self-chosen direction; *He gave them up* to find out what would inevitably follow (note Ps.81.11,12 and Rom.1.22,24,26-32). That, the Bible says, is the answer to the persistent demand "Why does God allow all humanity's suffering?" He is permitting men and women to have their own way (as the majority still do), till they learn alas! through bitter experience, its folly (as the Prodigal Son did - Luke 15). Wise parents may still follow the same line with rebellious and self-willed children, (and the more loving and concerned the parents are the more they themselves suffer pain as a result). Disobedience to wise and loving moral directives has of logical necessity painful ethical consequences, just as fooling near the edge of a cliff (in spite of 'Danger; Keep off!' signs) has painful physical ones. This is precisely what the Bible is implying.

Man turns to Reason: the quest for the Absolute

As a result, man struggles inevitably with the consequences of the moral autonomy that he had presumptuously assumed, and which for his own good has for the present been conceded. Still a rebel, he turns hopefully to Reason to think out a way forward. Reason must, he realises, employ sound logical principles; but what are they and where can they be found? These are by no means trivial questions; enormous efforts have been made in the history of thought to run them to ground¹. Do they just float about eternally in some imaginary hyperspace like Atkins' "dust of structureless points" waiting for a Universe containing rational creatures to turn up and want them? Or do they only then come into existence? Would they be the same in all other possible universes? These might be dismissed airily as "vacuous existential questions"²; but many thinkers would heartily disagree. Most would affirm that 'sound principles of logic' *would* be the same in all universes, having the fundamental property of *perfect self-consistency*, of having no in-built contradictions. Here then is an important clue to their whereabouts; is there any

connection we can name in which such self_consistency is an absolutely fundamental thing? Yes indeed. In an earlier chapter the Bible's emphasis on the *righteousness* of God was noted, a stress foreign to other contemporary religions. The 'righteousness of God' has long been understood in exegetical circles as God's changeless self_consistency. *He cannot deny Himself* (2Tim.2.13 RV); *He cannot lie* (Titus 1.2); His *righteousness endures for ever* (Ps.111.3); *Jesus Christ, the same yesterday, today and forever* (Heb.13.8) are typical expressions of this³. Here, long before the present arguments with Darwinism arose, it can be claimed that those vital logical principles had been firmly run to ground. Belonging unarguably to the realm of *mind* (rather than matter), they existed eternally in God. Is not this an answer to the problem of the Absolute for thought far more acceptable than blind chance toying with "a Borel set of points" floating around no_where? ⁴.

Has human Reason any limits?

We come now to another pressing matter: are there any vital questions irresolvable by the human mind? "Yes", says the Bible, there are: *The secret things belong to the LORD our God, but those things which are revealed belong to us and to our children for ever* ⁵. "No", say many Darwinian fundamentalists, "there aren't". Richard Dawkins' own 'aside' ("Yes, but we're working on it" ⁶) is one such occasion; and listen to Prof Atkins:

"I shall take your mind on a journey. It is a journey of comprehension, taking us to the edge of space, time, and understanding. On it I shall argue that there is nothing that cannot be understood, that there is nothing that cannot be explained, and that everything is extraordinarily simple"⁷.

Ten years later he writes:

"I do not budge from the view . . . that the human brain is an instrument of *limitless* power and . . . the scientific method (permitting its cautious development), a technique of *limitless* applicability and (speculatively) *limitless* success". ⁸ (my italics).

His colleague Dawkins agrees ⁹. However, in spite of this the latter also writes that man is merely "a robot vehicle blindly programmed to preserve the selfish molecules known as genes . . . which neither know nor care" about anything ¹⁰. I find these combined remarks astonishing, for the human brain evidently had powers comparable to those it now has aeons ago ¹¹; Atkins himself fully acknowledges this. How then did "genes which neither know nor care" manage to produce offspring capable of handling advanced mathematics ages before this could have been of any obvious use to their robot vehicles? Man probably had acquired a brain able to deal with quadratic equations millennia before symbols like *x* had even been thought of; do they really think the careless genes¹³ were responsible? "The process of natural selection which produced skills like swinging to the next bough for fun had a *non_linearity* about it, you know; you'll find it all explained by Chaos Theory", they might reply ¹². Really? I am afraid that many (like myself) would have to plead guilty here to a bad attack of Dawkins' despised weakness – personal incredulity ¹³.

Reason again: What about randomness?

Darwinian fundamentalists have claimed confidently in an offhand way that the mutations offered to natural selection are 'random'. In view of the fact that their whole position hangs heavily on this slender thread, it is essential to ask what they mean by 'random'. Prof Dawkins writes clearly enough:

"It is only if you define 'random' as meaning 'no general bias towards bodily improvement' that mutation is truly random", he says.

Again,

"Mutation is not systematically biased in the direction of adaptive improvement, and no mechanism is known (to put the point mildly) that could" make it so 14.

What about Prof Atkins? He says that the fluctuations in the "absolute void" (without matter, energy, space or time) giving rise to our universe were "by chance", "absolutely without intervention", "unmotivated", "no purpose" 15. Prof Dennett in his DARWIN'S DANGEROUS IDEA 16, (a book his friend Dawkins regards as "surpassingly brilliant", "where critical . . . devastating", and "positively inspiring"), has in his Index twenty-four references to 'randomness', fourteen more to 'chance' and another eleven to 'luck'; but nowhere in its 550-odd pages is there even an elementary definition of what he means by these terms. This is an otherwise impressive book, but it is empty here about this supremely critical matter. Its treatment is quite farcical; see the Postscript to my Chapter XII.

These far-reaching claims about 'randomness' and 'chance' are in fact pure guesswork or mere wishful thinking. The eminent mathematical physicist Prof Paul Davies 17 has written, with careful substantiation, that it isn't possible in general to prove that a string of digits is random. What *might* be proved is its *non-randomness*; all this needs is the discovery of a suitable 'algorithm' (a mathematical recipe) to generate it. But alas, there is no certain way of finding out if there is one; an algorithm may always be lurking hidden round a corner! So the assumption of 'randomness', even in a simple string of digits, may turn out against all appearances to have been wrong (the expansion of *pi* offers good examples). There is every reason to believe that something similar holds for a string of events. But the problem before us here springs from a level far deeper than this. What we are concerned with is the question "Is there a Mind behind things with thoughts *in principle* *inaccessible* at will to us?" (cf. chap. II, n31). If there is (as the Bible says there is, Deut.29.29; Ps.77.19), then we can *neverever* know that mutations are truly random, due to pure no-nonsense chance. And this is what Dawkins, Atkins and Dennett light-heartedly build their *whole case* upon! Especially is it important to remember this when what they oppose is an instinct strong, ancient and almost universal, some sort of divine Creation; and when in addition what is threatened are such profoundly precious things as meaning and hope. There is a shallowness in their ultimate foundation here which Darwinian fundamentalists must come to terms with.

The significance of the choice

Of the two choices as the final origin of all things (a divine Creator, or Chance), the former has vastly more potential significance; for one thing it would suggest that man is subject to moral law as well as to physical. The Bible certainly insists on this: *All things are naked and open to the eyes of Him to Whom we must give account; We shall all stand before the judgement seat of God* (Heb.4.13 NKJV; Rom.14.10f RSV). The decision we make on the present issue is thus, in the Bible's view, a fateful one, not something of which we can lightheartedly say, "Well, everyone to his own fancy!" It is noticeable that Darwinian fundamentalists seem to hold very loosely (if at all) to any absolute distinction between the ethical categories of right and wrong 18. As with the principles of sound logic, it is difficult for them to run either of these two things ('right' and 'wrong') to earth, since *mind* (not matter) is the obvious locus for both, at least most people would think so;

and this could hardly be acceptable to them. The biblical position in both cases is however straightforward and clear¹⁹.

Reason perplexed: how can we comprehend the whole thing?

When we have such a tremendous and complex situation to understand as our creaturely existence in a Universe like this, it is worthwhile trying to think of some suitable analogy with which to compare it (though we must remember that all analogies have limitations and must not be pressed beyond their close parallelisms). What about a great realistic novel like Dostoevsky's *THE BROTHERS KARAMAZOV*? This is one of the greatest novels ever written, and Dostoevsky "has become the Russian writer most widely read and influential in England" ²⁰; but any other great novel will do as well.

All through the tale unexpected things happen in unexpected ways, sometimes 'randomly'. How they are woven together constantly excites admiration. Great novels like this start with no prior indication of where they are going; 'chance' plays a great part in them (who meets who, and in what circumstances); individual character is often centre_stage; repeated patterns occur (love, marriage, and family life); and so on. As the story proceeds, it proceeds of itself. When we come to the end, things which were a mystery are a mystery no longer. The story has run its course realistically. Unpredictable as a whole, there were nevertheless many occasions when the expected did happen.

Now all this raises some interesting points. A novel like *THE BROTHERS KARAMAZOV* can be appreciated without knowing who the author was. There is no sign of any "authorial intervention" in it, even of an author exercising a "supervisory role", or "master_minding" it, to use Dawkins' phrases ²¹. The story makes perfectly good sense by itself; its developing action is "self_explanatory". In all these ways, Dostoevsky's story runs in similar tracks to the fascinating history of our Universe as the neo_Darwinians think of it. Why do they not conclude also that Dostoevsky may be a mythical figure then, quite "superfluous"? To put it another way, if our Universe could have originated by chance (as fundamentalist Darwinians claim), a realistic novel could also have done so. It could conceivably have appeared in a large colony of monkeys shut up with some typewriters say, even if the probability is infinitesimal. "This is utterly ridiculous", I can hear an opponent saying: "the probability of even a hundred thousand monkeys producing a tale like *THE BROTHERS KARAMAZOV* by chance in their few brief years is the craziest suggestion ever made". I might agree, even if the monkeys were allowed to breed for a hundred thousand years as well. "Darwinism's 'chance' would have natural selection to help it as well ²²; the monkeys would have nothing equivalent to match. A novel's author understands the laws of history too, and this helps him shape his plot; monkeys have no comparable brain power". Yes, these are two highly significant objections to the parallel I have raised. But 'natural selection' only goes back as far as the first appearance of living things, when the Replication Bomb went off ²³; beyond that the 'laws of nature' we now count on only reach further back still to the Big Bang. How likely to have appeared then was the "exquisite adjustment" ²⁴ of the great physical constants necessary to make the whole expanding cosmos vastly_later a home to welcome life? And what was the probability even before that of something to cause the Big Bang itself? If still another question has any meaning, was there anything to raise the probability (above absolute zero) of Prof Atkins' "really nothing . . . a Borel set of points not yet assembled" founding by chance the entire theatre of Spacetime and matter? ²⁵. It is the multiplied 'improbabilities' of all these 'chance' happenings, each awaiting the one before that has to be compared with the monkeys' frolics on typewriters. I personally would still put my bet on the monkeys. To summarise: if it is unacceptable to view a great novel as a mass of separate letters thumped by chance (given innumerable monkeys, aeons of time,

billions of typewriters, etc., etc.), it should be unacceptable also to imagine our ordered and life-bearing cosmos arising from imaginary structureless dust (of Borel sets!) thrown together by chance _ this time given no mind to do the initial imagining nor a hand to do the throwing, etc., etc. (I hope my opponents will regard all this as friendly but nevertheless serious leg-pulling.)

I strongly recommend any reader with the time to do so to get Atkins' two books and to satisfy himself that I have quoted him (and by implication, Prof Dawkins) fairly: I have genuinely tried to.

Is the analogy of THE BROTHERS KARAMAZOV reasonable?

The claim that a great, well-crafted and true-to-life novel is a valid analogy for the story of our Universe can clearly tell strongly against the atheistic case. It can be easily defended on biblical premises of course. First, both the novel and the cosmos come into being through the use of *words* (spoken, Gen.1.3; Ps.33.6,9; or written, Exod. 31.18; 1Cor.14.37). Second, like the divine Author, a human author fashions his novel as he wills: he *transcends* it. Yet he is *immanent* in it too; the story as it unfolds necessarily bears his imprint. His transcendence and immanence correspond in miniature to God's. Third, living men and women have 'free-will': they can influence current history as God's fellow-workers 26 or not. In a novel there is a similar thing. As Dorothy Sayers (herself a considerable author and playwright) remarked, "the free will of a genuinely created character has a certain reality, which the writer will defy at his peril". If he does so, his narrative loses authenticity (Mr Micawber at the close of DAVID COPPERFIELD is a case in point 27; I owe a great deal here to Dorothy Sayers). Of course, a human author's characters cannot oppose his will in a fully *independent* way; living men and women can and do oppose the will of God *ofthemselves*. The grounds for this latter difference involve the 'higher dimensionality' of God's Being compared with man's; it has already been noted in connection with the 'double agency' so often figuring prominently in the Bible 28.

Finally, and of supreme importance, an author is *sovereignly responsible* for everything that goes into his story 29. This does not mean that Dostoevsky was a blameworthy confederate in the evil practices of the eldest Karamazov brother of course; neither does it mean that God was similarly implicated in Judas's act of betrayal (Acts 4.27,28). Both the eldest Karamazov and Judas had perfectly 'free wills' in the sense we all accept; their evil acts were of themselves. I do not pretend that we are not out of our depth here; there is great mystery involved. But the difficulty of reconciling such 'double-agency' is not one which confronts the biblical theist only; it has already been pointed out (chap. III, and its note 11) that the secularist faces a similar thing too. *How can man's 'responsible free will' be reconciled with the physico-chemical machinery of the brain?* Theism's profounder 'dimensionality' opens more explanatory doors for the theist than mere 'quantum indeterminacy' does for the secularist.

I believe these considerations justify the conclusion that the 'author' analogy for history is here a sound one, despite its limitations.

To what judgement should this lead us?

The Preface to THE BLIND WATCHMAKER begins (p. ix): " . our own existence once presented the greatest of all mysteries, but it is a mystery no longer because it is solved. Darwin and Wallace solved it . "

What would Dawkins think if someone spoke similarly about Conan Doyle's famous novel THE HOUND OF THE BASKERVILLES? "What once presented a great mystery was a mystery no longer because it was solved; Sherlock Holmes solved it". Would this make an author behind it all "superfluous" too? Yet that is the sort of thing he is suggesting (*ibid.* p.316).

"A fever of excitement"

A very common trouble today (even among deeply religious people) is that 'their god is too small'. The God of the Bible is *sovereign over all*; if anything happens in nature He is the doer of it (Jonah1.4,17). He is sovereign too over history (2Chron.36.22f; Acts17.26f; Appendix I_iii). One of the great disappointments in reading an author with such a gifted mind as Prof Dawkins is that he sometimes commits himself in a self_confessed "fever of excitement" 30. The biblical doctrine of God the Creator is widely held today even within bodies like The Royal Society, and any critic should make sure he properly understands it before he writes in such a fever. Dawkins writes of it: 31

"This is the theory that life was created, or its evolution master_minded, by a conscious designer. It would obviously be unfairly easy [*sic*] to demolish . . . the Genesis story . . . [which] . . . has no more special status than the belief of a particular West African tribe that the world was created from the excrement of ants".

He goes on to speak of God being

"smuggled in by the back door", of "being allowed some sort of supervisory role. . . or even meddling more comprehensively in day to day events",

and continues,

"We cannot disprove beliefs like these, especially if it is assumed that God took care that His interventions always closely mimicked . . . natural selection".

