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ABOUT THIS JOURNAL

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FAITH
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A Journal devoted to the study of the inter-relation of the
Christian Revelation and modern research

AGM

The Annual General Meeting of the Institute was held at Chelsea College, Mantresa Road, London, SW3 6LX on Saturday 19 May 1979. In the absence of the President, Professor Robert Boyd, the former President, took the Chair.

The Minutes, previously published in this JOURNAL, of the Annual General Meeting held on Saturday, 20th May, 1978, were taken as read and adopted.

On the nomination of the Council, the President and the Vice-Presidents were re-elected for further terms of office.

Professor R.L.F. Boyd, Mr P.E. Cousins, and Mr David Mitcheson, who formally retire from Council were re-elected for a further period of service.

An Honorary Treasurer not having yet been appointed following the death of Mr Francis Stunt, Mr Brian Weller, the Assistant Secretary, presented the Annual Accounts and Auditor's Report for the year ended 30th Sept. 1978, which were adopted *nem. con.*

Messrs Benson, Catt and Co. were appointed as auditors.

NEW MEMBERS

In order of application. (The last list was published in vol. 104, p.75)

Fellows

Colin Archibald Russell M.Sc., Ph.D., C.Chem., F.R.I.C. Reader in History of Science & Technology, The Open University	Bedford
Reginald Fell B.A. Honours	Hampton, Middx
Robin Coombe Nicoll B.A. Honours	Tewkesbury
Dr. Peter George Nelson	Hull
Dr. Gordon Robert Clarke	London S.E.13
Prof John T. Houghton, M.A., D.Phil., FRS.	Oxford
Dr. John David Barrow	Oxford
Dr. E. Harold Roy	Ohio, USA
Anthony Clive Leech	Thetford
David C.P. Turner, LL.B., A.K.C.	London WC1

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Miss Margaret Claire Harris B.Ed.,	Ipswich, Suffolk
Dr. Adrian E. Lawrence	Luton
Stephen John Burrows	London, SW12
Stephen Creswell Timms, B.A. (Cantab)	Cambridge
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John F. Weldon	San Diego

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Frank Martin Blighe	Southampton
Revd. Eric Jenkins M.Sc.,	Hightown, Liverpool
Mark Ashton Warner	London E5
George A.D. Briggs M.A., Ph.D.	Cambridge
R.J. Evans	Cambridge

Libraries

Irish Christian Study Centre	Coleraine, N.I.
Wilfrid Laurier University	Waterloo, Canada
Newbold College	Bracknell
Bethell Seminary	St. Paul, USA
Kings College Library	London, WC2
	(revived)
Wheaton College	USA (revived)

SYMPOSIUM

19th May, 1979

Ideology And Idolatry in British Society

CHAIRMAN: Dr. Howard Davis, Ph.D., *Lecturer in Sociology,*
University of Kent, Canterbury

SPEAKERS

David Lyon, Ph.D., *Senior Lecturer in Sociology and Social Policy,*
Ilkley College, Progress, Manipulation and the Welfare State.

Richard Russell, M.Ed., *Research Sociologist, Derby, The Cult of*
Education.

Alan Storkey, M.Sc. *Head of Department of Social Studies, Worksop*
College: formerly Director of the Shaftesbury Project, The
Image: Substance and Illusion in the Media.

Tony Walker, Ph.D., *Self-employed Sociologist, Bath, Salvation and*
Work: A Christian Critique of the Modern Ideology of Work.

It is hoped to publish these papers in this JOURNAL in due course.

News & Views

MORE 'CREATIONIST' LITERATURE

We have had occasion previously to refer to some of the strange ideas current among American 'creationists' but now invading this country (see 104, 6-8; also article by John Byrt 103, 158-188); we also referred earlier (this JOURNAL, 104, 77) to the forthcoming magazine *Biblical Creation*. The first (very carelessly edited!) issue of this reached us later. Here we found the Morris and Whitcomb (see this JOURNAL 98 (1), 11, 43; 100, 166) approach to biblical teaching on origins highly commended because these writers "sought first of all to determine from Scripture what - if anything - it had to say about origins and then to examine the scientific data in that light... it is the method that is all important, the result of our faith that the God who made this world is the God who speaks in Scripture."

David Watts first outlines some scientific issues - and there are reviews of D.A. Young's *Creation and the Flood* and of J.F. Coppedge's *Evolution: Possible or Impossible?* (reviewed in this JOURNAL 101, 179). About half the issue, of about 30 pages in all, consists of an article by Noel Weekes on *Interpreting Genesis: The Hermeneutical Problem of Gen. 1-11* on which we comment below.

Against the background that "care is needed that an outside standard be not imposed", the Genesis narrative is discussed with care. As a result some commonly held interpretations are adversely criticised. The early chapters of Genesis cannot be dismissed as poetical, we are told, nor are the day-age theory, or the gap theory viable. The days of Genesis must be literal for "the commandment [to keep the Sabbath] loses completely its cogency if they are not taken literally". Nor may we dismiss the seven days of Genesis because the Hebrews were accustomed to this pattern of labour -- a view which makes God conform to an already established human pattern. It is emphasised that this point is crucial to the distinction between true and false religion. "Scripture is its own interpreter".

The author concludes by reflecting that all attempts to take Genesis non-literally "diminish the right of Scripture to be its own interpreter" and he reflects, "I suspect that the real debate is not hermeneutical at all. If it were then it would have been decided long ago by a comparison of Scripture with Scripture. The real problem is that we as Christians have in a double sense lost our historical perspective. We have forgotten that the church has always been under pressure to allegorise Genesis so that it may conform with Plotinus, or Aristotle, or some other human philosophy. We have treated the problem as though it were a modern one and that we alone have had to face the onerous task of holding a view of cosmic and human origins which is out of sympathy with the philosophical premises of our culture. We have forgotten too that until our Lord returns we face strife and conflict in this world. We have sought to avoid that conflict in the intellectual realms. We have accepted the claim of humanistic thought that its scholarship is religiously neutral, when the Bible teaches us that no man is religiously neutral. ... In that total warfare, scholarship is no mutually declared truce". (This last point is the theme of Stanley L. Jaki's, *The Road of Science and the Ways to God*, Gifford Lectures 1974-76, Scottish Academic Press, 1978, but Jaki does not find it necessary to adopt highly unorthodox scientific ideas as a result.)

Christians who hold "that God expressed himself in the thought forms of the day" are censured. This view, we are told, is the error of Bultmann who "argues that the resurrection narratives are expressed in terms of concepts held in that day which cannot be taken literally today. Here evangelicals typically maintain a great inconsistency, being ready to accept a form critical method when it applies to the OT but not to the NT." In the same way Aquinas claimed that "the biblical texts which contradicted Aristotle should not be pressed as the Bible was not written in technical philosophical language".

One wonders if this kind of approach will prove helpful to students for whom this magazine is intended. The fact, surely, is that even those who most loudly proclaim that "science must never

influence the interpretation of Scripture" (quoted from Leslie, this JOURNAL 1936, p 63) are in fact, so influenced. To understand Scripture aright we do well to make use, not only of Scripture itself, (and this is foremost) but of all God-given knowledge made available through biology, anthropology, linguistics, psychology, archaeology, physical science etc., in fact all relevant science in the widest sense of the word. Even those Christians who insist most strongly that science must not enter the picture, do in fact interpret Scripture by science when occasion demands. It is elementary biology, surely, and not Scripture alone which tells them that no animal's breath is *literally* a flame (the crocodile's "breath kindles coals, and a flame comes forth from his mouth" Job 41:21); that despite rare Siamese twins a literal animal in a desert is unlikely to survive with a plurality of heads (Ps. 74:14); that snakes are not literally wiser than most men, nor do they literally feed on dust, whilst adders do not literally stop up their ears; and that Levi can hardly have existed literally in the loins of his ancestor Abraham (Heb. 7:10). Likewise it is astronomy which teaches us that the number of the stars is far and away vaster than the number of people who lived in ancient Israel — so that Deut. 10:22 etc., cannot be taken literally, though it is apt enough if it refers to appearance only. Likewise science makes it hard to hold that the earth has four corners (Rev. 7:1). And so on. It is not enough to *assert* that science must not influence biblical interpretation — let those who say it show that they practice what they preach. In this connection we again strongly commend *The Christian Topography of Cosmos an Egyptian Monk* (6th cent.), translated by J.W. McCrindle, 1897.

Issue No 3 of *Biblical Creation* proved more interesting. G.J. McConville discusses the meaning of *yōm* (= day) in Genesis, pointing out *inter alia* that although "there is no evidence in the OT that *yōm* can mean a long period of time", Gen. 1 is unique in so many respects that a unique meaning to the word here cannot be summarily ruled out. B.B. Warfield's article "Darwin's Arguments against Christianity and against Religion" is reprinted. This was based on the *Life and Letters* by his son, but passages then omitted are now available and it seems a pity that BBW's article has not been updated.

The American 'creationist' view is adopted by Dr A.J. Monty White in *What about origins?* (Dunestone Printers Ltd., Newton Abbot, Devon, 1978, £1.80). The first third of the book is an impressive collection of quotations from the Bible which mention creation — this serving to emphasise the enormous importance given to the subject in the Juadaeo-Christian tradition. A later section on chemistry and the origin of life is excellent — Dr White is himself a chemist by training.