All this from one of his academic distinction certainly sounds like something written in "a fever of excitement". It fails to recognize the profound difference between the *deism* it expresses and the *theism* overwhelmingly the emphasis of the Bible³². It is like suggesting that an author has "been smuggled into" the history of his own book, that he is "consciously master_minding" his own writing, "giving himself a supervisory role in it", "meddling comprehensively" or taking care that his "interventions" always "mimicked himself". As a Professor of Public Understanding of Science Dawkins is letting his own side down badly! I myself have studied carefully his own 'gene's_eye view' (actually with considerable sympathy) to avoid (I hope) unjust misrepresentation; but Prof Dawkins appears to have ridiculed the biblical doctrine on trivial impulse. The 'selfish gene' account rightly focuses on *mechanism* and its *physical adjuncts*: the biblical account focuses on the *purpose* and *beneficence* of the Creator. A single purpose has choice of a variety of mechanisms, and a single mechanism can serve a variety of purposes; they do not define one another. Prof Dawkins' comments as a consequence are a let-down; they display little but personal antipathy. Denying *purpose* as they do abolishes *hope* as well; one should think more thoughtfully before pressing one's own "blind faith" in Darwinist fundamentalism on others and risk plunging them into hopelessness and despair. Listen to this from his friend Prof Atkins, introduced by Dawkins to his own readers with approval:

"We are the children of chaos, and the deep structure of change is decay. At root there is

only corruption, and the unstemmable tide of chaos. Gone is purpose; all that is left is direction. This is the bleakness we have to accept as we pore deeply and dispassionately into the heart of the Universe" 33.

Was it poring "deeply and dispassionately" into such a prospect that caused his "fever of excitement"? In many ways that would seem a strange reaction for a 'deeply dispassionate' thinker. I speak for many who honour the Bible, when I say that we aim to assess the 'gene's_eye view' with thoughtful interest, and can go quite a long way with it. Certainly, mechanism *is* of absorbing interest. There are however questions which concern us far more, for we regard life as a *gift*, to be received gratefully from a Giver; further, *eternity* has great significance for us too. We thank God that (here in Genesis) He has given us His answers, and given them to us in concise, 'user_friendly' and enduring style 34. As for mechanism itself, the Bible reassures us satisfyingly, that *God works all things after the counsel of His own will* (Eph.1.11).

Now abideth faith, hope and love, these three" (1Cor.13.13)

We must now for a moment discuss what the Bible means by 'faith' as many seem to be confused about this. In an important experiential sense common to us all, 'faith' has priority among 'these three'. Does any sensible man marry a woman if he has no *faith* in her, even if he is madly *inlove* and *hopes* he will be happy? That is the aspect of things Paul is talking about. Dawkins is thinking rather about whether the object of faith is an actuality and not just a figment of the imagination; I will speak more about that aspect in a moment. But in connection with Dawkins' main interest, biblical faith does have some purely propositional content: it has statements about actuality to be *believed*. In that sense, *the demons also believe, and tremble* (James 2.19). But it towers above this elementary level. It is far more importantly the response of trust and obedience towards a Person: *Abraham believed God* (Gen.15. 6) ; *faith towards our Lord Jesus Christ* (Acts 20.21; 26.19); *I know whom I have believed* (2Tim.1.12). It is not concerned primarily (as it is in science) with sense evidence publicly available to all; indeed the latter aspect, while valued, is placed considerably lower in the scales (John 4.48; 20.29; cf.11.25_40). The great New Testament chapter on faith (Heb.11) makes all this plain. 'Doubting Thomas', Dawkin's admired paradigm, is wrongly named: he didn't say "I *can't* believe" but "I *won't* believe" (John20.25); Dawkins forgets this. He glories in science (rightly I think) because it builds on evidence "accessible in principle at will to man as man": but he must face the fact that such evidence dries up sooner or later as he goes backwards in time. What does he do then? His ultimate bedrock foundation would have to become something like his friend Prof Atkins', who has to believe that *concrete reality has materialized of itself out of absolute nothingness* (see refs. 7,8,9). But this is, *by very definition*, beyond the pale for science, will or no will! It's no good replying that significant pairs like +1 and -1 (say) can result from 'absolutely nothing', because +1 and -1 are not concrete realities (like matter, antimatter and radiation, let alone space and time), but only abstractions of the mind - and (quite incidentally) on his view of things there was at the very beginning no 'Mind' for them to be abstractions of (if my grammar can be pardoned). If Dawkins now disagrees with Atkins in what I have attributed to him, he should publish his own alternative view quickly; otherwise his position collapses in confusion.

The foundation of thoughtful faith

Most of our own personal knowledge in scientific matters has come to us through a simple form of faith, i.e. *believing* what we have heard in lectures or read in books. We did so because we decided that our sources were people we felt confidence in. 'Doubting

Thomas' could have reacted responsibly in the same way; it was probably pride or pique which led him to do otherwise. Dawkins and his friends seem to be acting similarly. The New Testament reports of the Resurrection of Jesus Christ 35, (probably the most publicly accessible and well_attested of any happenings to an individual in history) are entitled to be taken seriously, and there is no reason now (except an inexcusably rigid Darwinian fundamentalism) for not doing so.

A challenge to Prof. Dawkins

I have referred repeatedly to Prof Dawkins in this essay. This has not been from any sort of personal animosity _ God forbid _ but solely because he has chosen foolishly, unashamedly, and with the widest publicity, to ridicule the faith which centres on JESUS CHRIST (John 1.1_14). Referring *inter alia* apparently to the accounts of the Crucifixion and Resurrection he writes:

"[to] its victims . . . blind faith can justify anything . . . Faith is . . . a successful brainwasher in its own favour . . . a state of mind that leads people to believe something _ it doesn't matter what _ *in the total absence of supporting evidence . . . overwhelming . . . publicly available .*" . "evidence is *explicitly eschewed*"³⁶. (my italics)

With this rather intemperate recital in mind I would like to put to him three or four plain questions:

(1) What is the "*supporting evidence, overwhelming, publicly available*" for the spontaneous origin of time, space and matter from *absolute nothingness*? This appears to be his own "blind faith" held with firm conviction 9.

(2) What is the "*supporting evidence, overwhelming, publicly available*", that mutations for natural selection are "random" in the rock_bottom sense he and Atkins positively demand 15?

(3) He writes, "there is, at bottom, no design, no purpose, no evil and no good, nothing but blind, pitiless indifference. . . DNA neither knows nor cares. DNA just is. And we dance to its music"³⁷. Would he stand by this when he suffers a grave personal injustice or injury?

(4) What rational arguments can he mount against the New Testament evidence for the Resurrection of Jesus Christ, *boldly and repeatedly proclaimed*³⁵, not "explicitly eschewed" as he asserts from either simple ignorance or careless indifference 36?

Biblical faith

The biblical teaching follows such absolutely fundamental pronouncements as Deut.29.29 and Ps.139, which insist on man's creaturely finitude and constitutional limitations. While scientific knowledge is anchored to evidence from the physical senses, that of real faith is anchored to the Word, the Divine Revealer. Thus in fundamental contrast to the former, the latter is available only *to those who will respond in obedience* (Exod.3.12; John 7.17). This is really the Bible's last word on this matter: those who think that by searching they can find out God (Job 11.7) as and when they like are doomed to discover that however far they go, they will never reach their goal.

Postscript _ the Uniformity of Nature

One widely held conviction of Darwinian fundamentalists is that not only has our Universe originated through "statistical fluctuations in absolute nothingness", but vast numbers of others, each with its own particular spacetime and physical constants, have similarly 'happened' 38 (most without the extremely fine tuning of their physical constants required for life to appear). But once any universe has sprung into being, its physical constants seem to remain 'frozen'; their pattern remain fixed over all its time and space. Evidence for this is that in our own Universe the hydrogen spectrum remains recognizable with exactitude when it comes over inconceivable distances and lapses of time. This leads to belief in the Principle of the Uniformity of Nature; 'our own' hydrogen atoms for instance behave exactly the same always and everywhere. With 'statistical fluctuations' apparently frequent enough to produce vast numbers of physically different universes, why should this be so? Here comes a profound distinction: to the secularist, this is simply (at the moment, and it may be for ever) a 'brute fact'; to the biblical theist it is now and for ever one expression of the unchanging faithfulness of God, for His creatures would be hard_pressed if it were not so (if gravity or chemical affinities say, varied unpredictably within human lifetimes). In spite of Richard Dawkins³⁹, *The faithfulness of God* is the Bible's firm answer to such questions as Why is the rainbow always in the sky when there is rain and sunshine? What lies behind the promises about seedtime and harvest, summer and winter and day and night? Why is the moon called the "faithful witness"? and so on 40. While the biblical answer is full of meaningful truth for both mind and heart, the secularist's is empty of anything for either.

NOTES

- 1 For a good idea of this see the numerous articles on 'Logic' in THE OXFORD COMPANION TO PHILOSOPHY ed. T. Honderich 1995 pp.496_511
- 2 RIVER OUT OF EDEN p.97; for Atkins, see 4.
- 3 See chap. II; add also Exod.34.6f; Deut.7.9; Ps.146.6ff; Ma1.3.6; Heb.6.18; James 1.17; and a host of other refs.
- 4 Prof Atkins refers to "a Borel set of points not yet assembled" into a space_time manifold (THE CREATION,p.98); just ideas *then* in a Mind? Whose?
- 5 Deut.29.29
- 6 UNWEAVING THE RAINBOW, Dawkins, p. xiii 1998. His rejoinder was to those who quote Hamlet's "*There are more things in heaven and earth Horatio, than are dreamt of in your philosophy!*"
- 7 THE CREATION, Atkins, Preface 1981 p.119
- 8 CREATION REVISITED, Atkins 1992, here p.3; later, pp.viii,115,125,149
- 9 THE BLIND WATCHMAKER, Dawkins, pp.14, 15, 1986
- 10 THE SELFISH GENE Preface 1976; RIVER OUT OF EDEN pp.131_3. Dawkins *assumes* mutation is 'random'; see the end paragraph of my chap. XIV.
- 11 Thales of Miletus lived from 624_565 B.C.; Anaximander, 611_547 B.C.; Pythagoras, c.582_ ; Plato, c.428_348 B.C.. The brain must have been highly developed long before these. Abraham lived about 2000 B.C. "The first exactly dated year in history is 4241 B.C." (ENCYCLOPAEDIA OF DATES AND EVENTS, English Univers. Press,

- 1968).
- 12 CREATION REVISITED p.119. See further 'Chaos Theory', Appendix XI
- 13 RIVER OUT OT EDEN pp.70,95,133
- 14 THE BLIND WATCHMAKER pp.307, 312
- 15 P Atkins, THE CREATION, p.119; CREATION REVISITED, pp.109f,149. Atkins' "suggestions" have (he believes), come_into_being from "*absolute nothingness*" in terms of space, time and matter. That seems to mean that non-physical Mind must exist prior to all? One reader at least thinks so!
- 16 DARWIN'S DANGEROUS IDEA Daniel C. Dennett 1995. Dawkins' estimate is from the cover. The noted author is trying to prop up a bad case.
- 17 Paul Davies THE FIFTH MIRACLE: The Search for the Origin of Life (Allen Lane, London 1998 p.212): also THE MIND OF GOD (Simon and Schuster, 1992, pp.130,132). The author, an eminent physicist and science writer, is agnostic.
- 18 RIVER OUT OF EDEN pp.131,133; see also the excellent discussions in
HOW NOW SHALL WE LIVE? Charles Colson and Nancy Pearcey, Marshall Pickering, 1999
- 19 2 Tim.2.11_13
- 20 THE OXFORD COMPANION TO ENGLISH LITERATURE Margaret Drabble 1985
- 21 THE BLIND WATCHMAKER p.316
- 22 THE BLIND WATCHMAKER p.317
- 23 RIVER OUT OF EDEN chap. 5
- 24 THE ACCIDENTAL UNIVERSE Paul C. W. Davies *op.cit.* This introduces the interesting but controversial subject of 'The Anthropic Principle': see Appendix X
- 25 THE CREATION, Peter Atkins p.98
- 26 Mark 16.20; Acts 15.28; 1Cor.3.9 etc.
- 27 See THE MIND OF THE MAKER Dorothy L. Sayers Methuen 1941 chap.5**
- 28 See Chap. III on the paradox of "double agency", especially note 11.**
- 29 Exod.9.16 with Rom.9.17; Dan.4.35; Eph.1.11**
- 30 THE SELFISH GENE Preface to 1989 edn.
- 31 THE BLIND WATCHMAKER p.316

- 32 For the distinction between Theism and Deism see chap. II
- 33 From THE SECOND LAW (Atkins) in UNWEAVING THE RAINBOW, Preface p. xi
- 34 For the early significance of eternity see Gen.3.22; 5.24 (cf. Heb.11.5). The remark about 'user_friendly' style is very important too: see Deut.30.11_14; Isa.28.9ff; Hos.11.3f; Hab.2.2 RV; Matt.11.25f; 2Cor.1.13 NIV
- 35 John 20.1_31; Acts 1.3,9_11; 2.32; 1Cor.15.1_8ff. For the "explicit eschewing" of key evidence cf. Luke 24.37ff
- 36 THE SELFISH GENE, 1989, pp.198, 330
- 37 RIVER OUT OF EDEN p.133f. As an answer to the question about an 'absolute' posed here, what about *You shall love your neighbour as yourself?* (Matt.19.19). Does Dawkins deny this is 'absolute', i.e. not just a matter of personal preference?
- 38 This is a widely canvassed 'Many Universes' theory.
- 39 UNWEAVING THE RAINBOW 1998 p.312
- 40 For the biblical attitudes see Ps.89.1,2; and also Gen. 9.12ff: 8.22; Ps.89.37. Unfortunately, the faithful keeping of promises has a low profile today.

A personal testimony >>[back home](#)

I wish to conclude with a brief account of how I came to my convictions about ultimate things _ the things about which Richard Dawkins, Peter Atkins, Daniel Dennett and others have written in such strong antitheistic terms. I do this as an older man, nearer 90 than 80. They are convictions which have only grown stronger over the years. Let me briefly recall them. First, the foundation on which they rest and for which (barring cowardice) I would give my whole life over again, is without hesitation, the person and teaching of Jesus Christ. He is absolutely unique among all the figures who have ever appeared on the stage of human history; He is I firmly believe, what the New Testament declares _ 'God manifest in the flesh'. How did I come to know Him, and to call Him Master and Lord?

It began like this. I was encouraged as a boy to read the Bible daily, and though I very often missed out, I slowly learnt enough to excite my interest and imagination. The Old and New Testaments began more and more to grip me as I read them: the power and coherence of their message, their directness of speech, their relevance to ordinary life, the ring of truth which they had about them. What impressed me especially was a Figure who, long foreshadowed historically in the Old Testament, at first appeared dimly at the very start 1, became progressively clearer and more fascinating through the witness of the great prophets, until eventually He filled the stage in the New 2. I refer of course to Jesus of Nazareth. In the end, something happened to Him which (to hindsight) could be seen to be what the old prophets had long before foretold 3; He was rejected by His own nation 4, betrayed to the occupying power of Rome 5, and executed publicly by crucifixion, perhaps the most brutal and humiliating method ever devised by man 6. Three days later He appeared alive, apparently quite unexpectedly, to His downcast and demoralized followers 7, singly and together. He remained among them as Teacher for forty days, then He took them to a small mountain outside Jerusalem (the Mount of Olives) and in the sight of perhaps the "more than five hundred" of 1Cor.15.6 was taken up into a cloud. He left this very diverse set of men and women quite changed. From being cowards (the men at least) they went out into a hostile world to tell others about Him by earnest proclamation, self-denying labours and often unresisting martyrdom 8. One early result was that within a few months a learned Pharisee named Saul, of Tarsus in Asia Minor, strikingly changed through the experience of a blazing light and audible voice when on a persecuting mission to Damascus, became the gentle and devoted apostle Paul⁹. He left a body of letters to churches he had founded which are without equal in world literature; they still exert an incalculable influence on those who read them. In the end this Paul, after long and arduous missionary labours, was executed by the Roman emperor Nero probably about AD 67. Many of the other apostles suffered similarly.