It is a pity, however that Dr White adopts the Morris-Whitcomb way of thinking quite uncritically. He seriously holds that the entire universe is probably only a few thousand years old, is quite small — 15 light years across, perhaps — and that at the creation a

little while ago God created countless millions of beams of light converging towards Earth, so giving the impression that they came from non-existent distant stars! Even the hoary 'canopy theory' is mentioned not as a theory, but as a *fact*. As usual in such publications the possibility that Creation was *revealed* rather than created in six days is ignored — much space being devoted instead to demolishing the "gap theory" and the 'day-age theory'. Two pages are devoted to reprinting, in small type, a long list of so-called 'scientific' calculations of the age of the world/universe, due to Morris. The point of this is that since the 'results' vary from a few years to hundreds of millions of years (salt in the sea) or more (radioactive evidence), all scientific evidence on the subject is worthless. Most of the 'arguments' are worthless (over half are of the kind "I eat 1 Kg of food a day and I weigh 70 Kg, therefore I am 70 days old" — applied to concentrations of elements in sea water) and have never been seriously used.

Dr Monty White appears to have a following in England. He was the main speaker at a recent Bible and Science Conference held at the Hayes Conference Centre, Swanwick, Derbyshire. He now issues a bi-monthly *Creation News Sheet* sent free from his address (19 Kidwelly Court, Hendredenny Park, Caerphilly, Mid. Glam. CF8 2TY). A report of the Conference is available from D.J. Rivers, 5 Gallowfields Road, Richmond, N. Yorks.

It is encouraging to note that more of our 'creationist' friends are seeking at last to grapple seriously with the questions they raise. Following R.E. Kofahl's devastating criticism of the 'canopy theory' in CRSQ (1977, 13, 202; see this JOURNAL 104, 6) David M. Harris. ("A Solution to Seeing Stars" CRSQ 1978, 152 (2), 112) asks how it happened that Adam on Day 6, was apparently able to see the stars, although they had only been created 48 hours before and many of them are millions or billions of light years distant.

A possible answer, he thinks, might be that light travelled at infinite speed until the FALL, when it reduced speed to c (300,000 Km per sec.). But on this simplistic view all the stars would have disappeared from view for four years (for the nearest star) and upwards: even the sun would have disappeared for some minutes. The difficulty is resolved by the suggestion that the FALL caused a shock wave which propagated itself into space at a velocity less than c , say $c/2$, and that as the wave encountered light the velocity of the latter was reduced from infinity to c . It is ingeniously suggested that the red shift might be so explained. It is admitted that there is no evidence for these conjectures and biblical teaching that man's sin was not the first sin in the universe is overlooked — the serpent sinned before man!

The idea of the maturely and recently created universe crops up again in CRSQ, 1979, 16 (1), 68. G.R. Ackridge imagines point

charges created suddenly with their fields subsequently expanding at the speed of light. If this were to happen, he says, all the charges would experience irregular jolts as expanding fields from other charges hit them resulting in a gross disorder. Also energy would not be conserved. If the universe was created recently in a mature state we must suppose, then, that charges (or stars etc.) were created with the addition of their fields. Therefore "the light from the distant stars would be created *en route* from those stars at the instant of creation. Therefore, when one observes the light from a star one billion light years away, one does not observe the light that actually left the star one billion years ago. Rather one observes the light that was created *en route* only a few thousand years ago" [Grammer corrected - Ed] In line with these extraordinary arguments J.N. Hanson, a computer expert at the Cleveland, State University, Ohio, argues that the earth is at the centre of the universe and of the Solar System. (CRSQ 1978, 15 (1), 55f, 72; 1979, 16 (1) 83.)

The point is argued by reference to the Bible which never says that the sun is at the centre of the solar system. We are glad to record that CRSQ is not all at this level. Dr Duane T. Gish (1979, 15 (4), 185) has written an excellent, well-referenced, article on the difficulty of holding that life could have originated spontaneously.

Recently we received *The Moon: its Creation, Form and Significance*, 1978 (BMH Books, Winona Lake, Indiana, 46590, 180 pp., 7.95 dollars) by J. C. Whitcomb and Donald B. deYoung. There is much in this book with which we are in profound agreement. The authors take the Bible seriously, including the early chapters of Genesis. Their stated method of interpretation is also commendable (p 66). "The Bible consistently avoids... highly technical teaching of scientific data or concepts. Nevertheless... the Bible provides perfectly accurate description of things by the use of the language of appearance." This point is illustrated with reference to the making by God of the two great lights, sun and moon, and of the stars also (Gen 1:16), the point being that these are what man sees with the unaided eye. The fact that many stars are larger and brighter than the sun is, from this point of view, irrelevant. Similarly the Bible speaks of the sun rising and setting, just as we do today in ordinary conversation. Like the Bible we describe what we see.

It seems extraordinary, however, that these words of wisdom are completely ignored in the sequel. From the point of view of the language of appearance, it would seem obvious that the sun and moon were 'made' when they first appeared through the mists at an early stage in earth's history. But the authors dogmatically insist that they were created out of nothing on literal Day 4. The authors say that God created the heaven and earth in six literal days and though they can quote passages which at first

glance seem to say just this, they are careful not to quote too much. According to the Bible, God *rested* on the seventh day and it is said that He then *refreshed* Himself (Ex. 31:17). Could language indicate more clearly that a Theophany is in view? This is the context of the statement that in six days the Lord 'made' heaven and earth, and the context must decide the meaning of the word 'made' — the Hebrew *asah* is translated (in AV) in nearly 100 different ways, (*do*, is by far the commonest meaning followed by *make*, *offer*, *shew*, *prepare*, etc.).

The point here is that God worked for six days and then rested. Exactly what the work involved we are not told: perhaps He made simple models using stones, wood, water etc. to illustrate the stages (conveniently divided into six) of the original creation. But the work done was not the original creation: it was work done by God when in human form (as in the Garden of Eden) and it was seen to be work just as the later rest and refreshment were seen to be rest and refreshment. We may suppose that Adam (and perhaps Eve) was taught in this way both about the creation and about the need for periods of rest, and that he told his children about what the Lord had done and so the tradition passed down to posterity. (And wonderfully correct the creation story is, at least in the light of recent science. See this JOURNAL 104, 82; 105, 155f.)

This view of the days of Genesis is not novel. It was held I am informed by William Whiston (1667-1752: can my reader supply the reference?) and in modern times by J.H. Kurtz in Germany, by Professor E.H. Naville (this JOURNAL vol. 47), by Hugh Miller the geologist (1802-1856) and by several other writers. (Bernard Ramm, *The Christian View of Science and Scripture*, 1955, p 149 gives a list). It was also expounded by P.J. Wiseman (see this JOURNAL 104, 176, 197).

The language used in Genesis I may suggest that the stages of creation were seen in visions of some kind. Prophets in the Bible saw *future* events as if present: there is no reason to limit this experience to the future. Belief that one is watching some past event is a common experience of mankind and sometimes creation is in view. Zoroaster writes "Then, Mazdah (=God), did I realise that thou wast holy when I *saw* thee in the beginning, at the birth of existence" (Quoted by R.C. Zaehner, *Concordant Discord*, 1970, p 25). Today members of the Mohave tribe will say of the Creation, "I was there: I saw it" (George Devereux, *Mohave Ethnopsychology*, 1969, p. xiv). We are reminded of the Negro Spiritual: "were you there when they crucified by Lord?" Today, with the advent of TV, we often re-experience past history. Adam may have had a similar experience. In his mind's eye — as a result of the Lord's work on the six days including vivid descriptions of past events designed to stimulate his imagination — Adam on successive days (or nights) may have seen God creating the physical universe and biosphere. With the Mohave tribesmen he would have said, "I was there: I saw it".

But Whitcomb and DeYoung ignore all this. For them the Almighty God created all things within six literal days of creation. Man was created on the last of these days and saw nothing of God's great activity. Just after man had emerged out of nothingness, God was already resting and refreshing Himself. What example was this for the keeping of the Sabbath?

The rest of their interpretation is a foregone conclusion. The sun did not even exist until after plants were growing on earth. Creatures multiplied in the sea on Day 5, but even this happened within 24 hours, which the authors hold to be quite reasonable because Aaron's rod budded quite quickly too! There was no evolution of chemical elements in the universe and attempts to date rocks, earth or moon by radioactive means is declared to be "window dressing" (p. 93). That the earth is quite young is proved by the quite rapid rate at which its magnetism is falling: it is impossible to extrapolate backwards more than about 10,000 years. Magnetic reversals are rejected for lack of evidence (but the authors reveal no awareness of the cogent evidence which *does* exist). There is a good chapter on Transient Lunar Phenomena which is inserted to prove that the moon is not dead - though otherwise it hardly helps the 'Creationist' case. The authors seek to show that no scientific explanation of the birth of the solar system (including the moon which seems incidental in this book!) is satisfactory: therefore orthodox science is worthless. References are quite extensive and do not reveal the lack of serious reading which Whitcombe and Morris's *The Genesis Flood* of 1961. There are some fine pictures of Appollo landings in colour. But despite good points the book is likely to do harm: far from taking the Bible more seriously the young thoughtful adolescent will probably think that if *this* is what belief in the Bible entails, the Bible must be sadly astray! One is reminded of our Lord's words about offences.

Though holding strange and indefensible views it is right to add that 'creationist' Christians across the Atlantic are beginning to exert a powerful effect on the establishment. In his excellent *North American Creation Bulletin* (PO Box 5083, Station B, Victoria BC, Canada, 2 dollars p.a.) W.D. Burroughs points out that in a good many areas conventional biologists "are attempting to deal with certain major aspects of evolution theory which have been stressed by creationists": he cites some interesting examples. Much controversy has also, of course, been aroused in the educational field.