The account of these things is recorded in language which had always struck me as temperate though heartfelt. Its historical style is natural and convincing, though it has been subject to learned destructive criticism; but it has held its own. Even when it recounted the notably 'miraculous' it has never succumbed to this criticism (see C. S. Lewis's famous essay *Fernseed and Elephants*). The records have survived in extremely numerous papyrus documents (the abundant bibliographical sources of the New Testament) which together meet very strict canons for historical accuracy. They are the writings of men of widely different temperament and character _ the tax_collector Matthew, the young man Mark, the (probably Greek) doctor Luke and the fishermen John and Peter, as well as the scholarly pharisee Paul _ and contain just enough of what is

sometimes a little difficult to conflate to give positive support to their wide independence. Their substance must be essentially of early date; none records the epochal destruction by the Roman Titus of Herod's magnificent Temple in AD 70, (incidentally foretold by Jesus, Mark 13.1,2). As a young man I believed all this for a long time in a purely conventional way; but then things began to change. Through the sort of disappointments, failures, and problems many young men go through I had to look to my foundations, and it was then that Jesus Christ, as a living Lord, became real to me. As a result the whole Bible sprang to life. Especially it was how Jesus Christ Himself had referred to it that confirmed it as 'God speaking to men' 10, and it gripped me so firmly that I have for long read it right through every year, and still do. Of course, my previous understanding of many things changed as I did this: one thing was that of the creation narrative. But it has become to me as a result not less the authoritative Word of God, but more. I believe this conclusion is unaffected by the spectacular rise of the later faith of Islam 11.

The understanding of the Creation narrative

The Bible addresses each successive generation of its readers in a way suited to their *contemporary situation and its immediate demands*. What did the Mosaic revelation then mean to impress on the rude and unstable Israelites when it reported that the world was 'made in six days'? The particular wording of this piece of revelation was chosen, I believe, to teach them to re-fashion their daily living *on the pattern of God's own*, for acting as God does is always the secret of joyful and successful living 12, and imitating Him is the way to proceed. Its choice of words was designed for this end. For this reason the raw and disorganised Israelites were commanded to order their lives on the basis of *a seven-day week: six of regular work followed by a seventh of rest and remembrance* – for this, according to the record given them, would be copying their Maker, and would keep Him, the Giver of their life, always before them 13. It is this same moral and spiritual objective which Scripture as a whole still holds before us today. Moses sums things up in his final parting words to them in words I have often referred to: *The secret things belong to the LORD our God, but those things which are revealed belong to us and to our children for ever, that we may do all the words of this law* (Deut.29.29). The creation account is therefore worded for the express purpose of encouraging Israel to model its life on God's, an objective reaffirmed clearly again in the New Testament: *All Scripture is given by inspiration of God, and is profitable for doctrine, for reproof, for correction, for instruction in righteousness, that the man of God may be complete, thoroughly equipped for every good work* (2 Tim. 3.16) ; and, *Be therefore imitators of God, as beloved children* (Eph.5.114). Any suggestion that the details of physical cosmology were being taught at the same time makes no added sense. It would have been irrelevant to the declared objective, and would only have confused the hearers; they might well have thought, "What on earth are we being told this for?" I take the 'days' of Genesis 1 therefore to be so named to give moral direction, not cosmic information. God is never, after all, the prisoner of time: *One day is with Him as a thousand years, and a thousand years as one day* 15.

That the Creator made a sharp distinction between man and the animals was another vital matter. The creation of the latter is described in broadly similar terms to that of man 16, but in both Genesis 1 and Genesis 2 important additions are made in the case of man. In the first his 'making' is qualified by *in Our image and after Our likeness* (v.26); then he is as a person *addressed and given responsibility* (v.28). In the second, God breathes into his nostrils the breath (*nesama*) of life, places him under *the obligation of moral law*, and gives him the very significant right to *name the animals*. These are great God-given ennoblements, recognized as such in the New Testament 17, and to be accepted with thanksgiving 18.

A far-reaching element of biblical teaching is that God created man to be His fellow_worker 19, a role implying familiar verbal intercourse. Biblically this was usually through chosen spokesmen, the prophets; and as a wise instructor God always did this in words clear and positive; He was never like the Delphic oracle. Many well-known passages illustrate this: the Ten Commandments themselves, and such words as e.g. Matt.6.25_34: 7.7_11: and Isa.55.6_10. If His audience could not comprehend what was spoken to them, it was never for their lack of erudition! His message was never indistinct or trivial; and it came always with aptness for the particular moment 20, as well as for God's future related purposes. I have tried to apply these principles impartially, for they lead on to something more challenging. If God is truly sovereign throughout history, if all His communications are important, and if He still cares enough for the common man and woman, *then the very Bible now in our hands* must be taken as the Word of God for us, our abiding guide for 21st_century life. This conclusion is far different from what some leaders in the western churches now seem to think; a common view is that our hand-held Bible is so full of outmoded ideas, cultural differences, contradictions, copyist errors, and so on that it is dangerous to regard it as still a God-given guide. Even the teaching of Jesus²¹ comes into this criticism: He was but a Jew of His time, it is said, and taught what is now out_of_date. These conclusions I emphatically reject. Copyist and other errors there may be; but I hold the strong conviction that in His wisdom and power, God has providentially withheld anything seriously misleading from gaining entrance; the Bible *now in our hands* is a guide to be trusted. The scholarly critic or the mere dabbler may disagree, but not the earnest enquirer. To think differently is either to deny the Living God His sovereignty over history²², or to regard Him as out_of_contact, powerless or indifferent to the needs and longings of today's ordinary men and women. We have therefore to take our Bible seriously. When we do so, we find that our cosmos faces one of two futures: that of Darwinian fundamentalism _ a bleak, grey and icy darkness for everything; or that of Faith _ a warm, glowing and everlastingly bright newness for those who serve God²³. My language here may have nothing of his flowing rhythm, but Richard Dawkins must recognize that it does have nevertheless the sort of thing he calls "good poetic science"²⁴; I hope he and his friends will come to agree. All that Darwinist fundamentalism offers to offset its ultimate melancholy _ a grey frozen graveyard _ is the fascination of seeing how intricately living things manage their business while they live; and that includes the ugliness of the loathsome parasite, as well as the beauty of the swallow's flight; the blood_lust of the predator as well as the gracefulness of the gazelle. You take it or leave it when you've had enough, and at last you yourself go into oblivion. Prof. Atkins, an able advocate of secular Darwinism, writes:

"We are the children of chaos, and the deep structure of change is decay. At root, there is only corruption, and the unstemmable tide of chaos. Gone is purpose; all that is left is direction. This is the bleakness we have to accept as we peer deeply and dispassionately into the heart of the Universe."²⁵

On the other hand, here is the teaching of JESUS CHRIST: When He returns as King of glory and all stand before Him, He will separate them into two. To some He will say:

"Come ye blessed of my Father, take the kingdom prepared for you."

To others ,

"Depart from me , ye cursed, into the eternal fire."

For what reasons? They are given in Matthew 25.31-46. Whom or what do we believe? JESUS CHRIST or secular atheistic Neo-Darwinism? We must make our choice; it will influence greatly our ambitions and our way of life.

NOTES

- 1 Genesis 3.15, the *protevangelium*
- 2 See the cases of Simeon, Luke 2.25_35; Nathanael, John 1.43_51; Peter, Matt.16.13_20; Paul, Phi1.2.9,10
- 3 For example, Deut.18.15,18; Isa.52.13_53.12; Micah 5.2_5a; Zech.9.9,10 with John 12.12_16
- 4 Matt.16.21_23; Luke 17.25; John 11.27,45_53; see Luke 24.13_35
- 5 John 18.28_19.16
- 6 Mark 15.1_20; John 19.31_37; cf. also Ps.22.1,16,18
- 7 Mary Magdalene, John 20.1_18; Peter, Luke 24.34; Thomas, John 20.24_29
- 8 Acts 2.14_47; 3.11_47; 4.1_22; 7.51_8.3; John 21.17_19
- 9 Acts 9.1_29; 22.1_21; 26.1_32; 1Thess.2.1_12
- 10 For instance: Matt.4.4ff; 5.17_19; 19.3_6; 22.29,32; Luke 4.17_21; 24.25_27,44_47; John 10.35f; 19.28-37
- 11 What about the Koran then? Mohammed came about 600 years after Jesus Christ. Almost from the first he was ready to use arms; before the end of his life (c.632) he subdued Mecca by force, and after his death Islam's spectacularly rapid spread owed much to military power. Jesus called his disciples to follow a very different way of life; see John 10.17ff; 12.20-33; 15.13; 18.10f; Acts 7.59; 20.17ff. With Constantine's conversion (in 312), 'Christianity' (as it came to be called) became popular and the challenge of the life of self-sacrifice faded; the church lost its first love and corruption set in (Matt. 24.3-14; Acts 20.29ff; 2Pet. 2.1f; Rev. 3.14ff)
- 12 Isa.48.17ff; Zeph.3.17. The first question in the famous Westminster Shorter Catechism of 1647 was "What is the chief end of man?" Answer, "To glorify God and enjoy Him for ever".
- 13 Deut.5.12_15
- 14 See also Matt.5.48
- 15 2Pet.3.8. Note the subject matter of the preceding verses.

- 16 Gen.2.7,19
- 17 Matt.10.31; 12.12; James 3.9; cf Gen.17.5; 32.28
- 18 Psalm 8
- 19 Matt.28.19,20; Mark 16.20; Acts 15.28; 1Cor.3.9
- 20 e.g. 1Kings 19.9_19; Acts 9.10_17; 10.1_6
- 21 A number of prominent churchmen today accept homosexuality. But the Bible is definite (see Gen.18.16_19.29; Rom.1.24_27; 1Cor.6.9,10). and Jesus regarded the judgement on Sodom as an historical act of God (cf.Matt.11.22_24 with Matt.5.27_30; Luke 17.28ff; and Rom.1.32). Rejecting the Holy Spirit's witness to Jesus was a sin even worse.
- 22 For God's sovereignty over natural events, see e.g. Ps.89.9, etc. and over historical, Hab.1.5f; Mark 4.35-41 etc., etc.
- 23 Rev.22.1_5
- 24 UNWEAVING THE RAINBOW Richard Dawkins Penguin
- 25 *Ibid.* Preface p. xi

Books recommended for further reading

The literature on both sides is voluminous. The following is a highly selective list of recommended books:

Alexander, Denis *Rebuilding the Matrix* Oxford, Lion Pub., 2001. A very impressive book on 'Faith and Science in the 21st Century'; highly recommended for serious readers.

Blocher, Henri *In the Beginning*, Leicester, I.V.Press, 1984. A luminous and scholarly study of Genesis by a French professor.

MacKay, Donald *Science, Chance and Providence*, Oxford Univ.Press, 1978 A strong defence by an eminently lucid and logically_careful writer; the orthodox, biblical view of God's activity in nature and history.

Houghton, John *Does God play dice?* IVP, 1988. A discussion of the role of 'chance' by an Oxford Professor of Atmospheric Physics and Director General of the Meteorological Office

Hooykaas, R. *Religion and the Rise of Modern Science*, Scottish Academic Press, Edinburgh, 1972 Prof Hooykaas was Professor of the History of Science at Utrecht; a fine introduction to a fascinating subject.

Wenham, John *The Enigma of Evil* IVP 1993; Lewis, C S *The Problem of Pain* London, Geoffrey Bles. 1940. Two telling discussions of a perennially difficult problem

Ward, Keith *God Chance and Necessity* Oxford, One World, 1996 The Regius Professor of Divinity at Oxford writes a calm, carefully argued, point by point refutation of the scientific atheism of Richard Dawkins, Peter Atkins, Stephen Hawking, and Michael Ruse.

For wider reading:

Cameron, Nigel M de S *Evolution and the Authority of the Bible* Paternoster, 1983 One of the best conservative statements of a position different from the present author's.

Taylor, Gordon R *The Great Evolution Mystery* London. Seeker and Warburg 1983. An able and provocative review of the difficulties facing orthodox Darwinism by a secularist writer.

Midgley, Mary *Evolution as a Religion* London, Methuen, 1985. The author writes as a university philosopher, not sectarian either way.

Lovell, Bernard *In the Centre of Immensities* Granada 1980 A work of "brilliant analysis and passionate humanity" by a great radio-astronomer, dealing in ultimate terms with man's place in the Cosmos.

Moore, James R. *The Post-Darwinian Controversies*, Cambridge University Press, 1979 A fine historical study of the period 1870-1900

Sire, James W, *Why Should Anyone Believe Anything at All?* IVP, 1994. A very fascinating discussion.

P.S. I have just come across a book now unfortunately out of print:

F.A. Filby *Creation Revealed* (1964, Pickering and Inglis). Dr Filby a Senior Lecturer in Inorganic Chemistry shows how our understanding of the biblical account of the origin and development of the cosmos has changed with time and study, and that the same applies to the scientific account of cosmic history. "The conviction grows upon me that there is a great deal in common in these two aspects of truth," he writes – "hence this book."

Also very strongly recommended is an old book by Dr. A.T. Schofield (1888, 1926) *The Fourth Dimension*, it is highly suggestive.

Approach to Genesis >>[back home](#)

(i) *Can Scripture be used to prove Scripture?*

It is sometimes urged that the appeal to Scripture to prove Scripture (even the appeal to the pronouncements of Jesus to do so) is invalid, since it begs the question; it is reasoning in a circle. That this need not be a conclusive objection can be illustrated by reference to a parallel problem: how can we satisfy ourselves of the validity of our physical senses as sources of reliable information? At least *sometimes*, on the face of it, they seem to prove unreliable (witness mirages, ventriloquism and referred pain). If we attempt an answer to this problem it will almost certainly be found that it involves the same sort of apparent question_begging as in the case of Scripture. Thus we may reply that we believe our eyes are not deceiving us because we can also *touch* the object we see: further, other people can see and touch it. But this is plainly to assume for our sense of touch (or for other people's) the sort of validity we wish to establish for our sense of sight. The same is true of the use of our reasoning faculty. In the last analysis the fact is that by reason of our creaturely status we *cannot* have final conclusive proof. Ultimately we have to take some position as 'given', and start from there. The situation is presented firmly and poignantly in Eccles.3.11 (JB): "...*though God has permitted man to consider time in its wholeness, man cannot comprehend the work of God from beginning to end.*" We shall be wise to accept this, and to ask only what is the most reasonable position from which to start. We must decide for ourselves: but the Bible puts it in unequivocally plain language: "*The fear of the Lord is the beginning of wisdom*" (Ps. 111.10; Prov.1.7; 9.10; cf. Job 28.20_28; Prov.15.33). I append here a remark of Wolfgang Weidlich, Professor of Theoretical Physics at Stuttgart 2:

"On the most favourable level every thought has a quasi_circular character, since on the one hand it must assume at least its own validity, but on the other hand, at this basic level, no genuinely independent means of verification can be found outside this thought" (cf. John 14.11).