PILTDOWN

In a delightful article ("Smith Woodward's Folly" *New Scientist*, 5 Ap. 1979) S.J. Gould of Harvard University asks why Piltdown man came to be so readily accepted by all the leading anthropologists in the early years of this century, though, from the start,

suspicions were abroad, they were ruthlessly suppressed by the Establishment. Even as late as 1940, when Franz Weidenreich, the world's greatest anatomist in his day, propounded that *Eoanthropus* (Piltdown Man) "is the artificial combination of fragments of a modern human braincase with orangutang-like mandibles, and teeth" Sir Arthur Keith scathingly replied, "This is one way of getting rid of facts which do not fit into a preconceived theory; the usual way pursued by men of science is, not to get rid of facts, but frame theory to fit them"! Weidenreich had, of course, hit the nail on the head.

Chauvinism was, of course, involved. French anthropologists gloated over the superabundance of Neanderthals and Cro-Magnons unearthed in their country, but their counter-parts in England could produce nothing spectacular. Clearly the first real men were Frenchmen, the English were a mere offshoot!

The Piltdown skull neatly reversed the tables on the French. Piltdown was much older than Neanderthals and Cro-Magnons, and his brain was larger. Later, in the 1930's, Peking man (also a hoax according to some!) was dated to Piltdown times, but his brain was smaller and of course the living man must have been yellow. Racists were delighted by this new evidence that the whites "crossed the threshold to full humanity long before other people". The longer time available to whites in their evolutionary progress ensured their superiority for ever after.

Before WW1 it was generally supposed that man's pre-eminence over the beasts depends upon his larger brain size: enlargement of the brain must therefore have predated other anatomical changes in the ape-man transformation. Piltdown man, with his human cranium and ape's jaw, provided the needed proof. "The outstanding interest of the Piltdown skull is in the confirmation it affords of the view that in the evolution of Man the brain led the way" said Sir Grafton Elliot Smith (1934).

Accepting the Piltdown skull as genuine, scientists proceeded to doctor the facts, just a little here and there, to make it look less like a fake. Piltdown, as it stood, was just too good to be true - for "no one dreamed ... that human brains might become fully human before jaws changed at all!" So the size of the brain was made out to be a rather less than human, and Elliot Smith claimed to see signs of "incipient expansion in areas that mark the higher mental faculties in modern brains" while Sir Arthur Keith (1948), detected points of resemblance between the brain of Piltdown and that of the "orang of Borneo and Sumatra". Keith also "discovered" new human features in the jaw, in addition to the worn teeth which had been filed down to make them look more human.

For many years Piltdown's keepers at the British Museum restricted access to the original bones. Visiting scientists, such as L.S.B. Leakey, were shown the bones for a few minutes only,

but were not allowed to touch them. After that only plaster casts were available for study. An earlier exposure of the fraud was thus made doubly difficult. (An authority at the BM has queried this accusation.)

Who perpetrated the fraud? Last year, for the first time, Professor William Sollas (Professor of Geology at Oxford, 1897-1937) became implicated (see *Times*, Letters, 30 Oct., 11 and 25 Nov. 1978). In 1978 his successor, Professor James Douglas, died at Oxford at the age of 93. For 30 years he had worked with William Sollas. In a tape left before he died Douglas says that Professor Sollas strongly disliked Sir Arthur Smith Woodward, the keeper of geology at the British Museum. He had previously carried out a hoax on Sir Arthur involving the Sherbourne Horse's head and was determined to hoax him yet again. Sollas ordered potassium dichromate from a supplier to make bones look old and Douglas with an assistant unpacked the parcel, both wondering what the Professor was up to. In fact this chemical was used to make the Piltdown bones look old. Sollas seems to have arranged for Dawson to bring the faked human skull to Sir Arthur, who pronounced it genuine.

Gould does not think this evidence amounts to much. The usual view is that either Dawson (though an unknown person might have fooled him in turn!) acted alone, or that Dawson and Teilhard de Chardin hatched the plot together.

The first Piltdown 'find' took place in 1912, a second in 1915. Teilhard, an old friend of Charles Dawson the 'discoverer', was then "a fun-loving young student". He is suspected because two Mastodon teeth were found among the Piltdown fossils and fragments of one tooth contained 0.1% uranium oxide and so probably came from Tunisia where alone such radioactive elephant remains are known to occur and where Teilhard had himself travelled.

Dawson died in 1916 and by then Teilhard was serving as a stretcher bearer in WW1. By the time he returned to civic life in 1918 the joke had gone too far. Arthur Smith Woodward, Grafton Elliot Smith and Arthur Keith (all three were later knighted, chiefly for their work on Piltdown!) were professionally involved. A confession (assuming he was guilty) in 1918 would also have ruined Teilhard's own promising career. Perhaps silence seemed the better part of valour! We are reminded of the story of the Frenchman George Psalmanazar (1679-1763, see A.L. Maycock, "The amazing story of George Psalmanazar" *Blackwood's Magazine* 1934, 235, 797). GP, as he called himself, pretended to be a native of Formosa, a mythical island the name of which he had invented himself and on which he set himself up as an authority. After pretending conversion to Christianity he was baptised and visited England where the Bishop of London paid him to translate the Bible into 'Formosan' (a language he had also invented!) Later he was sent to Oxford to teach Formosan to prospective missionaries - the

Bishop and other missionary-minded Christians paying his expenses. Eventually his deceit was discovered: he repented and by way of recompense lived an obscure, godly and scholarly life for the rest of his days. "GP's piety, penitance, and virtue exceeded what we read as wonderful even in the lives of the saints" said Dr Johnson. Did Teilhard too, burdened with a heavy conscience, do likewise? A suggestion ...

PURPOSE IN NATURE

The writings of Professor W.H. Thorpe, the Cambridge zoologist, are always helpful and full of interest. This is especially true of his latest book *Purpose in the World of Chance: A Biologist's View* OUP, 1978 £3.95). Thorpe believes that a natural theology must ultimately be possible and that "the only possible basis for a reasonably grounded natural theology is what we call scientific". At the present time conclusions reached by scientists in different fields are often mutually contradictory and this lies at "the root of our present difficulty in constructing a natural theology" but, Thorpe hopes that one day science will be unified and that meanwhile his new book will in its way, provide a pointer to this ultimate unity.

Dealing with cosmology (p. 10f) Thorpe stresses the point that if the universe were not much as it is we should not be here. If the universe was not expanding, or there were no stars, or the proton-proton force differed slightly from what it is, or there was a different ratio between the basic forces of interaction, or the relationships between the fundamental constants of nature were different, the universe would be dead. Even trivial differences in any of these five features would have made the diversity of the cosmos impossible to conceive. Even the elements, on which life depends would mostly not be here, for their synthesis depends upon outbursts of supernovae. "Indeed one can say that the 'Argument from Design' has been brought back to a central position in our thought, from which it was banished by the theory of evolution by natural selection more than a century ago. There seems now to be justification for assuming that from its first moment the universe was 'ordered' or programmed - was in fact Cosmos, not Chaos. So... we have added reasons for considering the 'mental pole' as primary in Nature."

After discussing machines especially with reference to organisms and genetic mechanisms, and effectively criticising Monod's views, Thorpe cites the conclusions of the molecular biologist R.E. Monro, based on lengthy discussions with eminent molecular biologists and philosophers of science. "First, there is no logical justification for supposing that the sequential information in DNA is the *sole* bearer of hereditary information. Secondly, there is no justification for supposing that the specific properties of proteins are the sole means of expression of the

information in DNA." It is quite possible that "hereditary information in higher organisms is carried not only in nucleic acids but also in other informational structures of systems." At present biology is in the state of *normal science* but analogy with other sciences makes it reasonable to suppose "that deep revolutions are still very likely to occur in biology and that such revolutions (when they come) may, indeed must, entail unforeseen changes in the way we look at organisms, including ourselves". (p.27)

As for the origin of life from inanimate matter, "this happening is now seen as so extremely improbable that its occurrence may indeed have been a unique event, an event of zero probability". Even if the uniqueness of the genetic code is the result of natural selection, as Monod suggests, "the extraordinary problem still remains that the genetic code is without any biological function unless and until it is translated, that is unless it leads to the synthesis of the proteins whose structure is laid down by the codes. The machinery by which the cell translates the codes, consists of at least fifty macromolecular components which are themselves coded in DNA. Thus the code cannot be translated except by using certain products of its translation, the occurrence of which, in the right place and right time, seems overwhelmingly improbable". So the discovery of the code "far from solving the problem of the origin of life, has made it... a greater riddle than it was before. We may indeed be faced with the possibility that the origin of life, like the origin of the universe, becomes an impenetrable barrier to science; a block which resists all attempts to reduce biology to chemistry and to physics". So unlikely does it now "seem that the earth can have supplied the necessary conditions for long enough to allow even a reasonable probability of the origin of life here" that some scientists [Crick, Orgel, Hoyle etc.] are seriously considering whether it originated on the earth at all. (pp 25-6.) [We are reminded of the popular idea that scientific progress squeezes God out of the closing gaps in scientific knowledge. It might be truer to say that gaps get wider, leaving more room for God!]

With regard to natural selection, Thorpe wonders whether this principle can "be the whole, or even the main, cause for the increasing diversification and adaptation, indeed the increasing growth of complexity, of which we feel convinced when we study the fossil record". "'Primitive' animals and plants are still with us and amoeba and the primitive algae are 'doing very nicely, thank you'." Often when new forms arose the older forms were not superseded or eliminated. How, then, does natural selection enter the story - or a struggle for existence?

Moreover, in the animal kingdom there has been, in the course of time, "a genuine increase in complexity of structure". But in the plant world this is not nearly so evident; indeed, it is often

not evident at all. Can we really say, for instance, that a pine-tree is less complex and efficient than a willow-tree? Can we aver that a fern is less complex, less well adapted to its environmental needs, than is a thistle or a poppy? There often seems to be no real sense in which such question can be answered in the affirmative." (p 28)

Later Thorpe discusses the coming of self-consciousness. He deals, at length, with attempts to teach chimpanzees to talk. He thinks that if they "had the necessary equipment in the larynx and pharynx, they could learn to talk at least as well as can children of three years, and perhaps older". (p 72) "The most reasonable assumption at present is that, however great the gulf which divides animal communication systems from human language, there is no single characteristic which can be used as an infallible criterion for distinguishing between animals and men in this respect." (p 74) Nevertheless he believes "that the possession of a fully self-reflecting personality in an experiencing self is the outstanding characteristic on which depends the uniqueness of man and from which all else follows".

In a concluding chapter Thorpe insists on the primacy of mind in any ultimate explanation of the cosmos and opts for Process Theology (see D.A. Pailin, this JOURNAL 100, 45) as the theology which best accords with modern findings. Here not all Christians will be in agreement but all will be grateful to him for his forceful insistence on the fact that some dogmas, widely accepted by materialists, are wholly without foundation.

"I HAVE NEVER PRAYED SINCE "

The failure of Christians to give wise guidance on the subject of prayer to young people is well illustrated by an early experience of Professor R.V. Jones (*Most Secret War*, Hamish Hamilton, (1978 p.10). According to RVJ he was taught, when young, to pray for anything that he "hoped would come about, and that of course included passing examinations". In 1928, when still at school, and a member of the Officers Training Corps, he took Certificate A. Not caring much if he passed or failed "I decided" he writes "to experiment by not praying. I thought that I had made a mess of the papers, so it was 'one up' for God. When the results came out I did not even trouble to look at the noticeboard". In fact he had passed with exceptionally high marks. "Although I readily acknowledge my debt to a most christian upbringing, I have never prayed since."

In the course of his book, Jones tells how, on 14 Sept. 1939 Neville Chamberlain, in Parliament, stated, "Whatever be the lengths to which others go, HM Government will never resort to the deliberate attack on women, children and other civilians for the purpose of mere terrorism". The promise was repeated on 15 Feb. 1940.

The Air Force policy at the beginning of the war was based on 'pin point' bombing. It was reckoned that if fuel dumps and war factories were destroyed, the enemy would soon be defeated. But the so called 'pin point' bombing, using star navigation, proved to be extremely inaccurate — sometimes bombs fell 50 miles off target! Within two or three years area bombing was resorted to and all moral considerations were swept aside. This policy was hotly debated by Churchill, Lindeman, Tizard, and others. "Briefly, Lindemann thought that we could [destroy the German will to fight by area bombing] and Tizard was much more doubtful; but it was on the grounds of probable effectiveness and not of morality that the battle was fought." (p.303) After the fearful Hamburg raids which created a fire storm ("The result is complete devastation and the burning or asphyxiation of every living being who is unfortunate enough to be caught") the Germans were stunned, but their determination to win the war was strengthened and weapon production actually rose as a result. At this time really accurate pin-point bombing would have been possible by the OBOE method which had by then been perfected. Even in the raid on Peenemünde priority was given to the destruction of houses and "a substantial proportion of bombs fell... on the camp which housed the foreign labourers, including those who had risked so much to get information through to us. We never had another report from them, and some 600 of them were killed, as compared with 130 or so German scientists, engineers and other staff." (p.346)

The Christian reader cannot help reflecting that the war might who have been a lot more merciful if RVJ had not stopped praying. He had every opportunity to remind Churchill and others that morality does matter and that pledges given to the nation should have been honoured — but he seems to have made no protest. The suffering caused was truly tremendous. (See also D.J.C. Irving, *The Destruction of Dresden*, 1963.)

MEDITATION — A CAUTIONARY TALE

Mr D.C. Manderville writes: Frederic Debuyst, a Benedictine monk, has for some years been Editor of the journal *Art d'Eglise*; contributes an article to the corresponding German-language publication *Kunst und Kirche*, (1979 (1) pp 16-20) on the question of the most suitable physical setting for exercises in Meditation, in the course of which he has a cautionary tale to tell, which I have translated below. Meditation was a subject that he had studied for a number of years, but not practised, and then

I commenced to meditate, at first only occasionally, and then, all of a sudden, during the holiday period, intensely, six to eight hours daily. The results were astonishing: powers of concentration and observation, inner recollection and quiet, spontaneity and accuracy, even in business matters. Much that I had read about in books I was experiencing at first

hand. The inner illumination claimed by followers of Zen was there, and expressed itself harmoniously in my life and work and prayer. After a couple of months however I underwent a rather severe operation; and my so rapidly (and perhaps cheaply) won powers vanished, never to return. The experience was to have its effect on my life style for long after.

A couple of years later I was in Switzerland, and one day attempted with some of my fellow-monks a mountaineering trip. All went well at first, but to reach the summit we had to surmount a huge rock. Half-way up the vertical face I suddenly lost all strength. My legs, and even my heart, would stick it no more. I could neither go forwards or back, there were only narrow hand-holds, and I was not roped-up. Then there came over me the great quiet, the great emptiness, the peace of the Zen, but accompanied by an almost irresistible urge to forget the situation in which I was, to switch it off, and free of all thought and feeling to allow myself to slip into the abyss. I was saved by a sudden burst of bad temper, a very 'christian' form of wrath, as I now believe, which restored to me all my strength and brought me safe and sound out of danger.

I have reflected often over this affair. What is most striking to me is the fact that in a moment of extreme danger no thought of God or of Christ entered my mind; neither of my sin, nor of love — just the pure, all-embracing emptiness. This is not what the desert Fathers, those experts in Meditation, had led me to expect. Since then I have approached the theme with very great caution.

PARAPSYCHOLOGY — A NEW JOURNAL

Psychical Research. The first issue of a new journal *Alpha* (or is the title *Alpha Probes the Paranormal?*) is full of interest. (£4.75 p.a., 6 times a year from Pendulum Pub. Co. Ltd., 2 Serjeants' Inn, London, WC4 1LU). Much space is devoted to strange sightings of UFOs and to the story of Uri Geller, once sponsored by Professor John Taylor, with comments by various authorities on John Taylor's change of mind (he is now a sceptic). In view of the fact that there were no fewer than 60 clear premonitions of the Aberfan disaster, and that there are possibly premonitions of all disasters, it is proposed to revive the British Premonitions Bureau (two similar bureaux now operate in USA) which started to operate after Aberfan but has not been active for two years. Anyone having an apparent premonition is asked to communicate with Alpha Premonitions Bureau, 20 Regent St, Fleet, Hants, GU13 9NR.

Reverting to the Geller effect, John Taylor in a communication to *Nature* stated that of the four forces known to science (weak

interaction, strong interaction, gravitational and electromagnetic) only the electromagnetic could be involved in metal bending. A.J. Ellison (President of the Society for Psychical Research) comments "Unusual electromagnetic fields do not appear around metal benders. That left him in an impossible position, either disbelieving the evidence of his own two eyes that metal sometimes did bend paranormally, or accepting it and having his tidy little world of physics completely upset. Now we know what his choice is! Metal does not bend paranormally!" Professor John Beloff argues that Taylor's decision shows that he has been asking the wrong question. Taylor is asking which of the four physical forces known to us is providing the radiation which causes psi phenomena. As the other three forces are irrelevant the only answer to this is that electromagnetic radiation, perhaps of very low frequency, is the cause. But in fact there is no reason for supposing that any kind of radiation is in fact involved.

An interview with Professor John Hasted (see this JOURNAL, 105, 10) who now has 15 children on his books, is reported. When metal has been bent paranormally it gets harder near a bend (though on rare occasions softer) and this cannot be accounted for, since the effect cannot be reproduced by bending the metal mechanically to the same extent. "It's not a question of some force field coming from the subject; it's the movement of atoms inside the metal." Dislocation of the crystal structure of the metal may occur. [A detailed scientific study of metal specimens bent by paranormal means has been published by C. Crussard & J. Bouvaist, "*étude de quelques déformations et transformations apparemment anormales de métaux*", *Mémoires Scientifique Revue Métallurgie*, 1978 (Feb.), pp.117-130 - Ed]

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Erratum

The title of the section Nazis at Large on p. 163 of Vol. 105 (No. 3) was inadvertently omitted. It is given correctly on the back cover.

SHORT NOTES

Witchcraft in China. Despite political revolutions of recent decades, witchcraft still lingers among China's peasants. According to a Nanking Radio report, two witches recently burned children to death after trying to exorcise evil spirits. (*D. Teleg.* 29 Mar., 1979)

Teleology. David Attenborough's *Life on Earth* (Collins, BBC, 1979, £7.95) is Darwinian in outlook and otherwise uncontroversial. Reviewing it (*New Scientist*, 15 Feb. 1979) Eric Ashby FRS remarks that its prose and fine photographs leave him "with a nagging question. We have banished the word *teleology* from orthodox biology... but has the time come to recall the word from banishment and to let it loose on some of the recent observations on ethology and anthropology?"