(ii) *A Testimony*

One of the most scholarly modern writers on the biblical doctrine of Creation is Claus Westermann, Professor Old Testament at Heidelberg. The following extracts from his CREATION 3 show what a considerable change has come over critical scholarship since Gunkel 4 wrote in his famous essay of 1895, "it can be taken as assured that, ultimately, Genesis 1 is of Babylonian origin":

"It is both remarkable and undeniable that the passages dealing with Creation and primeval time which at the high point of the Enlightenment had been dismissed as utterly outmoded, have found a hearing once more in the second phase of the technological age. When the astronauts read out the story of Creation from the first chapter of the Bible before setting off for the moon, this was neither emotion nor enthusiasm. Rather, the words of the Creation narrative were suited to the event. In this spirit they were read, in this spirit they were heard by thousands. The achievements of science and technology in the first phase of the technological age gave rise to arguments for questioning the belief in Creation. An achievement in this same area in the second phase provides the occasion for the recitation of the Creation story . . . The attacks of the Enlightenment, with its glorification of the natural sciences and its ridicule of the nursery tales of the biblical_ecclesiastical tradition, have now run their course, and the emotion has evaporated."

Prof Westermann goes on to point out the unexpected universality of many elements of the biblical creation narrative, such as the formation of man from mud, clay, or dust, and the life_giving breath in Sumerian and Babylonian myths: the first offence, fratricide, and so on: these go right back to primitive cultures on all continents. "How is this striking agreement explained?" he asks. "The conclusion is unavoidable that *mankind possessed something common in the stories about primeval time . . . common to races, peoples, and groups throughout the whole world*" (my italics). He refers readers to H Baumann, CREATION AND PRIVEVAL TIME OF MAN IN THE MYTHOLOGY OF THE AFRICAN PEOPLES (1936; 1964). He suggests that these are all a response to man's sense of being under threat in a threatened and threatening world, a sense which was (and remains) of world_wide incidence and power. But why should man, we may ask, as a creature of Nature, feel threatened by Nature, and why should Nature be threatened? These are ultimate questions, and clearly hold a most vital key to the human situation. It is my conviction that there is no satisfactory answer but that given in the Bible: a primeval act of disobedience to the Creator (before mankind dispersed), and the inevitable alienation that this entailed _ to God, to one another, and to nature 5. It is time we all recognized this, before our civilization destroys itself and perishes miserably 6.

(iii) *The status of human governments*

The 'higher criticism' of the Bible 7 has been one of the major influences which has weakened the hold which biblical authority once had on the educated mind in the West. Once it is accepted that we can account for this body of literature in *wholly naturalistic* terms, what grounds are there for regarding it as "God's Word written", *theopneustos* as Paul says? 8. Yet the dangerous logic behind the 'higher criticism' fails before the Bible's insistence on the *sovereignty of God*. Nowhere is this more evident than where human government is in the picture. We commonly (and rightly) think of a king as *inheriting* a kingdom, a rebel as *seizing* power, a prime minister as *winning* an election. But in the biblical view, however true such ideas may be on the demographic level (and it accepts their validity), *on the ultimate level governments exist by the sovereign disposition of God*. Thus a particular Pharaoh had been raised up by God; Nebuchadnezzar and Belshazzar had been set on the throne of Babylon by Him; Pilate had been divinely charged with the administration of Judaea 9, and so on. However hard for human minds to grasp, all Scripture insists on it. The most helpful analogy is the 'double agency' existing between a human author and the characters in his tale (see chaps. III, XV and XVI).

NOTES

- 1 See Prof Paul Helm for this argument (Themelios 4,20_24,1978)
- 2 Wolfgang Weidlich, SCIENCE AND RELIGION, Second European Conference on Kluwer Academic Publishers, Dordrecht 1990
- 3 Westermann, Claus CREATION reproduced in English translation, SPCK 1974
- 4 Gunkel, Hermann The Influence Of Babylonian Mythology Upon the Biblical Creation Story (1895) in CREATION IN THE OLD TESTAMENT ed. B. W. Anderson (SPCK London 1984)
- 5 Gen.3.22ff; Isa.63.10; Ezek.23.18f; Eph.4.18ff

6 Exod.17.14; Isa.30.13f; Jer.51.60_64; Nahum 1,2,3; Luke 13.1_5

7 If the liberal position is consistently accepted no biblical teaching whatsoever can be taken for certain as divinely given, even that recorded of Jesus himself (for instance, Mark 8.16_21; Matt.25.31_46; John 11.38_44). Many liberals would accept that this is so; others would prevaricate.

8 Thirty_nine Articles, no.20 (BCP); 2Tim.3.16

9 Rom.9.17; Dan.5.18_23; John 19.10,11. See also 2Sam.7.8; Isa.44.28_45.6 and *passim*.

The Creation Week >>[back home](#)

(i) *'Thus the heavens and the earth were finished'*

What does the Bible mean by 'finished', especially in view of its teaching that 'creating' is a continuing activity of God? (see chap. IV and John 5.17). On the material level the meaning could well include something like this; matter has inherent limitations, one cannot go on building bigger and bigger bridges, the strength/weight ratio of materials sets a limit. Animals with exoskeletons like lobsters are limited in size by the diffusion rate of oxygen in water, and so on. It has recently been mooted in scientific circles that the possible computer functions of the brain are limited in the same way. If that is so then man may be the noblest creature possible with a constitution of flesh and blood. With him material creation may reach a climax, and be completed.

There is a theological meaning to be set alongside this. In man God has fashioned a creature 'in His own image' able to render Him 'reasonable service' (Rom.12.1 AV). This is the highest possible life for such a created being, the *summum bonum*. In man this culmination has been finally reached: but the work of creating continues. There is a biblical parallel to this in the reconciling work of Christ. This was finished on the Cross (John 19.30). but the work of reconciling men and women to God goes on (2Cor.5.20).

(ii) *'In the Beginning'* by Henri Blocher¹

In this fine scholarly exegesis, Prof Blocher discusses the interpretations that have been given by conservative scholars of the 'six days plus one'. The scheme he favours is a satisfying one: he calls it the "Literary Interpretation". It has a long and honourable pedigree. Broadly, it regards the 'six days plus one' of the narrative as an artistic arrangement, never intended to be taken literally, chronologically or as one of 'scientific type'. Rather, it represents "the great logical articulation of the divine work". As such, the narrative in its 'six plus one' pattern relativises human work; the goal of creation for man is not work, but *the sabbath* of communion with the Creator. This in fact, says Prof Blocher, sums up the difference between the biblical and the Marxist visions. Logical and anthropological rather than chronological and cosmological: that is the clue to understanding what the author of Genesis took as his guiding principle here.

I greatly appreciate Prof Blocher's view, though it looks rather different from my own². I don't think they are contrary by any means. My own concentrates on how the account was framed for its first recipients, to influence at once the way they now lived in their unaccustomed freedom: how they did this must have been of great importance in view of their calling as the people of God. But having served that function revelation had to speak with authority to subsequent (and more sophisticated) generations also. Why was there a created cosmos at all, and what was meant to be man's place in it? I think this is more the aspect that Prof Blocher deals with so ably.

(iii) *Ethical progress in the Bible*

The Israelites had been 430 years in Egypt where they had become a nation of slaves. They escaped under Moses not as a cultured and disciplined people ready for good leadership, appreciative of new liberty, and eager to rise to honourable nationhood. It was largely as an ignorant rabble coarsened by hard slavery, quarrelsome and rebellious; the book of Numbers makes this plain. They had therefore to learn much from scratch.

Women had fallen to a low status (quite different from Eve's in Eden); hence the Ten Commandments as first given (Exod.20) said to the Hebrew husband, "*You shall not covet your neighbour's house: you shall not covet your neighbour's wife, nor his manservant. . nor his ox .*". Forty years later, when Moses rehearsed them again before entry to the Promised Land, this had become "*You shall not covet your neighbour's wife: and you shall not desire your neighbour's house, or field . .*" (Deut.5.21). Honour has returned to wifehood! Think of the sabbath, given to remind them every week that God meant them to *enjoy restful freedom after labour* (see Deut.5.15, and cf. Rom.8.31), not to engage in endless work for greedy material 'advantage'.

These are examples of how Israel was re_taught right ways of living after tasting the misery of selfwill. God's dealings sought to raise them further in each generation towards the real secret of the happy life. Where a command vital for happiness was re_emphasized like this, it was wise for it (at first) to be *strictly enforced*; this explains the severity of Num.15.30_36. C.S. Lewis illustrated the rationale of this. He imagined a generous ruler making fine roads throughout his countryside and then giving his subjects each the novelty of a fine automobile. Unless he *imposed* also a highway code, his gift (of power) could be a source of wretched misery! This code had to be strict on all. But should obstinate law_breaking become really widespread he might have to let it take its course _ till such misery resulted that his citizens repented. Isn't this all common sense? Biblical history repeatedly illustrates this: see Ps.81.8_16 in the Old Testament, and Rom.1.24_32 in the New; the pattern is permanent. Not till mankind changes its ways, the Bible says, will history's long, tragic story of the rise and fall of powerful, domineering, and collapsing civilizations come to an end.

NOTES

1 IN THE BEGINNING Blocher, Henri IVP, Leicester 1984

2 I noted in chap. I how a great book like *Oliver Twist* can be read validly in several different ways (see its note21).

Creation and Providence >>[back home](#)

(i) *The relationship between Creation and Providence*

Unlike 'creation', 'providence' is not a word found in our familiar versions of the Bible. Nevertheless as a theological idea it has abundant biblical justification (see for instance Gen.45.7; Pss.65.9; 104.27,28; Matt.10.29,30; Luke 2.1_7 with Micah 5.2; Acts 10.1_23). Indeed, the theme of God's providential ordering of events is extremely prominent in Scripture¹. This being so, what is the relationship between Creation and Providence? Various views may be put forward: Creation initiates, Providence sustains; Creation is miraculous, Providence follows 'natural law'; and so on. The view suggested here is a little different. The Bible, it implies, regards any event as originating both creation_wise and also providence_wise. Creation_wise, it originates in the mind and utterance of God; providence_wise, it is linked with what precedes and follows it in the arena of space_time. This distinction was illustrated in Chap. IV by the example of the individual's *creation*, for Jeremiah was *already known* in the mind of God before he was being *providentially formed* in the womb (Jer.1.5). The passage 2Pet.3.4_7 notes that the world has *continuing existence* because in the beginning God's word *created* it (vv. 4b,5a,7a). But what happened in history _ the deluge, v.6 _ is not linked in the same way with that word; it comes rather into the category of historical *providence*. The only other comparable use in the New Testament of the verb *sunistemi* (2Pet.3.5c: '*having been held together by the word of God*') is in Co1.1.17. where it is translated 'consist'. Here it clearly seems to refer to the *sustained existence* of the world rather than to historical happenings. This is presumptive evidence that such existence is here linked to the *creative mind* of God, rather than to His *providential* ordering of history. But Peter goes further. Having spoken of the role of the Word in *creation* (vv.4.5). he proceeds to say (v.7), 'By the *same word* the present heavens and earth are reserved for fire, *being kept* for the day of Judgement'. This can be regarded as supporting the interpretation: 'creation' looks to God's unseen *bringing into being, and holding in being*, 'providence' to His visible *ordering of history*. But God, in different senses, is sovereignly the author in both.

(ii) '*According to its kind*'

The Hebrew word translated thus (*lemîn_h*)² is composed of three elements: the noun *mîn* (kind, species); the pronominal suffix *_h* (its); and the 'inseparable' preposition *le*. A critical question in deciding whether the Bible teaches 'special creation' or not is clearly the meaning of the preposition *le*. The basic sense of this is 'to, for, in regard to', but its usage is fairly wide; about sixteen columns (eight pages) of the *Lexicon* of Brown, Driver and Briggs are devoted to it. Their section in which the relevant instances figure is headed: 'Of reference to a norm or standard, *according to, after, by.*' Some typical references they quote are (1) Gen. 1: 11, 8:19; Numb. 1:2,20; and (2) Gen. 13:3; Exod. 17:1 (my subdivision). The example in Gen. 1 is, of course, the one we wish to understand. The others (which should be consulted in the RV, which keeps very close to the original) are worth examining. The thrust, semantically, of the phrase '*after their families*' in Gen. 8:19, is to emphasize that the exodus from the Ark constituted not an undifferentiated and confused movement of animal life but an organized and disciplined one. Variety and order were its hallmarks. Similarly, in Numb. 1:2,20 (where the preposition, occurring three times, is translated *by* in RV) it is the diversification and well_orderedness that are prominent. In the second pair of references the semantic thrust is similar. Gen. 13:3 pictures Abraham as taking not an undivided journey to Bethel, but as proceeding by a number of distinct stages (compare '*on his journeys*' RV with RSV,

NIV). Similarly, Exod. 17:1 uses the construction to the same effect (again compare RV 'by their journeys' with RSV, NIV). In a further common use (again following the *Lexicon*) the effect is *distributive*. Thus in Isaiah 33:2 'by mornings' means simply 'every morning' (RV, RSV).

We may sum up by saying that it is entirely reasonable to interpret the phrase in Genesis 1 as simply but pointedly gathering up all the ordered and varied categories under discussion and affirming that they came_to_be through the creative command of God (cf. John 1:3). This is far from positively teaching 'Special Creation'.

We can probably argue further. In Genesis 1 *lemîn_h* and its related forms are used in three settings only: (1) after 'God said'; (2) with the verb *b_r_* ' (create); (3) with the general verb '*sâ* (do, make) which can serve as a simple literary alternative to *b_r_* ' (cf. Gen. 1:26,27; 5:1,2). It is not used with verbs (such as *y_sar*, form) which imply the use of material and process. If the distinction which has been drawn between the biblical ideas of *creation* and *providence* is valid, then the fact that *lemîn_h* is used only in these settings (all viewing origins from the standpoint of creation rather than of providence) is probably significant. 'Special creation' (like evolution) must rank logically as a providential process, even if it is instantaneous. It seeks to answer the question, 'Biologically, how?'; and its answer can be described only in terms of space, time, and the material biosphere (as the 'scientific creationists' recognize). Thus, if true, it would properly belong to the *providence* story of origins, and as such would not have the benefit of *lemîn_h* even if that benefit were forthcoming. For this additional reason therefore 'special creation' cannot be established from Genesis.

NOTES

- 1 It is well expressed in the Collect for Trinity 8 in the Book of Common Prayer; "O God, Whose never_failing providence ordereth all things both in heaven and earth . . ."
- 2 This is the form following the singular feminine noun 'creature'
(Gen.1.24 RV).

The Primal Creation >>[back home](#)

The primal creation, though it was pronounced 'very good', was not an idyllic paradise. The great Adversary had access to it; it was perhaps designed to be the scene of his defeat. It was created as it is now, 'subject to futility', with elements of fear, predation, pain and death. Man was given the task of subduing it and bringing it to harmony. Through an act of self-will at the beginning of human history he failed in his mission. Creation fell under the curse of disappointed hopes and broken relationships. It awaits man's final redemption and the uniting of all things in Jesus Christ.

It is common knowledge that the Bible teaches that after God's initial work of creation something tragic happened in the Garden of Eden: man disobeyed his Maker, and brought disaster on the race. The nature and extent of this disaster (according to the Bible's own testimony) we shall have to look into later; first we have a more immediate matter to consider – the character of the physical creation as it first left the hand of God. What was it like? My own conclusions about this primal creation (as we may call it) are going to be rather different from those which have commonly been held, so a brief statement may be helpful at the outset to set the matter in context.

A common view of the primal creation is that suggested by Milton in *Paradise Lost*: Eden was a Paradise, a place of ideal bliss. But even outside Eden (since the epithet 'very good' is applied to the whole creation in Genesis) there was nothing to 'hurt or destroy' 1. Diet for both man and the animals was wholly vegetarian, and there was no pain, disease or fear among them. Perhaps there was even no death; certainly there wasn't for man himself. In the physical world earthquakes, droughts, volcanic eruptions, storms and such like were probably unknown. In fact, everything was idyllic – until man sinned. Then things changed dramatically for the worse. This is probably a fair statement of what has been held by many (and is still held by many) to be the Bible's teaching. Against this I shall argue that the primal creation was not idyllic; that some animals were predators, and that all were mortal; that even man himself was probably a flesh eater; and that storms and floods were as much a matter of course then as now. This to many will be a fairly radical reinterpretation, and I shall have to set out carefully my reasons for adopting it. It would be disingenuous to maintain that it had no attractiveness as making a reconciliation with the scientific view easier. It obviously has. But it seems to me, nevertheless, to be a valid conclusion (I am claiming no more) from the biblical teaching. Let me give my reasons.

The view that the primal creation was perfect is based principally on the repeated statements in Genesis 1 that the work of the successive days was 'good' 2. Except for minor variations at first, the formula which announces this is quite uniform and in the singular; *'it was good'*. It seems reasonable to suppose therefore that it was the *action taken* to which the 'good' primarily applied. At the end, God saw all that he had *done* 3, and *'it was very good'* 4. In the common view, this is effectively taken to mean that, judged from our present day standpoint, everything was there and then perfect; the whole contained no single source of disharmony. This conclusion is hardly beyond question, as I shall try to show.

A supporting argument for the common view is based on Gen.1.29,30: *Behold, I have given you every plant for food*. On the face of it this appears to say that man and the animals at the beginning were wholly vegetarian. This conclusion is apparently

reinforced by God's words to Noah when the earth was re_peopled after the flood: *Every moving thing that lives shall be food for you; and as I gave you the green plants, I now give you everything* 5. This is a new concession, it seems, made to man fallen from innocence. With it comes 'fear' and 'dread' of him into the animal world. Interpreted thus, this reference adds its support to the view under discussion. All_in_all therefore, it has been argued, the Bible gives us the picture of a primal creation where all was harmonious, was where the predatory habit, and fear and pain were unknown. The Messianic age it seems, will restore this, for then, *they shall not hurt nor destroy in all my holy mountain* 6.

Now the trouble with this view is that it jumps to conclusions I believe, too quickly. It makes the assumption, for instance, that it knows exactly what the Bible means when it says that what God had 'made' or 'done' was 'good' or 'very good'. It tends to make these epithets absolute, instead of relative, and this is especially apt to mislead when the verb is translated *made*. But if they are taken as relative (as in some sense they must be, for God alone possesses absolute goodness)⁷ a natural question is, relative to what?; and an obvious answer is, relative to the purposes of the Creator. Before we consider the wider question this raises it is worth noting a minor parallel, also from the Pentateuch. The land of Canaan where Israel was to start its national life God pronounces *a good land . . . flowing with milk and honey* 8. Yet in spite of this it was occupied by fierce aliens; it required both hard fighting to possess it and hard work to exploit it; and it remained surrounded by potential enemies. Its God_declared 'goodness' did not reside in its splendid climate; superlative scenery, natural resources, freedom from threat and whatever else makes people happy; we could all probably think of places much better. It resided rather in its eminent suitability for God's purpose of blessing and training His chosen people.

What of the question then of the purposes of God in creating our physical cosmos (or should we restrict ourselves to the earth, Luke 4.5ff)? Here Milton is almost certainly on biblical grounds in linking our destiny with other and non_physical orders of creation. The Bible bears witness to the fact that our cosmos is not all that God has created. Jesus spoke of the angels, good and bad 9; Peter writes of angels, *authorities and powers* 10; Paul of *the wiles of the devil. For our wrestling is not against flesh and blood, but against the principalities, the powers, the world_rulers of this darkness, against the spiritual hosts of wickedness in the heavenly places* 11. Of course, belief in such orders of created intelligences (particularly evil ones) is widely rejected today, especially in educated circles. Why? 'Theological and philosophical fashion' is the principal answer. There is no actual evidence against this belief; on the contrary there is a great deal of evidence for it 12. The devil (to be particular) may be out of contemporary scholarly favour, but clearly he's not out of a job. Like all wreckers he prefers to work in secret, unrecognized and unsuspected, so the present climate of opinion is not surprising, and no doubt suits him well 13.

Now the bearing of this on our subject should be obvious. The primal creation was one to which, in the wisdom of God, this great Adversary had not only access, but actually authority¹⁴. Why is not clearly revealed. What the Bible does tell us is that the work of Christ, conceived in heaven and wrought on earth, has reference to more than just the plight of humanity, however central to it that may be. *He must reign till he has put all his enemies under his feet*, Paul writes; and this includes Satan and the fallen angels 15. In this work of overcoming angelic rebellion and handing over the kingdom to God the Father 16, humanity has a central significance. It is 'through death' at the hands of men that Jesus *destroys him that has the power of death, that is the devil* 17, and it is through his death, confessed by faith, that redeemed humanity itself overcomes the devil and

participates in his defeat 18. Thus, Paul says, it is *through the church* (i.e. the body of believers) that God the Creator makes known *His manifold wisdom . . . to the principalities and powers in the heavenly places* as He fulfils His eternal purpose to unite all things in Christ Jesus as Lord 19.

What all this suggests is that God had a purpose in the creation of our physical cosmos that reached beyond it, just as He had a purpose in calling Abraham that reached beyond his own race 20. He already had a rebellion on His hands, and our world was to be the scene of an act (of supreme cost and self_giving) by which He would not only reconcile our world to Himself (for that world would join the rebels) but also achieve the end of all rebellion and bring in everlasting righteousness 21. If we accept this, it is bound to influence the view we are prepared to take of the primal creation. We shall hardly expect the latter to be a state of perfect bliss, an idyllic paradise. We shall rather be ready to understand the 'good' and 'very good' of Genesis 1 in terms of the stern (but loving) programme the Creator had in mind for His new creature, man. At this programme we must now look.

It is expressed in the mandate given to man in Gen.1.28 which reads, *Be fruitful and multiply, and fill the earth and subdue it; and have dominion . . . over every living thing..* This mandate charged man with 'subduing' the earth 22. The Hebrew word for 'subdue' is *kabas*, and in all its other occurrences in Scripture (about twelve in all) it is used as a term indicating strong action in the face of opposition, enmity or evil 23. Thus, the land of Canaan was 'subdued' before Israel, though the Canaanites had chariots of iron 24; weapons of war are 'subdued'; so are iniquities 25. The word is never used in a mild sense. It indicates, I believe, that Adam was sent into a world where *not* all was sweetness and light, for in such a world what would there be to subdue? The animals, it suggests, included some that were wild and ferocious 26; and Adam was charged to exercise a genuinely civilizing role and promote harmony among them 27. In fact, this function is set out very suggestively in Psalm 8, where man's Godlikeness, his strong delegated authority (*all things under his feet*), his encounter with opposition (*the enemy and the avenger*) and the secret of success (the open celebration of God's glory, *even by babes and infants*) are the significant emphases. What man failed to do it fell to the lot of Jesus the Messiah to accomplish, and it is no surprise, therefore, to find this psalm referred to Jesus in the New Testament 28. All this seems to justify us in believing that man's role was designed to be a Messianic one 29.

We pass on to consider what is involved in the 'dominion' over the animal world with which man was charged. In common with 'subdue', the idea here is, as von Rad notes 23, "remarkably strong". It would seem indeed rather inappropriate if all man had to do was to exercise a gentle beneficence. What then did it involve? Permission to use animal flesh (as well as plants) for food? Calvin certainly had an open mind on this question 30. I shall argue at once that it did, and then attempt finally to reconcile this viewpoint with the statements of Genesis 1.29 and 9.2,3.

Soon after the expulsion from Eden man was keeping sheep 31. Indeed animals of a domesticable sort seem to have been explicitly included in the initial act of creation 32. The occupations of Cain and Abel are introduced in a strictly parallel fashion; the presumption is therefore that their purpose was similar, in the main to provide food and clothing. Abel's sheep can hardly have been only for religious sacrifice, as has been urged; for Abel brought only the firstlings as an offering. Further, of those sacrificed only the 'fat portions' appear to have been burnt 33. There is a strong presumption therefore that part of the sacrifice was eaten by the worshipper, (a practice to be regularized later in Israel's history). Again, sacrifice was not apparently a frequent event 34; it can hardly

therefore have been the main purpose of Abel's sheep_keeping. If this main purpose was to provide skins for clothing 35, what happened to the carcasses? They can hardly have been left to rot, for how then could they ever have come to be regarded as a thing worthy to be offered in sacrifice? The biblical record seems therefore to point to the conclusion that man was, at least as early as Abel, a regular eater of animal flesh, and not only so in connection with sacrifice. Can we go further back than that? Yes, possibly. We have the statement that immediately subsequent to the Fall the *Lord God made for Adam and his wife garments of skins, and clothed them*. We need not suppose that this means that the Deity physically fabricated the garments Himself; rather He gave the word of instruction to Adam and his wife themselves or even to some angelic servants (cf. Gen.19.15f). But nothing is said about how the skins were to be acquired. Presumably this was by slaughter; but if this had been a radically new departure for man it is plausible to argue that this would have been made explicit. It is at least possible therefore that skins were ready to hand, having been used up to that point perhaps to construct shelters. This takes us back therefore to before the Fall, that is, into the primal creation.

We turn to the New Testament evidence. There is an important reference to what was almost certainly the eating of flesh 36 in 1Tim.4.3,4. Paul is warning Timothy against those who *forbid marriage and enjoin abstinence from foods which God created to be received with thanksgiving by those who believe and know the truth*. This is a strongly worded statement, with no obvious reference to the postdiluvial concession of Genesis 9:3. Rather, *created* 37 takes us right back to Genesis 1, an impression reinforced by the next verse: *for everything created by God is good*, as that great chapter stresses. We may conclude therefore that Paul is referring to the primal order before man fell, and that man's 'dominion' then included the use of flesh for food.

A quite distinct argument concerns the practice of Jesus. Even after his resurrection, *in the power of an indestructible life* 38, he himself partook of animal food and provided it for others³⁹. Would this have been likely, it may reasonably be asked, if the eating of flesh had been a concession to man as fallen sinner? Concerning marriage _ coupled with foods by Paul in the passage we have just examined _ Jesus did not hesitate to re_direct his disciples' obedience to the creation ordinance established 'in the time of man's innocency' 40. If man was in the time of his innocency a pure vegetarian why did not Jesus re_direct his disciples to *this* ordinance too, instead of ignoring it? It would have been quite practicable (as experience both then and now confirms), and *ex hypothesi*, probably beneficial. I believe the right answer is that pure vegetarianism was not a creation ordinance *in the sense in dispute*; that is, it did not represent the primal *status quo*.

There remain to be considered two outstanding passages in Paul's epistle to the Romans. The first is Romans 8.18_25, especially the statement in verse 20: *the creation was subjected to futility not of its own will but by the will of Him who subjected it in hope* 41. This statement is most often interpreted as referring to the curse of Gen.3; yet the whole passage quoted has no noteworthy verbal affinity with the latter, whose memorable language Paul might so easily have taken up into his own rhetoric, in the manner he so often adopts 42. It is true that there is an affinity of *ideas* between the two passages, Paul's picture of the *whole creation groaning in travail* recalling the words to Eve of *pain in child_bearing greatly multiplied*, and death forming another link (if we interpret 'futility' as implying death). This we can agree. Yet I still feel a difficulty besides that lack of obvious verbal affinity. To extract the whole range of animal sorrows _ predation, savagery, jealousy, fear and death, with all else that could be read into 'futility' _ from the simple terms of the curse (which mentions only *the ground . . . thorns and thistles*) is to go far beyond what those terms themselves suggest. It is surely sounder exegesis to limit the

meaning of the curse as far as possible to what it actually says, if this yields an adequate sense; and the sense that man's relationship with his natural environment was henceforth to be a blighted one is serious enough. We shall discuss it further below. What is being suggested therefore is that we should abandon an interpretation that equates the *subjection to futility* simply with the Genesis curse, and understand it instead as referring to *the primal creation itself*. Meanwhile, it is not necessary to dismiss as of no significance the presence of the two important ideas (*travail* and *death*) linking Paul's passage and the curse; they retain importance as part of the wider view.

There is, moreover, an objection of a different sort to the traditional interpretation of this great passage. To identify the *subjection to futility* with the curse is to anchor it to a particular moment *within history* 43; it is from this moment that Paul's thought is made to take off. But Paul does not seem to be in such a temporally_limited frame of mind in this chapter; witness verses 29 and 30, where the span of his thought is from foreknowledge (before history began) to glory (after it has ended). Is it not likely, we may ask, that the same is true of his thought in the passage we are discussing? If this is so, its span would then be from the very conceiving of the physical creation to its fulfilment in the *liberty of the glory of the children of God*. On this understanding of Paul's words the *subjection to futility* comes within the purview of Genesis 1 rather than of Genesis 3; this is what we have been maintaining.

The second passage is the moving peroration with which Paul closes the eleventh chapter of Romans (11.33_36 NKJV):

Oh, the depth of the riches both of the wisdom and knowledge of God! How unsearchable are His judgements, and His ways past finding out.' For who has known the mind of the LORD or who has been His counsellor? Or who has first given to Him, and it shall be repaid to him? For of Him and through Him and to Him are all things, to Whom be glory for ever. Amen.

Of what is Paul thinking when he uses the words 'unsearchable' and 'past finding out'? Principally, no doubt, of God's ways as Redeemer. But he can hardly be thinking exclusively of these. One of his principal lines is from Isaiah 40, a chapter rich in allusions to creation. Further, the *from, through and to* of Romans 11.36 is too close to other similar Pauline passages 44 for it to be denied that God as Creator is also in view here. Now it is clearly inadmissible in the case of redemption to limit this great ascription of praise to a historical process which began only with Adam's sin (as if redemption was an *ad hoc* idea only then conceived by God). In terms of time it *must* span the whole of God's revealed activity (and more) from Gen. 1.1 onwards: *the hidden wisdom which God ordained before the ages for our glory* 45. But if that is true for redemption it is *a priori* likely to be true for creation also. Again, Paul powerfully asserts that God's ways run utterly counter to what human wisdom would expect: *God has consigned all men to disobedience that He might have mercy upon all* 46. He is speaking here, of course, of God as Redeemer; but again there is no reason to disbelieve that God's ways as Creator partake of this same character. They too are 'unsearchable' and 'past finding out', and that from the very foundation of the world. They no more make sense to natural human wisdom than does God's plan of salvation. For this reason therefore I find no difficulty in believing that, in God's inscrutable wisdom, the animal world was *created* subject to futility 47; that is, subject to the same imperfections as we see it to have now. Man failed in his mandate to lead it to liberty 48, and now he is himself in thrall to futility and death and awaits his own final redemption. With his revealing in glory as God's son, Paul asserts, the animal creation too _ and no doubt more beside _ will attain its own glorious fulfilment, and its travail will be at an end. This is the cosmic hope to which it is looking

forward. If it be objected to this reading of the scriptural evidence that there is a grave moral difficulty in believing that God created animals subject to such evils as have been outlined (for example, death and predation) there is an immediate reply. Is it in principle less of a difficulty to believe that he would have subjected them afterwards to the same evils through no fault of their own? 49 Surely not; for the evils we are thinking of go far beyond what a mere solidarity between man and the animals would naturally entail 50 . Thus the moral objection seems to cancel itself out; it is one of the deep things not yet made known to us.