Ice Ages. According to the Milankovich theory, now generally accepted, ice ages are best explained by changes in solar heat reaching high latitudes due to small rhythmic changes in the earth's orbit, and orientation relative to the sun. The theory is explained in J. and K.P. Imbrie, *Ice Ages: Solving the Mystery*, Macmillan, 1979 (£6.95). It is predicted that the climate will remain warm for 1000 years to be followed by 22,000 years of cold.

Sir Cyril Burt. Burt's work was acclaimed the "most satisfactory attempt [yet made] to estimate the influence of heredity upon intelligence" (A.R. Jensen): a third edition of his classic book "*The Subnormal Mind*" was published by the Oxford University Press in 1977. His work was endorsed by at least three Fellows of the R.S. and by one Nobelist (Wm. Shockley). O. Gillie, on the staff of the *Sunday Times* started to ask awkward questions in 1974 (see issue for 24 Oct, 1974). A further detailed attack appeared recently in *Science* (D.D. Dorfman, 203 1177, 29 Sept. 1978) and Gillie renews the attack with further evidence (*Science*, 1979, 204, 1035; 8 June). It appears that Burt fudged his figures to suit his theories, published papers in the journal of which he was Editor under the names of research workers who never existed (the ladies Conway and probably Howard), used the names of people in his department attributing to them work they did not do, and steadily increased the number of pairs of non-existent identical twins on which work was supposed to have been done until the all time record of 53 was reached. His classic paper on "Intelligence and Social Mobility" was undoubtedly faked, says Dorfman. Gillie concludes, "Burt's whole corpus of work must now be suspect."

Messages from Space. To date (early 1979) there have been no fewer than 13 projects designed to listen for signals from space, all without result. H. Yokoo and T. Oshima (both of Tokyo University) think that perhaps the people 'out there' do not communicate by radio but by biology. The phage ϕ X174 DNA which attacks enteric bacteria inhabiting the colon and has 121 (i.e. 11 X 11) triplet codons might spell a message. So they have drawn chess-board-like squares, taking the codons in sequence and have blackened in the small squares which 'contain', for example, purine bases. Various possibilities were tried out and it was hoped that if the phages had been made by super-intelligent beings who had sent them to Earth, a figure such as a cross might appear on one of the 'chess boards'! Alas, there was no such luck! Undeterred they propose to continue with these researches. (*Icarus*, 1979, 38(1), 148).

Libraries in Pompeii. Signs of both public and private libraries have been found in the ruins of Pompeii. The underground part of a library was largely carbonised as a result of the destruction in 79 AD, but part is proving readable. (L. Richardson Jr., *Archaeology* 1977, 50(6), 394). Perhaps further evidence of Christians in the city will be forthcoming (see this JOURNAL, 105, 38). Unfortunately Pompeii is now being vandalised by robbers (News media, 12 Jun. 1979) so that evidence may be lost.

Gifted children. At a Conservative Party Conference (13 Oct. 1978) the point was made that, in schools, it is imperative to impress upon gifted children that their unusual gifts should be developed for the benefit of the less gifted. Present policies, which encourage children to develop their capabilities for themselves alone, encourage a rat race in the ensuing generation.

Minerals. Not all Christians believe in a millenium, but those who do must often wonder how it will be possible to secure for the peoples of the world a decent standard of living for 1000 years after the vast wastage and depletion of natural resources by 20th century man. An interesting discovery is reported by J.M. Saul (*Nature*, 1978, 271, 345) which may point to an answer. Saul has been studying relief maps produced from geological surveys. When viewed by light which just grazes the surface, large circles appear, corresponding to diameters of 5 to 500 miles. Taking the whole land surface of the earth, over 1000 of these can be distinguished. It is suggested that they may be relics of scars formed by meteoric bombardment of the earth in very ancient times. In Arizona 19 circles were identified. In this area 24 mineral deposits are known and all lie on or close to the circumferences of circles. Large meteorites may have cracked the Earth's crust, mineral formation taking place in the fractured edges of the craters. This work opens up the possibility of locating many hitherto unknown mineral deposits. Much also has been said about underwater mining. Although great quantities of the more accessible minerals have been used, it is evident that vast reserves are still untapped.

Crime and the Young. Lord Justice Lawton, speaking at the Preparatory Schools Association's Conference held at Trinity College, Cambridge, attributed increase in crime among the young (1) to the abandonment of the moral standards handed down to us through the Christian religion, (2) to a modern reluctance to impose discipline and, (3), to "the application of misguided albeit well-intentioned, penal theories". In the old days boys fought only with their fists and did not kick an opponent when he was down. Youngsters who now appear before the Courts often seem never to have heard of either of these rules, or even of the difference between right and wrong. The contrast between native children and those whose forebears settled here in recent times "is obvious to all who have to administer criminal justice", he said. "Few Jewish youngsters appear before the Courts and almost never for crimes of violence. Much the same can be said of the more recent Moslem and Hindu immigrants. They too ensure that their young are taught the difference between right and wrong." (*Cambridge Evening News*, 4 Sept. 1978)

Ebla. (See this JOURNAL, R.K. Harrison, 104, 45.) The *Daily Telegraph* (26 Ap. 1979) reports Hershel Shanks in *Biblical Archaeology* as complaining that of the 15,000 tablets (dated ~ 2300 BC) discovered in 1975, not one has been made available to scholars. G. Pettinato, the language expert from Rome, was said to have resigned from the work of translation because Paolo Matthiae (regretfully misspelled Matthiare in 104, 45) accepted the Syrian Governments orders as to how the work was to be conducted. Pettinato was quoted as saying, "The way Matthiae is running things, the Elba tablets will not be published for 300 years". Most or all of this appears to be untrue. A strong letter of protest from Paolo Matthiae appeared on 10 May. The Syrian government is always helpful, he says, and have placed no restrictions on the work. Ten volumes of critical editions of the texts are being prepared, a new journal (*Annali di Ebla*) publishes information on Ebla and photographs of tablets and books about them have appeared - one by PM in English is shortly to be published. PM adds that no allusion to the Genesis creation story has been found.

Violence on TV. It is gratifying to learn that many years of protest about violence shown on TV have borne fruit. The new BBC Code, based on the Sims Report recognises that the immature and mentally unstable may be stimulated to behave anti-socially after watching violence on TV. Though violence cannot be avoided entirely (news coverage, classical plays etc.) the new ruling is that gratuitous violence should not be shown to create excitement, to hold the viewers' attention, or shown in such a way as to encourage imitation. (News media, 22 Mar. 1979.)

Fish Blood. The incredible ingenuity shown in biological mechanisms never ceases to amaze. It is basic principle of physical chemistry that freezing points of solvents are lowered by dissolved substances. The lowering depends on the numbers of molecules dissolved relative to those of the solvent, so that for a given concentration large molecules are less effective than small. It would be difficult to imagine that any exception to this rule would be found. But fish living near the polar ice caps contain chemicals in their blood which stops it freezing. The Polar cod contains eight glycoproteins, all with high molecular weights, two of them lower than the rest. By themselves none of these glycoproteins depress the freezing point of water more than by the expected amount, but when mixed together as in fish blood, the effect is much greater than calculated. It is suggested that growing ice crystals become attached to the small molecules and are then wrapped round by the large molecules, thus destroying the sharp ice-water interface and preventing the spread of ice. (David Osuga, *Jour. Biol. Chem.* 1978, 252, 6669). It would require no small ingenuity to think out a method like this and as so often in biology it is hard to think that such an invention came into existence without thoughtful planning.

Video cassettes. Such is the sinfulness of man, that even the most wonderful inventions are soon used to further the Devil's aims. Video cassette recorders, now being sold, will prove invaluable for recording TV programmes, making it possible at long last to watch one and record another being shown at the same time. But according to the *New York Times* (reported, *New Scientist* 19 Ap. 1979) American shops are finding that their sales of pornographic video cassettes (at 100 dollars each) are as numerous as those of all other movies combined. It is predicted that the price will later fall to below \$20. According to a later report (*New Scientist* 26 Ap.) Soho club owners in London have entered the field. The video tapes do not have to leave their owner's premises for processing. Some owners store them in cabinets circled by coils of wire. In a police raid the "heavy" on the front door operates a switch and all the 'pictures on the tapes are erased by a magnetic field — thus making evidence for prosecution unobtainable.

Erich von Däniken. A further excellent scholarly exposure of von Däniken's bizarre opinions has been published (Ronald Story, *The Space-gods Revealed*, New English Library, 137pp, PB, £0.80) It deals with the claims in the first four of von Däniken's books. (See this JOURNAL 103, 33.)

Self-fulfilling prophecy has occasioned a good deal of interest in recent years. In a recent book G.G. Smale (*Prophecy, Behaviour and Change*, Routledge and K. Paul, 1977) the author brings forward much evidence that the principle applies to the helping professions. His interest was drawn to the matter by a comparison of two social workers who were responsible for the treatment of

drug addicts. The one had every hope of seeing cures and two years later all his patients were still in the community: the other was pessimistic and at the end of the same period all his patients had had to be put in institutions.