I am not maintaining dogmatically that the view advanced here is without doubt the Bible's teaching; but I believe that it is sound exegetically, and it seems to make better sense than the usual view. Of course, as we noted earlier, it is easier than the latter to harmonize with the theory of organic evolution; but that should not be allowed to prejudice us either way. Nevertheless, were the cases for both interpretations hermeneutically exactly equal, evidence of an extra_biblical (i.e. scientific) nature should surely be allowed to influence the view we take. This principle has been universally accepted in connection with the interpretation of biblical passages which seem prima facie to suggest the mechanical fixity of the earth (e.g. Pss.93.1; 104.5), and the result has been a genuine deepening of our insight into Scripture. It is at least possible that the same may be true in connection with our understanding of the primal creation, and that, here too, study of nature has a little to offer. I firmly believe that Scripture implies that it is God Himself who teaches man the principles used in science (see Isa.28.23_29), and I have defended this view elsewhere 51. All truth is God's truth; and nothing is to be rejected if it is received with thanksgiving (1Tim.4.4).

We may summarize this understanding of the primal earth as it was 'in the time of man's innocency' as follows:

(1) It faced a brooding, antagonistic and personal 'Power of darkness', of whose origin the Bible tells us little 52. It was destined to be the theatre of his overthrow, and this seems to be already implied in the very strong mandate given to man. The primal creation can hardly therefore be regarded as idyllic.

(2) The Bible gives us no real reason to doubt that in its general physiography and its flora and fauna the primal earth 'in the time of man's innocency' was essentially the same as it is today; that is, that there were predators and herbivores, fruit trees and thistles, sunshine and storm, and much else that we now see.

(3) The primal creation was nevertheless 'very good' in view of the purpose God had in prospect for it.

Man was to play a key Messianic role, and the outcome of his filial obedience (we may conjecture from reading the Bible more widely) would be a happy race of men and women filling the earth, living in complete harmony with one another and their environment and revelling in the divine presence. The earth's physical turbulence would have been subdued for beneficial use; the animal creation civilized and brought into concord by the gentle elimination of discordant elements 53; and the plant world encouraged into luxuriance and beauty. We are not to suppose that the Curse (which will be discussed later) altered the direction of man's endeavours to master the earth; it only soured and largely perverted them. The mandate originally given to man was to eradicate everything hurtful, promote peace, organize plenty, and attain in himself a wondering comprehension of the world he lived in. The setting of the primal creation provided for this programme to go ahead with speed and success; and the far_reaching directive of

Gen.1.29,30 (*I have given you every plant yielding seed . . . and every tree with . fruit . and every green plant for food*) is interpreted accordingly, and in harmony with other scriptures. It was not what was there and then in force, but a goal to be worked to. Had man lived in filial obedience all this delightful outcome would have been happily and no doubt speedily achieved 54 . That was why God saw all *that he had done, and behold it was very good*. Alas _ but that is another story.

The Genesis witness has far_reaching significance. Some great Eastern philosophies 55 are world_ and life_denying. Existence, they teach, is an evil thing. Something of their attitude spasmodically appears in Western society: "Stop the world, I want to get off." Against this the Bible is robustly world_ and life_affirming. Creaturely existence is good, it says. But that is not quite all. It is to get better. Hope, in the Bible, is one of the three outstanding things (*faith, hope and love*) which 'are always there'. Significantly therefore, the present interpretation implies that hope was in full exercise from the very first. Man was not brought on to the scene to enjoy a physical creation already perfect and looking forward to nothing better. Rather, as the first creature with full self_consciousness, to be a fellow_worker with God 56, he was given the task of leading the animal world to a fuller liberty and more pleasurable life. This conclusion gains in significance from understanding Paul's *subjection to futility* as a reference not only to the curse of Genesis 3, but also to the creation_work of Genesis 1. *Paul's eager expectation* (i.e. 'hope') thus assumes an earlier and more fundamental place in God's scheme of things 57. That is surely, as it should be, entirely appropriate for one of the three things which 'abide' and are always there (1Cor.13.13).

Conclusion

The subject of the present chapter is one on which the Bible leaves us 'knowing only in part' (1Cor.13.9), as it does the vast question of the origin of evil. But it indicates clearly (Eph.3.9f) that there are invisible realities concerned not open to scientific enquiry. What this chapter has attempted to do is to think of the 'primal creation' in the light of these realities also, headed up as they are by the Serpent (Rev.12.9). This approach is surely a biblically valid one.

NOTES

- 1 cf. Isaiah 11.9
- 2 Gen.1.4,10,12,18,21,25. The verb (in italics, KJV) is understood.
- 3 The Hebrew verb *asa* means equally both 'do' and 'make' (like French *faire*); compare Gen. 2.2 in RV and RSV, . and Gen. 1.31 and 2.2 (where the same verb is used) in the NIV, RSV, REB. I have adopted the meaning 'do' here.
- 4 Gen.1.31 The words (italicised in some versions) 'it was' or 'it is' are supplied by the translator.
- 5 Gen.9.2,3
- 6 Isaiah 11.9
- 7 Mark 10.18

8 Exod.3.8

9 e.g. Matt.13.34; 25.41

10 1 Pet.3.22

11 Eph.6.12

12 The witness of the Bible; the sheer *concreteness* of evil; occult phenomena and present_day demon_possession; the experience of dread; primitive intuition. See the sensible remarks of the eminent scholar C. E. B. Cranfield, *CambridgeGreek Testament COMMENTARY ON MARK* p.75 (CUP, 1977)

13 Attempts have been made to replace the idea of a personal Devil with impersonal philosophical conceptions such as the Das Nichtige of Karl Barth (cf. John Hick, *EVIL AND THE GOD OF LOVE*, SCM Press, 1966).
The results are without practical power, spiritually or ethically.

It is best to take the Bible in its plain and consistent sense, however great the problem for theodicy.

14 As Gen.3 makes plain. See especially Luke 4.5_8. For the identity of the tempter see Mark 1.13; 2Cor.11.3; 2Thess.2.9,10; Rev.12.9.

15 1Cor.15.24_26, cf. Matt.25.31,41; Heb.2.14; 1John 3.8

16 1Cor.15.24

17 Heb.2.14

18 Rev.12.7_12 _ *by the blood of the Lamb* and *by the word of their testimony*, cf. also Luke 10.17,18; Rom.16.19,20

19 Eph.1.10; 3.9,10,11; Co1.1.20

20 Gen.12.3 (NIV)

21 Dan.9.24.

22 I shall limit my comments almost entirely to the living world, though the mandate undoubtedly covers also the non_living. It is, in fact, a mandate for all branches of science and technology.

- 23 "The expressions for the exercise of this dominion are remarkably strong: *rada*, 'tread', 'trample' (e.g. the wine press); similarly *kabas*, 'stamp' ". G. von Rad, GENESIS pp.59f.
- 24 Joshua 17.8; 18.1; ('land' is the same word as 'earth' in Gen.1.28, and 'subduing the land' means 'subduing the inhabitants').
- 25 Zech.9.15 (for literal, see RV); Mic.7.19
- 26 See Appendix IV(i) on the 'great sea monsters' of Gen.1.21
- 27 Even today some men and women have remarkable power to establish friendships between animals naturally enemies. Compare the comment about Jesus in Mark 1.13 and cf. Mark 11.2.
- 28 Matt.21.16 (quoting from the Septuagint); Heb.2.6_9
- 29 Had man faithfully fulfilled his mandate, the outcome, I suggest, would have been as described in Isa. 11.6_9. The critical factor in securing this is given in verse 9 _ the universal knowledge of God. So far from disseminating this knowledge, Adam lost it himself.
- 30 John Calvin, COMMENTARY ON GENESIS (Eng.trans.1847, Banner of Truth Trust) See comments on Gen.1.29,30 and 9.3; also the fine recent commentary by Henri Blocher *op.cit.*, p.209 note.
- 31 Gen.4.2
- 32 Gen.1.24. The Hebrew word translated 'cattle' here can mean simply 'beasts', but the verse is usually interpreted as suggested (cf.NIV). The reference in Ps.8.7 seems to put it beyond reasonable doubt that animals for domestication are meant.
- 33 Gen.4.4 (NIV, NEB, GNB); cf. the Peace Offering, Lev.3.1_5; 7.11_15.
- 34 Gen.4.3. 'In the course of time', lit. 'at the end of days', seems to imply this.
- 35 Man's first clothing seems to have been of animal skins, not fabricated wool (cf. Gen.3.21).
- 36 'Food' here is the general term *broma* (cf. Matt.14.15). It certainly commonly includes flesh (cf. Rom.14.2,15,20, where it is used three times, with 14.21 where 'flesh' and 'wine' are mentioned explicitly as included in the term; cf. similarly 1Cor.8.13).
- 37 The aorist tense here indicates an action complete in itself. Had Paul wished to refer to the *continuing* creation of animals, generation by generation (Ps.104.30) he would surely have used the present.
- 38 Heb.7.16; cf. Rom.6.9,10
- 39 Luke 24.42; John 21.9,10
- 40 Matt.19.4,5. The phrase quoted is from the Marriage Service (BCP).

- 41 'Futility' (RSV); 'frustration' (NIV, REB); 'inability to attain its purpose' (JB).
- 42 See such passages as Rom.10.6_8; 11.34,35; 1Cor.1.20; 2Cor.3.18; 4.6; Ga1.1.15 etc. Note further how unambiguously Paul refers to the Fall in Rom.5.12_21; there is no such plain reference here
- 43 This conclusion is not altered if some scholars refuse to regard the Fall as a matter of *history*; what is important is that Paul himself regarded it as such.
- 44 e.g. 1Cor.8.6; 11.12; Co1.1.16,17
- 45 cf. 1Cor.2.7; Eph.1.4,7; 2Tim.1.9,10 (NIV, NEB).; 1Pet.1.18,20; Rev.13.8. The significant phrases are 'before the foundation of the world', 'before times eternal', 'before the ages'.
- 46 Rom.11.32; cf. 1Cor.1.18_21
- 47 Contrast Isa. 42.4; John 17.4.
- 48 Rom.8.20,21
- 49 See C E B Cranfield, *op. cit.* on Rom.8.20.
- 50 A dog suffers when its master takes to drink _ that is an outcome of solidarity. But it doesn't undergo structural and physiological changes which alter its whole biology.
- 51 *Is Hell for Ever?* Churchman 110 (2) pp.107_120 1996
- 52 Luke 22.53b, cf. Co1.1.13. In both cases the key word is *exousia* which almost invariably in the N.T. stands for authority vested in a person; the Power was personal. See also Luke 4.6ff. Satan's fall is perhaps adumbrated in Isa. 14.12ff, Jude 6.
- 53 Such as predators and parasites
- 54 cf. Isa. 48.18,19
- 55 e.g. the various forms of Buddhism
- 56 1Cor.3.9; Acts 15.28
- 57 Rom.8.19_22; note the mention of 'pains of childbirth' in v.22. 'Hope' to the biblical writers means 'joyous expectation'.

Man's Probation >>[back home](#)

(i) *The Two Trees* (Genesis 2)

The purpose of biblical exegesis is not to find a way of reconciling Scripture with science, but to find out the meaning of Scripture from clues found within itself. The futility of much secular criticism of the Genesis narrative arises from failure to follow this obvious rule.

The 'tree of life' is met with again in Revelation 2.7 and 22.2,14, the latter passage (in conjunction with Ezekiel 47.12) indicating that the fruit and leaves of the tree were for repeated use, and that their virtues depended upon the river flowing from the very presence of God. Other references to a 'tree of life' occur in Proverbs 3.18, 11.30 and 13.12. These passages surely indicate not only that the tree of life may be interpreted symbolically, but that it is meant to be. In the light of the passages from Revelation and Ezekiel, to be deprived of the tree of life may legitimately be interpreted as to be 'alienated from the life of God' (Eph. 4.18) and denied access to him (Eph. 2.18). The parallel metaphors of the 'path of life' and the 'fountain of life', both associated with joy in God's presence under a variety of images, point in the same direction (see Psalms 16.11 and 36.7_9).

This understanding of the tree of life strongly suggests that the 'tree of the knowledge of good and evil' is also to be understood as a symbol. But a symbol of what? The interpretations of the phrase 'knowing good and evil' have been very many; the one which seems to have the best claim is that which equates it with the prerogative of moral judgement. As Blocher says, "The knowledge of good and evil corresponds to the ability to decide. It is the prerogative of the king who judges his subjects, and of the father who brings up his son."² To *take* the fruit of the tree is to assert one's moral autonomy. "I don't need to be told what to do. I can quite well decide for myself," is the meaning of the act. The forbidding of the fruit was an instruction to man not to "seek to be wiser than became him, nor by trusting to his own understanding cast off the yoke of God, and constitute himself an arbiter and judge of good and evil".³ "The serpent holds out less the prospect of an extension of the capacity for knowledge than the independence that enables a man to decide for himself what will help or hinder him. This is something completely new in that as a result man leaves the protection of divine providence . . . Now man . . . will decide for himself."⁴ "The guiding principle of his life is no longer obedience but his autonomous knowing and willing, and thus he has really *ceased to understand himself as creature*" (von Rad 5; my italics). One can say at once two things to this: it pinpoints the source of humanity's sickness; and it represents a movement decisively reversed in the life of Jesus Christ.⁶

The significance of this discussion of the two trees for apologetic is that it lays bare a message for humanity of such consummate importance that it justifies the narrative in surrendering every secondary (e.g. scientific) interest to get it across. It is nothing less than that '*the righteous shall live by faith*'⁷ (i.e. deliberate dependence on God) and that '*faith works by love*'⁸ (i.e. deliberate obedience to God). Besides these truths, the significance of any scientific data is almost trivial! One can live, and live to the full, without a knowledge of the workings of the digestive system, the circulation of the blood, the expanding universe, or even the wonders of DNA. One cannot live without faith and love.

Understanding the biblical language about the trees as a symbolic way of speaking of something spiritually profound does not necessarily mean that one rejects the interpretation that regards the trees as sacramental, i.e. as physically_real trees divinely invested with a meaning for man which went beyond themselves. When we say that an officer 'saluted the flag' we may mean simply that he expressed deep love and reverence for his country (perhaps by an action peculiarly his own). But without denying this sense we may also mean that he made a physical gesture towards a particular piece of cloth. In that case (i.e. when both meanings are present) the physical action becomes a sacramental one. However.. we interpret them (sacra mentally or as pure metaphor) the two trees in the centre of the garden (i.e. with a significance central to life) form an interesting parallel to the sacraments of the New Testament, Baptism and Holy Communion. Eating of the forbidden tree was a once_for_all assertion of independence; submission to Baptism is a once_for_all lowering of the rebel flag. The tree of life was to be the continuously_available source of life and health; the bread and wine are symbols of the same. In so far as the gospel reverses (and more than reverses) the results of the Fall, this parallelism supports the interpretation of the two trees

discussed above..

(ii) *The meaning of death*

'In the day you eat of it you shall die' (Genesis 2:17). This raises two questions. What is meant by the phrase, 'in the day'? And what is meant by, 'you shall die'? Let us deal with these in order.

(1) Henri Blocher (with whom I find myself in general in almost perfect agreement) argues that the meaning of the judgement is, 'In that day you will fall under the power of a death sentence'⁹ – a sentence the date of whose actual execution remains unspecified. This permits 'you shall die' to refer to *physical* death in spite of the 900 years delay. Blocher quotes the story of Solomon and Shimei in 1 Kings 2.36_46 in support of this interpretation. The act (of eating the forbidden fruit) will be by its very nature final and irrevocable; God is not merely forbidding what may tend to become a bad habit. But I believe the curse goes further; it means that *actual* death will come at once, without delay.

(2) But what is meant by 'death'? It has been argued that 'the New Testament concept of *spiritual* death is never found in the early books of the Old Testament; the only kind of death the ancient Hebrews spoke of was *physical* death.'¹⁰ This would be a serious objection if it were true. But that is hardly the case. In a noble passage towards the end of Deuteronomy¹¹ Moses gives his last exhortation to the people of Israel. '*I call heaven and earth to witness against you this day, that I have set before you life and death, blessing and the curse; therefore choose life.*' What is *life*? It is '*loving the Lord your God, obeying his voice, and cleaving to him*' (v. 20). That will mean '*length of days*' in the promised land. Correspondingly, *death* is also spiritually defined; it is '*a trembling heart . . . a languishing soul . . . dread . . . no assurance*'. Time is burdensome; it is length of days under conditions of slavery in a foreign land (Deut. 28.65_68). One might almost say that *physical* death is a release, a boon! No; the Pentateuch, no less than the rest of the Bible, regards the gravity of death to lie in the spiritual sphere, not in the physical.¹² Is there indeed any reason why these very words of Moses should not be regarded as an exposition (in the light of experience) of just what is meant by the words of the Lord God in Eden? I can see none. If this is agreed they can serve as a definition of what the latter mean by 'death' – a spiritually wretched existence, devoid of the warm response of love to God, of the vivid sense of sonship, and of God's fatherly care, till physical dissolution

brings down the curtain on a sad episode of existence.

With this understanding of, '*in the day you eat . . . you shall die*', the problem of the 900 years' delay ceases to exist. But another problem seems to intrude itself. What are we to make of Paul's insistence that death entered the world through Adam's transgression? Isn't it plain that he means *physical* death, as nearly all commentators have argued? My suggestion is that the traditional understanding of Paul is right – in part. In part, because Paul is not thinking of death simply as something which man shares with the lower animals. He is thinking of death as the King of Terrors, 13 as the *exit_from_physical-life_to_judgement*, as a physical termination with a spiritual sting.¹⁴ When he says that Adam brought this into the world of man's experience we must take his conception in its totality. When we do so we see that death *in the purely animal sense* (which is all that Darwin's theory is concerned with) is not *as such* something which Adam introduced. It may have been included, but we are not entitled to insist from Paul's words that it must have been. In making the distinction (between animal death and death as the King of Terrors) we are following good New Testament precedent; compare our Lord's words in John 8.51 '*Truly, truly, I say to you, if any one keeps my word, he will never see death.*' Clearly, this does not refer to animal death in whole or in part; it refers to *death_as_a_prelude_to_judgement*.¹⁵

To sum up in concrete terms: we can think tentatively of Adam's *sub_human* original as subject to *physical death_without_terrors_and_without_sting*. When into its nostrils was breathed the 'breath of life' (*ne_mâ*) the sub-human became Adam, the first man. To Adam was spoken in Eden a word corresponding to Deuteronomy 30.19,20. Had he chosen *life* his earthly existence would have endured for a millennium,¹⁶ and then with a transformed body¹⁷ he would have been translated to a higher existence¹⁸. Such would have been the bliss of his family and friends that they would have felt no pain at his going, only joy.¹⁹ As it was, Adam chose *death*. He began to experience its consequences the instant he sinned. His earthly existence continued for 900 years but its close was marked not by translation but by the grave, and bodily decomposition,²⁰ and by the sorrowing of those left behind.

Much of this is speculation, but it is *biblically_guided*.

NOTES

- 1 Gen. 3.5,22.
- 2 Henri Blocher, *op. cit.*, p. 132 cf. 2 Sam. 14.17; 1 Kings 3.9.
- 3 J. Calvin, *Commentary on Genesis* (1554), p. 118.
- 4 G. von Rad. *op. cit.*, p. 89.
- 5 *Ibid.*, p. 97.
- 6 Matt. 26.38,39; John 6.38; 8.29; Heb. 10.5,7.
- 7 Deut. 32.20 (RV); Hab. 2:4; John 3.16; Rom. 1.17.
- 8 Deut. 6.4,5; Ps. 91.9,14; John 14.15; Gal. 5.6; 1 Tim. 1.5; 1 John 4.16; 5.3.
- 9 Henri Blocher, *op. cit.*, p. 184.

- 10 Alan Hayward, *op. cit.*, p. 199 (my italics).
- 11 Deut. 30.19,20.
- 12 Cf. Jesus' words in Matt. 10.28.
- 13 Job 18.14.
- 14 1 Cor. 15.56; cf. also Heb. 9:27.
- 15 See also John 5.24; 11:26; Rom. 8.2,6.
- 16 In fact, Scripture records that it did (approximately). This maybe a clue to the significance of this otherwise enigmatic period; see the references in Rev. 20.1_10. Isaiah foretells that in the messianic 'new heavens and new earth' the earthly life of the redeemed will be of this order (Isaiah 65.20,22). On this supposition the righteous will live the millennium through.
- 17 1 Cor. 15.50_54; Phil. 3.20,21.
- 18 Heb. 6:20.
- 19 Cf. Luke 24.52,53.
- 20 Our Forerunner, restoring what Adam lost, Jesus never 'saw' this – Acts 2.24,27.

The Ages of the Antediluvians >>[back home](#)

Genesis records that before the Flood men lived to an extremely great age: Adam to 930 years, Seth to 912, Enosh to 905, Kenan to 910 and the longest of all, Methuselah, to 969. Noah himself was 600 when the Flood came, and he lived 350 years after it. These figures are certainly surprising; but coming in a book of the stature of Genesis they are given with a 'painful deliberateness' (von Rad) which should preclude us from dismissing them lightly. One thing seems certain: the genealogies of which they form part are not intended to be regarded as unbroken chains,¹ enabling us to calculate how long ago Adam lived. That is not their purpose. They constitute not a line, but a dotted line, giving historical concreteness to the narrative, keeping it well 'earthed', and enabling us to follow the course of God's redemptive purposes as they unfold. Thus the narrator picks out ten generations from Adam to Noah, then another ten from Noah to Terah, whose death in Haran marked the call of Abraham. This follows the same pattern which Matthew palpably uses in giving the genealogy of Jesus, which he divides into three periods of fourteen generations each (perhaps for mnemonic purposes). Matthew is giving us a 'dotted' line (as comparison with the O.T. history shows), and there is no reason to doubt that Moses is doing the same. That Noah should have lived to see Abraham attain his sixtieth year, and that Shem his son should have been alive when Jacob and Esau were born (as the assumption of a continuous line would mean),² and yet that there should be no shadow of a suggestion of this in the narrative, is surely quite incredible! Archbishop Ussher's date of 4004 BC for the creation therefore need not be taken seriously.

This leaves us the problem of the individual longevities. Other nations have similar traditions; in particular the Sumerian King List has records of ten 'great men' who ruled before the Flood and whose reigns were of the order of 30,000 or 40,000 years!³ The existence of these traditions is, somewhat strangely, held to throw doubt on the biblical record; but it could equally well be held to lend it support. In fact, the latter seems the more reasonable view; if other nations had no such traditions it would surely be more difficult to take the biblical record seriously. However, it is worth remarking that there is sometimes an element of doubt about the meaning of large numbers in the Old Testament. The census figures in the book of Numbers are a case in point, and there is an interesting discussion about these by Gordon Wenham.⁴ Until further light is thrown on the question it seems wisest to assume that the author intended the figures we now have (for longevities) to be taken at their face values. The prophecy of Isaiah 65:17_25 seems to imply that the Messianic age will again see such extended life spans. There may possibly be a hint of the change in man's tenure of earthly life in the '1,000 years' and the 'three score years and ten' of Psalm 90 (verses 4,10).

NOTES

1 See the comments of D. Kidner, *op. cit.* p. 82.

2 G. von Rad, *op. cit.*, p. 72.

3 'Genealogy', NEW BIBLE DICTIONARY (IVP, 1980).

4 G. Wenham, NUMBERS, AN INTRODUCTION AND COMMENTARY (IVP, 1981).

The Flood >>[back home](#)

Although the Flood is not the subject of the present essay this is a suitable place to comment briefly about the biblical record. An ill-conceived attempt is still being made to implicate the Flood with the geological record, i.e. to imply that the fossiliferous strata which are the professional province of palaeontologists were all laid down in this catastrophe. It is a consequence of this view that the earth is very young, a mere few dozen millennia at most. If this interpretation of the record is sound it puts the Bible in embarrassing conflict with the well-established and well-authenticated scientific view that the earth is very old indeed. However the view in question cannot be regarded as exegetically sound for at least two good reasons. First, it magnifies the geological significance of the Flood far beyond anything the record itself warrants. It reads into, rather than out of, Scripture. Thus nowhere does the Bible suggest, even remotely, that geologically_vast quantities of rock and detritus were shifted by the waters, nor that violent earth movements occurred on the scale required. Second, and more seriously, the view referred to materially displaces the focus of concern of the biblical narrative. For the purpose of the divine Preacher in this sermon (as always) is to give priority to spiritual realities rather than physical ones,¹ and the interpretation in question acts arguably to reverse this intention. There is every reason to believe that the phrasing of the narrative is designed to emphasize the point that when God eventually acts in judgement He does so with finality and completeness; nothing escapes, except the righteous remnant.² It is for this purpose I believe, that the waters are said to have *'prevailed so mightily upon the earth that all the high mountains under the whole heaven were covered; the waters prevailed above the mountains, covering them fifteen cubits deep'*.³ There was no possible escape. *'By which means, the world that then was, being overflowed with water, perished'*.⁴

Scientifically, and I believe in entire loyalty to the biblical record, the narrative can be understood as follows. The cradle of civilization in which the action took place was the flood plain of the great rivers of the Euphrates_Tigris system, an area about 400 miles long and 180 miles broad (650 km by 300 km). To east and west the land rises to elevated plateaux, and to the north to the high mountains of the kingdom of Ararat (Urartu) near Lake Van. The flooding was caused by torrential rain occurring simultaneously with huge tidal waves from the Persian Gulf, perhaps caused by submarine earthquakes ('the windows of heaven' and 'the fountains of the great deep'). The waters surged over the river plain, covering all human settlements; even the high points of the plain were submerged ('fifteen cubits deep above the mountains').⁵ As the Ark was borne up and carried northward towards the high ground of Ararat, whichever way the occupants looked out there was nothing but water ('under the whole heaven'). Eventually the Ark grounded in the foothills of Ararat, a resting place not located with any great precision. The raven found the sodden land to its liking; the softer dove preferred to wait till things were more hospitable. As a wind continued to drive the waters back and the land became dry, the human occupants emerged and civilization began again around a new centre.

This schema may not be the only possible interpretation of the text on the physical level, but it shews at least that the narrative is scientifically credible. Bearing in mind the purpose of the narrator, the 'universalist' language ('all the high mountains under the whole heaven', 'every living thing . . . man and animals. . . and birds of the air died') is no insuperable obstacle – compare the similar universalism of Gen. 41.57; Luke 2.1; Acts 2.5; Col. 1.23. It is the sort of impressionistic language the reader is expected to take in his stride surely, a natural way of conveying the sense of the severity of the divine

judgement. Again, as with the story of Eden, the fact that the biblical narrative has a parallel in for instance the Gilgamesh epic of ancient Babylon is no compelling reason for denying its status as divinely_given; the existence of other stories (theologically much inferior) can be taken as evidence *for* quite as convincingly as evidence *against*.

I believe that to understand things in the way suggested is to do justice to the genius of Scripture; to try to interpret them as the 'Flood geologists' do is not. For these reasons I have no hesitation in agreeing with those⁶ who see the Flood as a widespread but not universal inundation, obliterating a particular civilisation but nowhere near covering the globe. Rather, it is to be seen as an act of purgation designed (like the wilderness judgement and the Babylonian exile)⁷ to preserve a godly line through which eventually the promised Deliverer should come. It had no need therefore to be more global than the human race.⁸

NOTES

1 See Matt. 6:31-33; 10:28; Luke 12:15; John 6:27; 2 Cor 4:18.

2 This point is often made forcefully in Scripture: cf. Gen. 19:24; Isaiah 10:22,23 quoted in Rom. 9:27,28; Nah. 1:7_9. See also 2 Pet. 2:5_10.

3 Gen. 7:19,20.

4 2 Pet. 3:6 RV; cf Isaiah 28:17_22; Jer. 11:11.

5 Heb. *har* means a mountain or hill. In Gen. 22:2 quite a small hill is clearly indicated, probably the site of the future temple. Cf. also 'mount Zion'. The common word '*erets*' is twice as often translated 'land' as 'earth'.

6 Alan Hayward, *Creation and Evolution* (Triangle Books SPCK, 1985); Dan Wonderly, *God's Time Records in Ancient Sediments* (Crystal Press, Michigan 1977); Davis Young, *Christianity and the Age of the Earth* (Zondervan, Michigan 1982).

7 Num. 14:26_32; Isaiah 10:21_23; Matt. 24:37f.

8 For a fuller discussion see the article 'Flood' in *The New Bible Dictionary* (IVP, 1980); also *Genesis* D. Kidner (IVP, 1967).

The Problem of Evil >>[back home](#)

The doctrine of God as Creator sooner or later encounters the demand of theodicy: how can God's goodness be vindicated in a world of sin and suffering? This is not the place to attempt such a vindication; in any adequate sense only God Himself can do that. But a few remarks may be appropriate,

Secularism does not escape the problem. It only changes its thrust and makes it less easy to define. In place of a God who allows Himself to be challenged and questioned¹, secularism offers us only a shapeless, nameless, impersonal silence with which we must wrestle in the dark, uncomprehending and without hope. Scripture in no sense evades the problem (see the book of Job), but neither does it offer us here a final answer. However, it makes it intellectually bearable for the present, and experientially even something to be rejoiced in ². The 'bearable' aspect we must briefly consider.

The interpretation that has been given of the primal creation means that the predatory habit, pain, fear and death were features of the animal world before the coming of man. They cannot be explained therefore as the consequences of man's sin; they were a transitory stage in the full implementation of the plan of creation, as in a similar way, darkness and formlessness had been a transitory stage in the progress to light and life. The plan, the Bible indicates, envisages something inexpressibly glorious ³ as a consummation which will fully justify the suffering and evil ⁴. But, we may still ask, how will this final outcome justify things? Before I attempt a reply I must confess that (unlike those with whom I have crossed swords), I accept that the human mind has great limitations, and that my best efforts will be miserably inadequate. Still, I am bound to try.

For answer we may turn to the great prophecy of Isaiah 11.1-9. In the *palingenesia* ⁵, when God makes all things new, it will be *the universal knowledge of God* which secures 'fullness of joy' and 'pleasures for evermore' ⁶ for all God's creatures. But the Bible elsewhere seems to imply that the sort of knowledge this means – we might call it a vivid personal understanding of the Divine love ⁷ – is impossible apart from the actual experience of suffering⁸, and that this conclusion is true in an absolute sense and not merely because of the accident of a fallen world. For how could God commend His love to us if we had not been sinners? How could Jesus Christ have manifested the 'greater love' ⁹ if we had not been in mortal need? The father in his parable ¹⁰ was able to show his love to the younger son who had been lost *because* he had been lost; what avenues were open for him to do so to the correct elder son in the same degree? None, so far as we can see. This line of thought, stemming from the suggestion that the primal creation contained elements of pain, may provide a clue as to why the Creator has allowed evil at all in His world. If knowing the divine love is the ultimate blessedness for the creature, and if the divine love can be known fully only through the experience of sin, suffering and forgiveness¹¹ (as the prodigal son came to know it), then we have here a theodicy which not only goes some way to explaining the mystery of evil, but which also justifies the appellation 'good' to a creation 'subjected to futility'. And this is very much to our present point.