Christian education. Dr Coggan, Archbishop of Centerbury; recently urged that there should be more teaching of the Christian religion. One reason why so many were attracted to strange sects was lack of adequate instruction. "While we have baptised in great numbers (yes, and confirmed) we have not taught." (D. Teleg. 9 May 1979)

Dead Sea Rift. The Dead Sea Rift marks a fault boundary between the African and Arabic plates, and the Arabic plate is slipping north relative to the African. On average a half-metre slip occurs every 200 years. Several biblical miracles such as the destruction of Sodom and Gomorrah in 2000 BC when the "smoke of the country went up as the smoke of a furnace" (Gen. 19:28, similar smoke clouds follow slip earthquakes in the San Andreas fault), the crossing of the river Jordan and the fall of Jericho (the fact that the walls fell in one direction only is taken to indicate that an earthquake was responsible) were apparently caused by earthquakes. The Book of Zechariah is "amazingly precise" in its prophecy of the cleaving of the Mount of Olives: "half of the mountain shall remove toward the north, and half of it toward the south". (A. Nur and Z. Reches, reported in *New Scientist* 7 June, 1979, p 798.) As usual in such cases, naturalistic explanations of miracles are partial only: it is the timing of the events which is not explained.

Heaven. Agnostics have often said that men should concentrate on the here and now, rather than fill their minds with unrealistic thoughts of a heaven beyond. That this is psychologically wrong was illustrated by a recent BBC 1 programme ("Women in Captivity", 28 June, 1979) describing the life in concentration camps of 600 women interned in WW2 in camps in Sumatra, of which 300 died. The food consisted only of dirty rice, mildewed cucumber and a kind of jungle spinach. To alleviate their distress the women thought up strange procedures. For example, "When the hunger pains bit too sharply they wrote out some of the most mouth-watering recipes they knew; and oddly enough it seemed to help." (Peter Wright D. Teleg. 29 June). Similarly V.E. Frankl who survived a German extermination camp sometimes saved himself from the misery of trivial sufferings by imagining himself giving a lecture on the psychology of a concentration camp in a warm room with an attentive audience. "I succeeded somehow in rising above the situation, above the sufferings of the moment" (*Man's Search for Meaning*, 1964, p 71.)

J.N. ISBISTER

ANTI-PSYCHIATRY; Christian Roots

in the Thought of R.D.Laing

It is often supposed that the wonderful catalytic effect of Christianity on man's thought, an effect which initiated the scientific movement, is a thing of the past. This is far from being so. In his article Mr. Isbister who is currently writing a thesis at Cambridge on the development of psychological thoughts in recent years, shows that it was Christianity which gave direction to Laing's thinking - a thinking which has had a profound effect in modern times both in the areas of psychiatry and mysticism. This is of interest to Christians because Laing is often appealed to by non-Christians as if his insights provide a substitute for Christianity.

Introduction

The question, how is the Christian to relate his faith to 'worldly knowledge' is perennial. God's revelation of Himself in Christ has cosmic significance. Many of the writings of the New Testament can be seen as a grappling with the various dimensions of this fact. St. Paul and St. John manifest in their writings a balance which can be paradigmatic for any modern encounter between

biblical faith and secular knowledge. The development of modern secular ideologies affords an opportunity for Christians to explore and develop a biblical poise: a poise which rests between outright rejection of new ideas and complete capitulation to them. The biblical attitude is to reject such superficial responses in search of more sensitive, critical appraisals within any specific area of human activity¹. With regard to psychology and psychiatry the Christian option is similar to that described by Karl Jaspers when he wrote:

An educated attitude has to grow slowly from a grasp of limits within a framework of well differentiated knowledge. It lies in the ability to think objectively in any direction. An educated attitude in psychiatry depends on our own observation... but it also depends on the clarity of the concepts we use and the width and subtlety of our comprehension. (1963, p.50)

For Jaspers, and for the serious-minded Christian, such 'an educated attitude' involves the following activities:

[We should be engaged in] a conscious critique of methods [which] will keep us prepared in the face of enigmatic reality. Dogmatic theories of reality shut us up in a kind of knowledge that muffles against all fresh experience. Our methodological approach therefore... [represents] searching in opposition to finding. (*Ibid.* p.42)

The following essay is offered as part of the development of that educated attitude².

R.D. Laing and Anti-Psychiatry

Within British Psychiatry since the war there have been two opposing features. On the one hand there has been a consolidation of the medical profession's dominance within the field, and on the other hand there has been the growth of a number of significant challenges to the medical profession's right to have such dominance. The former trend is represented by the triumph of cheap physical therapies (most notably drugs and ECT), the establishment of a Royal College for the psychiatrists, the

integration of psychiatric services into the National Health System, and the measures of the 1959 Mental Health Act³. The latter trend is represented by the growth of a plethora of alternative therapies (many of which are just variations on an old theme, psychoanalysis), the rise of clinical psychology as a discipline, the growth of numerous sociological perspectives which have emerged from the U.S.A., and finally the awareness that generally speaking the 'medical approach' is at best only palliative.

'Anti-psychiatry' was one such challenge to the prevailing orthodoxy of British Psychiatry. The term is an umbrella term which has come to be assigned to a small group of dissident psychiatrists who came to prominence in the late 1960's. The names of R.D. Laing, D. Cooper, A. Esterson and J. Berke⁴, all of whom were young politically-active psychiatrists who reacted against their (medical) training, are most usually referred to by this label⁵. It was against the *status quo* that had been established within postwar psychiatry that these writers directed their criticisms. Medicine's temporary palliative solutions were rejected, and the social order which generated the problem individuals came under fire. The elements of social critique within 'anti-psychiatry' were part of a wider cultural dissatisfaction: the events of Paris in 1968, the anti-Vietnam war protests, flower-power were all products of the same questioning awareness. As a movement, anti-psychiatry blossomed, fruited⁶, and withered along with these other radical expressions of youthful idealism. As the establishment weathered these storms, the hard facts of life gave-the-lie to any naive optimism.

Of all the figures prominent at the time, one writer, R.D. Laing, continues to command significance. His writings, particularly his early writings, have not as yet been written-off, or ignored. One psychiatrist wrote of him fairly recently in the following terms:

The writings of Laing are in a special category. As a trained psychiatrist he made useful contributions to scientific writing, then abandoned that discipline as too cramping... In his earlier works, particularly in *The Divided Self*, he examined the position of schizophrenics, and by an intoxicating mixture of existential philosophy, social psychiatry and impassioned poetry conveyed something of the schizophrenic experience and made trenchant

criticism of the medical model approach to people in this position. (D. Clark 1974, p.52)

Indeed R.D. Laing is singled out by G.M. Carstairs in a review of the recent history of psychiatry. He writes:

Two other outstanding figures in modern British psychiatry deserve special mention, Maxwell Jones and R.D. Laing. I find their contributions fascinating because they exemplify the contrasting accomplishments of two charismatic figures, one of whom always kept one foot on the ground while the other took off into the clouds. (1977, p.981)

Assuming that Carstairs assigns 'heavy feet' to Maxwell-Jones (whose work centres around the concept of the 'therapeutic community'), and a 'light-head' to Laing, this reference is none-the-less some indication of Laing's continued importance in this confused field. All, even his most vociferous critics, agree that Laing has made an outstanding contribution to the understanding of the experiences of the schizophrenic, and of madness generally. Some measure of the stature of Laing's significance to the field is provided by the fact that he is now becoming the subject of a whole series of secondary works. The development of his thought is being studied in an attempt to understand, and capitalise on, his insights⁷. As one who has contributed to the understanding of the human *psyche* his work merits critical Christian attention; especially when it is remembered that Laing profoundly influenced the Christian counselling movement known as 'Clinical Theology'⁸. An exploration of his thought from the standpoint of a committed Christian is therefore particularly apposite. Clearly any 'educated attitude' that one might wish to develop towards the phenomenon of madness, would remain sadly partial if it were not to come to grips with the ideas that Laing develops.

The Growth of Laing's Thought

The nature and growth of Laing's thought have been the subjects of two recently published books - Andrew Collier's *R.D. Laing: The Philosophy and Politics of Psychotherapy*, and Martin Howarth-Williams' *R.D. Laing: His Work and its Relevance for Sociology*. These are the latest, and as yet the best, of a

whole series of books attempting to assess Laing's contribution to psychiatry. They raise the level of 'Laing studies' above the polemical level of hard and fast polarities and simple categorical judgments towards a level of competent objective scholarship. Though they both focus attention on the same theme — Laing's ideas and their development — the pictures they convey of Laing end up very differently because they reflect their respective authors' paradigms. In Collier's case the picture is coloured by his Marxist philosophy; in Howarth-Williams' by his particular brand of sociological imagination. The two pictures, however, do complement each other well, for the main thrust of Howarth-Williams' book is detailed exposition, while that of Collier is detailed criticism.

Collier writes as a committed Marxist with a view to providing an overview of Laing's achievements and failures in the light of Marxist ideals. In the past 'the Left' (of whichever variety available) has been less than fair in its attitude to Laing, seeking to dismiss him after convenient labelling of his views. In the wake of the demise of the whole counter-culture of which anti-psychiatry was a part, Laing's analysis of madness and alienation was usually rejected as too superficial. The 'politics of subjectivity' was said by Marxist critics to have failed⁹, and most turned back either to Freud or to his more recent continental interpreters¹⁰. Collier's work, in contrast to the earlier Marxist critics, is a fair attempt to chronicle and summarise the significance of Laing. Naturally, in line with Marxist ideas, and in view of the fact that Laing was critical of the social order which causes the suffering of the mentally deranged, Collier concentrates upon those themes within Laing's work which confirm or elucidate the Marxist diagnosis of society. The idea of alienation as an integral facet of Western society, the critique of normality and sanity, the 'violence' of the bourgeois family, are all Marxist themes which get treated with a particular twist in Laing's work. Collier ably traces these threads throughout the major Laingian works¹¹. Certainly since these themes are an integral part of Laing's diagnosis they cannot be ignored.

However they must be seen within the wider context of other elements in Laing's work. As Christians we might well endorse much of what Laing says, for such themes as the alienation of man from himself and from his neighbour are aspects of the biblical position. However though endorsing the diagnosis; there is no need to accept the prognosis and therapy that Laing appears to be

offering. A Christian response is more radical than some of the superficial Marxist views that pepper Laing's later works. Os Guinness provides one example of such a response to one of Laing's diagnoses:

... R.D. Laing says, "We are all murderers and prostitutes — no matter to what culture, society, class or nation one belongs; no matter how normal, moral, or mature one takes oneself to be." [1967] Jesus was saying the same thing in a far more profound way. Any man who knows the nature of his own heart realises that violence is not another man's problem. It is everybody's problem. It is my problem. "There but for the grace of God go I." Unlike R.D. Laing's demystification that leads to counter-violence, for the Christian demystification leads to penitence. (1973, p.172)

The Christian response to the Marxist elements in Laing's thought should always represent a third way, not that of outright rejection, nor that of dismissal, but rather careful evaluation and analysis.

Howarth-Williams' study, in contrast, is not pre-occupied with the Marxist elements within his subject's thought — his aim is to place Laing's work within a wider context of roughly contemporaneous developments within other social sciences. As a sociologist¹² this author is in a good position to compare certain of the themes in Laing's work with the 'new-wave interpretative sociologies'¹³. Central to the whole of Laing's insight into the nature of the schizophrenic experience is the belief in the intelligibility and meaningfulness of the various actions and utterances that schizophrenics make. When it is placed in its proper context (usually the family) odd behaviour becomes reasonable — indeed highlights the unreasonableness of the other participants in the social setting¹⁴. Howarth-Williams compares Laing's use of the notion of intelligibility with that found in the social phenomenology of Schutz, the ethnomethodology of Garfinkel, and the structuralism of Lévi-Strauss. All of these are examined through the particular spectacles that Howarth-Williams wears. That particular set of spectacles, or his paradigm, is revealed in the introduction where he plunges the reader into Sartrean metaphysics: we are told that '[his aim is] simply try[ing] to show the dialectical intelligibility of a movement of historical temporalisation...

in our case the 'historical temporalisation' is the span of Laing's career' (1977, p.1), and further that: '[the] moment of review thus negates the negating stasis of the first moment, and reaffirms, at a higher level of inner clarity, the living flux of the totalisation-in-process which is Laing's work' (*Ibid.*, p.2)¹⁵.

Least such verbosity should obscure the great value of this work and discourage the potential reader let it be said that this is by far the most comprehensive account of Laing's intellectual development yet published (though, of course, it does not cover everything with sufficient depth - the case of Laing's relation to Freud being one such area). Howarth-Williams has done an admirable job in tracing the development of Laing's thought right from its first appearance in print as a co-author of a paper in *The Lancet* in 1955 through to his more recent 'literary' excursions (as represented by *Knots*, a book of poetry which outlines a few of the knots it is possible for people to become enmeshed in with their relationships). The endeavour with which Laing's utterances have been tracked-down is praiseworthy: neglected typescripts, interviews, L.P.'s, magazine articles and reviews are unearthed to give a very thorough account of Laing's career. We are shown a highly individual career which spans one of the most significant periods of British psychiatry. The combination of these two, that is, original work done in a period of historic importance makes Howarth-Williams' book essential reading for anyone concerned to understand the issues that Laing's work raises.

The Role of Religion within Laing's Thought

The part that religion has to play in the thought of R.D. Laing is enigmatic to most commentators. Though it has received some attention in the secondary literature which has mushroomed-out of Laing's work, rarely has sufficient emphasis been placed on the centrality and persistence with which references to religion appear in his writings. Of course, since Laing's style often included the clever use of religious metaphor (both biblical and other), it is a subject that inevitably receives some mention; particularly as the religious motif increased in importance during the 1960's (this trend culminated in his 'exile' or 'retreat' to Ceylon in 1971 and his later visits to India and Japan all of which were to learn meditation).

To many this strand within Laing's thought is an almost inexplicable adornment to what could otherwise be seen as a *sensible* unfolding of ideas. Neither Collier nor Howarth-Williams come to terms with it; Collier merely dismisses this aspect as one of the 'false exits to freedom' (as opposed to the one true exit to freedom — Marxist revolution) and Howarth-Williams places the religious themes on a side branch to the main development¹⁶.

Accounts of the unfolding of Laing's thought usually follow a pattern something like this. He began work in the early 1950's very much within the bounds of conventional medicine; as the short-comings of the purely 'medical' or 'organic' approach became apparent neo-Freudian psychoanalysis began to provide for him an appropriate paradigm¹⁷; this led to a Marxist critique of normality and society; as his work progressed he found ideas in Sartre's writings which helped him to account for social and personal existence in a way consistent with his ideals¹⁸; next the work of Bateson on the pathology of family communication (most notably the idea of 'double-bind' situations — ones in which whatever strategy is adopted the victim cannot win) was to provide Laing with a number of concepts that were essential to his insight; this combination of neo-Freudian, Sartrean and Marxian insight was the basis of his highly original contribution to the understanding of madness; finally (much to the horror of his new-found compatriots of 'the Left') he became involved in impractical, mystical and religious concerns. The development of his thought can be seen as a layered cake, with the religious motifs as the icing to that cake (whether you accept those religious elements depends upon your prior predilection for icing and is in no way an integral part of the cake).

In this essay I want to suggest that the above account of the way Laing's thought progressed is at best a dim reflection of its true unfolding, at worst a concerted (though not necessarily conscious) attempt to deny and suppress the Christian origins and insights that are present in Laing's work. It is my contention that right at the very core of Laing's insights is a Christian concern that undergirds the whole of the development of his thought. Before backing up my contention, I must explain just what I mean when I say that religious elements are basic to Laing's thought.

Firstly, I am not arguing that since all human thought necessarily stems from religious presuppositions, Laing's thought, since it is a special case of the former, must do likewise¹⁹. Rather I want to show that Laing's insights have their origin in specifically Christian concerns. Secondly, I am not arguing that since Laing widened the scope of admissible evidence concerning madness to include literature and poetry, he therefore began to touch upon the sphere of the religious. I don't believe that the religious is only to be approached in literature or poetry, it underpins the scientific and the ordinary²⁰. Thirdly, I am not providing another illustration of the view put forward by Professor Halmos — that the new secular 'counsellors' all reflect an underlying 'faith' which is basically the old Christian virtue of love,²¹ nor am I fourthly, just contending that since many of the later writings contain religious themes then this shows their importance to him. Many Christians have noted the primacy of the religious within the late writings of Laing and have used this as some sort of social indicator. Thus, Os Guinness in *Dust of Death* relies very heavily on the later writings (in particular *The Politics of Experience*) as an indicator of the counter-culture's world-view²². Similarly Kenneth Leech, coming out of a different tradition, in his useful reading of the times, *Soul Friend*, cites R.D. Laing as opening up once again the realm of the spiritual:

In recent years also there has been a great deal of attention given within therapeutic schools to the issues of spirituality and spiritual values. Both C.G. Jung and R.D. Laing, while their approaches and their language are widely divergent, lay great stress on the importance of the recovery of spiritual life... To Laing... the loss of transcendence in our culture is indicative of its death. What we term 'sanity' is in fact spiritual deprivation. True sanity involves the dissolution and the transcendence of the normal ego... The work of Laing and his colleagues at the Philadelphia Association has helped us to see what we term 'madness' as a journey. Mary Barnes claimed that it was through madness that she found both herself and God. (1977, pp. 105, 106)²³

However, both of these writers draw only upon Laing's late, mystical, writings by which stage his espousal of the East and Eastern expressions of religion eclipse his earlier religious

insights. Indeed, after reading Kenneth Leech or Os Guinness one might well imagine that it was only after he became absorbed in Eastern religions that Laing began to see any value in religion or in the spiritual nature of man. However, the religious themes in Laing predate his late arrival in the Orient (one of his aphorisms was that: "Orientation means to know where the orient is" cited by Guinness p.192). Howarth-Williams writes:

The first writings of Laing of a religious flavour occur [in] 1964, and continue, through 1965-6 to 1967 with 'Politics of Experience' and of course the 'Bird of Paradise'. It is difficult, I admit, to find 'religious' writings in 1968... that being the year of Laing's political commitment... It could be argued, perhaps, that Laing rejected 'religion' in 1968 for politics, became disillusioned with it, and returned to religion thereafter. I do not believe this is the case. For throughout Laing has stressed the dialectic of the political and the spiritual, it was Laing who amazed the political underground in 1964... by saying 'the only way we can define our aim is as this: to reveal the greater glory of God. (1977 p.139)

However, once again it is the late-stage writing which according to Howarth-Williams 'is still on-going' (1977 p.141) that is considered; and though often expressed in biblical terms, it definitely has the flavour of the East. Howarth-Williams, for instance, talks in terms of 'Laing's Buddhism appear[ing] to be of the Mahayana or Zen variety' (*Ibid.* p.91) and Laing himself in one of his late writings, says:

Most people involved in this [quest for transcendence] don't refer to the Christian tradition for their terms of reference. They go not to the Bible but to... the Tao Te Ching... to the Buddhists, Zen, Tibetan and other schools, the Taoists, the Sufis, the Hindus... (Laing 1967 cited in Leech 1977 pp. 7, 8)

Again, it might be concluded that it was the discovery of the resources of the various Eastern religions which provided Laing with religious answers to the existential problems that faced him in understanding madness, and not, as I shall try to show that it was specifically Christian concerns that generated his insights. If we look more closely at the growth of Laing's thought we discover that he was deeply moved by religion long before 1964 and

that religion was an essential and integral factor in prompting his early investigations. The religious strands in Laing's thought do not emerge inexplicably after numerous abortive excursions into scientific fields and are not therefore retreats into mysticism when all else has failed; they are these from the beginning, and at the beginning they are specifically Christian in nature. Only later did they become modified and changed until Laing's late religious phase was mystical, speculative, and oriented Eastwards - but that trend is not our immediate concern.