This opens up an interesting consideration. The suggestion is often made that God in omnipotence created man with the power to disobey, because only so could man yield the obedience of that love which the New Testament calls *agapē*, the love which chooses its object as esteemed and precious. Man chose to disobey, the Bible tells us, esteeming 'having his own way' more precious than friendship with his Maker. God redeemed man

at great cost to Himself,¹² the Bible goes on to say, and will bring him ultimately to glory. ¹³ This raises another question for our consideration: what will prevent it happening all over again? Man in glory will presumably still possess power to disobey, else how could he *then* exercise *agap*? What will defend him from doing again what man in Eden did? After all, some of the angels fell! The only answer the Bible seems to suggest is that it will be the remembrance of the redeeming 'love of God in Christ Jesus our Lord' that forever fixes his will in the right direction. ¹⁴ But this answer has very far-reaching implications.

It seems to mean that the settled loyalty throughout eternity of the human citizens of God's heavenly kingdom is *necessarily dependent on prior sin and suffering*. The rational creatures who comprise it will have power to disobey, as Adam did, but will never do so because, unlike Adam, they see in the midst of all '*a Lamb standing, as though it had been slain*',¹⁵ the ever-present reminder of '*the breadth and length and height and depth*' of the love of the Creator for the souls He has made, a love holy and righteous too.¹⁶

The Bible, to conclude, does not give us an overall picture of an ideally-perfect creation that unfortunately went wrong and had to be redeemed as an originally-unintended consequence. Suffering and redemption, infinitely costly, were part of the plan from the very beginning for both Creator and creature.¹⁷ *Only so* could everlasting blessedness be secured, because *only so* could the divine love be made fully known. For our present study it is worth repeating that the important point is that this theodicy goes far towards justifying the verdict, '*God saw . . . that it was very good*', for a primal creation that contained predation, pain and death. These words are a great affirmation of the worthwhileness of it all, whatever the appearance (cf. Rom.11.29-36).

The "open mind"

Before I conclude I would like to refer to an interview ¹⁸with the very gifted brain scientist, Baroness Susan Greenfield CBE, Director of the Royal Institution since 1998 and Professor of Physiology in the Pharmacology Department at Oxford University.

She confessed she does not believe in God, but maintained an "open mind" about things. "I've sat through many science_religion ding_dongs" she says, "and they strike me as a complete waste of time. No one is going to change their views". [What about C. S. Lewis?]. "The religious person can't articulate why they believe what they do: they just do". She then went on to make a revealing statement.

"The only argument I find halfway persuasive is: Look at the evils religion has brought . . . Look at Northern Ireland . . . But religion is not the only thing that creates social division". Let me reply briefly to this.

She allows that other things besides religion bring evils; atheism (e.g. Stalinism) has been of the first rank. But there are two points she doesn't mention: one is the greater *blessings* religion has also brought (e.g. it has pioneered hospitals, founded orphanages. and worked for the abolition of the slave trade); and the other is that it has also spawned *hypocrisy*. In both of these respects 'religion' easily outclasses atheism. *But both flaw her case*. That the first does so most would agree; but that the second does so too is easily overlooked. For hypocrisy is false pretence about being something which is praiseworthy. That atheism doesn't similarly spawn hypocrites is therefore hardly to its credit. As an 'old journalist' once wrote. "Men don't forge bus tickets: they forge treasury notes". Anything good attracts imitations; and especially when the good thing is a costly way of life, they are likely to be mere imitations. That is why it is so important to go back to the

beginning for the genuine article. I wish I could persuade those like Prof Greenfield, puzzled but of open mind, to examine honestly the wonder of Jesus of Nazareth, the evidence for His Resurrection, and the 'why' behind the willingness of Paul, Peter and many others in following Him to suffer the loss of all without retaliation. She might find it was worth all the effort, as I did.

NOTES

- 1 As Job, Jeremiah and Habakkuk did and were answered with hope and encouragement; see Job 38.1f; Jer. 12.1,14f; Hab. 1.2f; 2.2.
- 2 Hab.3.17_19; Rom.5.3_8; 2Cor.12.9,10; Heb.12.11
- 3 Rom. 8:20,21.
- 4 Rom. 8.18; 1 Cor. 15.54.
- 5 The 'new world', Matt. 19.28.
- 6 Ps. 16.11.
- 7 See Eph. 3.17_19; Rev. 21.3,4.
- 8 John 10.17,18; 12.26; 15.9_11; 16.20_22.
- 9 Rom. 5.8; John 15.13.
- 10 Luke 15.11 f.
- 11 Is this the significance of Paul's amazing and profound statement in Rom. 11.32 ?
- 12 John 3.16; Rom. 8.32.
- 13 Rom. 8.30; Heb. 2.10.
- 14 Rom. 8.35–39; cf. also Rev. 1.5,6.
- 15 John 1.29; Rev.5.6; 22.1. The 'Lamb . . slain' is a way of speaking of Jesus Christ crucified and raised from the dead.
- 16 Eph.3.18; John 17.11,25
- 17 Matt.25.34; 1Cor.2.2,7,8;. Eph.1.4_10
- 18 Greenfield, Susan *Brain Teaser*, THIRD WAY 23, Oct.2000,pp.18_21

Man as questioner >>[back home](#)

When a very gifted writer like Richard Dawkins rejects the query "Why is there something rather than nothing?" 1 as "a vacuous existential question" it suggests an unwillingness to face up to it on a serious intellectual level. The question has exercised many fine minds; it cannot be so lightly brushed aside. The weakness of his response is that it can so easily be turned on its head. He goes on to protest that it is "of course quite illogical" to maintain that "since science is unable to answer 'Why?' questions there *must be* [my italics] some other discipline that *is*". We may possibly agree; but it is surely equally illogical to maintain that there *cannot be*. But it is by no means illogical to maintain that there *may be*, which is more to the point; it is certainly not if there is a purposeful Mind behind things. Prof Dawkins is here making the mistake of 'begging the question', of assuming what he wants to prove. He goes on in the same strain, "You are right to ask the 'Why?' question of a bicycle's mudguards or the Kariba Dam; but at the very least you have no right to assume that the 'Why?' question deserves an answer when posed about a boulder, a misfortune, Mt. Everest or the universe". Why has he any right then to assume the opposite? For he is here doing so, and with a vengeance. Again, he regards asking the obsessive 'Why?' question about things as "natural", "nearly universal", for an "animal that lives surrounded everywhere by cars, tin openers, screwdrivers and pitchforks". But he then goes on to imply that the obsession _ "held by the vast majority of people who have ever lived" 2 – is a mere relic of our "primitive animism". What then in those primitive animistic minds took the place of tin_openers etc. in fuelling this obsession? Does he really mean that "primitive animists" were *already* being prompted to ask the profound question "Why is there something rather than nothing?" merely by looking at their sharpened sticks or chipped flintstones? The perverse 'obsession' with 'purpose', this "nearly universal delusion", which previous famous scientists (even Nobel prizewinners) "got totally and utterly wrong" 3, must have possessed some immense survival value to have become so nearly universal!

NOTES

- 1 RIVER OUT OF EDEN p.97
- 2 *ibid.* p.96,97,98; THE BLIND WATCHMAKER p.xii
- 3 THE SELFISH GENE p.

The Anthropic Principle; and Steven Weinberg

[>>back home](#)

The Anthropic Principle addressed the fact that our Universe has *very precise* relationships between its fundamental physical constants, and that this has seemed a vital factor in the appearance of life. In its 'strong' form (discussed in chap. XI), this was early taken to mean that our Universe must have been *intelligently designed* for life. There are scientists who still believe this, but they are hardly the majority. Other views are logically possible. Common are the 'Many Worlds' hypotheses (see Steven Weinberg, DREAMS OF A FINAL THEORY, Hutchinson, 1993). These hold that a vast number of other universes also exist through 'statistical fluctuations' like that which produced ours, each having its own spacetime, matter, physical constants, and laws governing its evolution. But very few of these universes probably have the stringent inner congruities necessary for developing life and intelligence. The 'Many Worlds' views replace one *designed* Universe with a vast number of *undesigned* ones with Chance doing the rest, and man finally turning up. Ours might perhaps be the only case of this ever to have happened. All this seems to make a Creator unnecessary – at least to some.

At the start of his chap.11, *What about God?* Steven Weinberg writes:

"If there were anything we could discover in nature that *would* give us some special insight into the handiwork of God, it would have to be the final laws of nature. Knowing these laws, we would have in our possession the book of rules that governs stars and stones and everything else. So it is natural that Stephen Hawking should refer to the laws of nature as 'the mind of God.'"(p.193, italics his)

In the course of this chapter accordingly he seems to suggest that the Superconducting Super Collider 1 might be able to crack the secrets of the 'mind of God'. My reaction to this is to recall the words of Jesus Christ in a similar connection: *I thank you, Father, Lord of heaven and earth, because You have hidden these things from the wise and prudent and have revealed them to babes. Even so, Father, for so it seemed good in Your sight* (Matt. 11.25,26). Those words reflect the consistent testimony of the whole Bible; 1Sam.3.1_10 and John 20.11_18 exemplify this.

Consider man himself, man with a 'mind'. Isn't his *mind* an element of "the handiwork of God", in fact the one of whose existence he himself has the most direct knowledge and the most invincible certitude? (cf. Descartes' foundational *Cogito ergo sum*²). But Hawking and Weinberg seem surprisingly to have overlooked this! This cannot be right. "The final laws of nature" must surely include along with the quantum_gravity laws and the physico_chemical laws governing his body, *the inescapable moral laws addressing his life and behaviour*. Where is the logic of excluding these as mere 'religion'? For quite contrary to Weinberg (p.204), all the major religions of the world *emphatically do here "point radically" in the samedirection*. The great biblical command is typical, *You shall love your neighbour as yourself* (Lev.19.18; Matt.19.17_19). As C. S. Lewis once said, Moses wasn't sent to give the Israelites the moral law but to remind them of it; *it is still in essence universally held by all honest people*, and to exactly the same degree as agreed science is. But according to the Bible man chose to rebel, and a rebel he still is (Gen.2.17; 3.6; Rom.1.18ff). The fact that he was able to do so doesn't make moral law a lesser thing than physical; it was the profound accompaniment of the unique gift³ of a thinking mind. He had thereby the ability to be (or not to be) a fellow_worker with God (1Cor.3.9); this is the high point of the biblical view, summarised in the great statement of Deut.29.29:

The secret things belong to the LORD our God, but those things which are revealed belong to us and to our children for ever, that we may do all the words of this law

When we seek to explain the elemental source of the 'how' and 'why' behind this, religions do disagree; but things are quite similar in science. Einstein and Bohr disagreed at this level _ and Weinberg and Mayr still do (pp.41,42). Science and religion differ in that one judges what *is*, by the senses; the other judges what *ought to be* by the conscience. But the lines run parallel. In this connection, Weinberg's remark about "the lessons of religious experience" which "can be deeply satisfying" and which therefore are to him "indelibly marked with the stamp of wishful thinking" (p.204) is singularly inopportune. In genuine religion (especially biblical religion) experience never has meant a quick reward "deeply satisfying" and so "indelibly marked by wishful thinking". Has he never read John Bunyan's *Pilgrim's Progress*, one of the most enduring of all books? Weren't many of the first Christians thrown to the lions? And still further back did not Stephen confront the synagogue leaders with the words "*Which of the prophets did your fathers not persecute and kill?*" (Acts 7.52). These things hardly support *this* Steven's thesis about the influence of "wishful thinking"! (see John 12.24_27, and Acts 14.19_22).

Weinberg suggests that "all our experience throughout the history of science has tended . . . toward a chilling impersonality in the laws of nature". At the lowest level, is this how he understands Kepler, Newton, Clerk Maxwell, Faraday and many others today? Could he say what sort of observation *would* impress him as "a sign of the workings of an interested God"? It might make his search at once more rewarding if he did. Unlike mere physical sense experience, experience of persons is very dependant on our approach; and (in the Bible), God is a Person:

" you will seek the LORD your God, and you will find him if you seek Him with all your heart and with all your soul (Deut.4.29).

This is the Bible's answer to his remarkable comment, "If there is a God that has special plans for humans, then He has taken very great pains to hide His concern for us" (p.200). The Bible puts it exactly the other way round; it is man who hides himself from God (Gen.3.8). I wonder how hard Steven Weinberg has ever tried to find Him? (I almost said 'put the matter to experimental test?'). He might be very surprised if he did (see note 4 below). But one thing I greatly admire him for is his attitude of "caring about such things" as these (p.205); many despise them. I truly wish him well.

NOTES

- 1 A vast and vastly expensive installation for which he was among those seeking Government funding
- 2 "I think, therefore I am" (Descartes).
- 3 A kind and wise ruler would never give his subjects fast automobiles for pleasure without imposing a highway code, as C S Lewis observed.
- 4 Paul's speech to the Stoics and Epicureans in the Areopagus at Athens is very apposite here (Acts 17.16_34). See also Luke 24.

Chaos Theory >>[back home](#)

Chaos Theory is a striking development in physical theory that began in the 1970's in connection with weather prediction; many will remember the conclusion that a butterfly moving its wings on one side of the globe could, if conditions were right, be the cause weeks later of a hurricane on the other. The theory relates not to minute nuclear systems as Quantum Theory does, but to the common conditions in which we live and act. The weather is an example, but the scope of Chaos Theory is widening very rapidly every year, even extending to the Arts. It is of interest in the present context because it highlights the fact that the outcome of the common affairs surrounding human life is really unpredictable with certainty; we can only guess it on the basis of probability. If a butterfly's wings could set off a hurricane thousands of miles away, how could anyone predict the event before, or positively trace it back afterwards to its source? The Bible refers to such things in two ways. Thus, of one great event in history (the Exodus) it says, "Your way was in the sea, Your path in the great waters, and *Your footsteps were not known*" (Ps.77.19,20; cf. Luke 13.1_5); and of man's right response to this realization, *the just shall live by his faith* (Habakkuk 2.4), i.e. by believing that all things are in God's hands and living accordingly (cf. Dan.6.10ff; Matt.2.12_16). Clearly, Chaos Theory makes nonsense of the habit of thinking that God is only in the things we can't explain (the old 'God of the gaps' fallacy); if He is concerned at any time, He is concerned at all times. Two explanations of say the storm that wrecked Jonah, the Bible's (Jonah 1.4) and one conceivably supplied by a meteorologist, are therefore not necessarily mutually exclusive; the Bible can accommodate both (cf. Exod.14.15_21). But when He chooses God can act in ways which permit no misunderstanding; Chaos Theory then doesn't get a look_in. The death of the firstborn (Exod.11.4_8; 12.29,30) is a case in point, and supremely, the Resurrection of Jesus Christ (Luke 24.30_43).

Chaos Theory incidentally predicts that the outcome of a physical event may be humanly unpredictable not merely in practice, but also in principle. For an interesting account see 'New Ideas of Chaos in Physics' by J T Houghton, *Science and Christian Belief*, 1 (1), 41_51, 1989.