Howarth-Williams does glimpse at some of the origins of the religious facets in Laing's thought, yet he remains unable to grasp their significance:

As to the question of roots [of his religious sensibility] in this case we clearly have to look further back. There are indeed few occasions prior to 1964 on which Laing has exhibited religious knowledge... That the roots *were* there, of course, we know well, since Laing has spoken of his Presbyterian upbringing. How much this has affected what he feels and says, as well as how he says it, is as he admits, impossible to gauge. I would imagine it to be considerable. (*Op. cit.* p.140)

But Howarth-Williams is unprepared to explore this avenue further, indeed were he to do so it would only be to outline the roots of Laing's later religious writings, and not to point out the centrality of these early religious themes to the whole of his subsequent work.

The knowledge that right at the very beginning of Laing's interests there was a theological concern, and that this was formative in the questions that he posed within the psychiatric sphere - enables the committed Christian to approach the psychiatric sphere with a new tool which is unavailable to the non-Christian commentator. The formulation of Laing's theology, and its development in the light of the psychiatric problems he encountered, are crucial to the Christian concerned with psychiatry. A Christian understanding of madness needs to maintain many of the features of Laing's insight without degenerating theologically into the mysticism and relativism that characterise his late writings. Thus, since we know that Laing began the pursuit of his studies within the framework of a

definite theological position, we can reflect on how that position changed as he was confronted with the problems that presented themselves in the psychiatric sphere, we can hope to identify the points at which his theological development took wrong turns and see what other responses were possible which would have retained his personal, psychiatric and social insights while remaining true to the biblical picture of man.

Examining the place of religion in Laing's early thought we are struck by its centrality. "By the time I was fourteen" says Laing, "I knew that I was really only interested in psychology, philosophy and theology" (cited in Howarth-Williams p.3). He describes his background thus:

I grew up, theologically speaking, in the 19th century: lower middle-class Lowland Presbyterian, corroded by 19th century materialism, scientific rationalism and humanism... I listened to and later partook in long arguments on the existence or non-existence of God... I remember vividly how startled I was to meet for the first time, when I was 18, people of my own age who had never opened the Bible (cited in Howarth-Williams p.94)

He talks further of his early years in *The Facts of Life*. He was warned, he says, of the perils of dancing, (which is part of the story of his non-discovery of the facts of life): and remarks "when I was sixteen...among the Christian boys in my school, of whom I was counted as one" (*Ibid.*, p.16). Laing rejected the personal piety of this narrow form of Christianity, since such a repressive and debilitated theology did not provide answers of sufficient depth to satisfy his sensitive and intelligent mind. However, though he abandoned the all-too-often simple answers of conservative theology, he did not abandon Christianity. He began searching further afield. The writings of Søren Kierkegaard (in particular, *The Sickness unto Death*) inspired him profoundly. He also discovered in Tillich answers which seemed to go beyond platitudes and seemed to speak to his own feelings and those of the patients he was now contacting. Peter Sedgwick cites this as only one of many influences upon Laing at this time. He writes:

For some time — it must have been over a considerable interval — he had been reading deeply in the literature of Freudian and neo-Freudian analysis, as well as among existentialist writers of both a psychiatric and a

literary persuasion... Laing was able to extract fertile insights into psychotic and allied states of mind not only from clinicians of the European phenomenological school (Binswanger, Minkowski, Boss) but from philosophers and artists (Sartre, Beckett, Tillich, Heidegger and even Hegel) who dealt in non-pathological, indeed fundamental situations of human existence. These concepts, in partial conjunction with those of Freudian psycho-analysis, were applied to the knotted thought-processes and behaviour of an obscure group of severely disturbed mental patients, who had been hitherto regarded as inaccessible to rational comprehension. One of the most difficult of philosophies was brought to bear on one of the most baffling of mental conditions, in a manner which, somewhat surprisingly, helped to clarify both. (1971, 1972, p.13)

Howarth-Williams also plays-down the importance of Tillich for Laing. He writes:

Laing is much nearer to the basically 'pessimistic' existentialist than the optimistic Christian... I conclude then that Laing adopts a basically *negative* position towards Tillich - certain elements of Tillich's position carry over to Laing's, but the fundamental assertion is negated in the transformation (*Op. cit.* pp. 151, 152)

However, both of these commentators reach this conclusion only after a consideration of *The Divided Self* (which Laing began in 1956 and completed in draft in 1957), and from reading Laing's revisions of his position in *The Self and Others*. In so doing, both have missed an intermediary stage of Laing's development, in which Laing found in Tillich many of the tools that were needed to account for the experiences he was observing in psychotic individuals.

Tillich's notion of 'ontological insecurity' as *the* fundamental condition of all men is one of the concepts that Laing was to take and use to illuminate madness. Tillich's theory of anxiety, which is outlined in his book *Courage To Be*, is that human existence is poised on the boundary between being and non-being and that this creates anxiety. Anxiety takes three forms: anxiety about fate and death, anxiety occasioned by guilt, anxiety resulting from a sense of meaninglessness. For

Tillich anxiety is met and countered by faith in God who is called 'the ground of being'. It was part of Laing's originality that he was able to make sense of these rather abstract notions, and discern in psychosis the manifestations of them.

As Christians we affirm our belief that human beings are inherently anxious and insecure without God, a fact which generates many psychological problems. As evangelicals we affirm our belief that God in Christ has met that condition and provides a satisfactory answer to it²⁴. Laing, too, in his early stages was not content with vague metaphysics, the problems he was tackling were too urgent and too real to be dismissed with mystical answers. Sedgwick has noted Laing's concentration upon practical issues in *The Divided Self*. He writes:

...this first book of Laing's can be distinguished from his later work... [in that] there is not a hint of mysticism in it, not the faintest implication that there is any further world of being beyond that described by natural and social science (phenomenology being included in the latter). There are no intimations of an innermost substance or grounding of all things and appearances, lying perhaps in some core of inner personal reality beyond the probings of the clinician. Laing has in fact been at deliberate pains, in his borrowings from the more opaque existentialist writers, to demystify their categories. The floating, abstracted concepts of Being and Not-Being, the whiff of dread before death and the hints of the supernatural, characteristic of Kierkegaard and Heidegger, are replaced by transparent, empirical usages. 'Ontological insecurity', which is said to lie at the heart of serious mental illness, simply means a profound personal uncertainty about the boundaries between the self and the world, which can be contrasted with the differentiation of ego-boundaries that takes place in normal child development. 'Being-in-the-world' means social interaction between persons, and Kierkegaard's 'Sickness unto Death' is not the loneliness of the soul before God but the despair of the psychotic. Laing is, in short, naturalising the mystical elements in one current of Continental existentialist thought. (*Op. cit.* p.15)

Thus, *The Divided Self*, which is one step beyond the intermediary stage I mentioned earlier, though it does not contain any explicitly Christian answers to the problems generated by man's fallen state, *does* exorcise any merely metaphysical or mystical attempts at solutions. This grounding of the implications of man's stage, this 'concretising' of the facets of man's fallenness, is a very real part of any Christian understanding of psychosis and neurosis: the Incarnation tells of a God not content with nice sounding words and pretty phrases. God's resources, available in Christ through his Church, for those whose lives have been marred, are very real, practical and 'empirical'.²⁵

However, the importance of the theological aspects of man's existence, and their centrality to Laing's early concerns is missed if only *The Divided Self* and subsequent writings are referred to (both Sedgwick and Howarth-Williams thus miss their role). That Laing was concerned about these questions is shown by the fact that he published a short paper specifically about them right at the beginning of his career. Here we see Laing's original adherence to a Christian perspective in a new form, that of the liberal Christian. This intermediary stage proceeded out of his Presbyterian upbringing, and preceded his retreat into relativism and mysticism. Coming at such a strategic point it provoked and prompted many of his original insights.

Laing's first publication was as a co-author of a paper in *The Lancet* on an experiment conducted in Glasgow Royal Mental Hospital. It was published in 1955 and concerned the effects of transforming a traditional hospital ward into a 'therapeutic community'.²⁶ It is the first of Laing's many contributions to the care of schizophrenics. His second publication (the first to be written by him alone) appeared in 1957 in the *British Journal of Medical Psychology*. Perhaps unexpectedly, this does not describe some further clinical studies, but is a paper entitled: "An examination of Tillich's Theory of Anxiety and Neurosis". Even more interestingly, from our point of view, the first draft of the paper was received in 1954, prior, that is, to the publication of *The Lancet* paper. This paper, then, was written at a crucial stage in Laing's intellectual development (this makes it particularly sad that Howarth-Williams' study omits it completely). The subject-matter reveals Laing's continued interest in Christian concerns, and points to their primacy in undergirding his clinical studies.²⁷ Laing, aware

of the paucity of most of the conceptualisations of man that were prevalent at the time writes:

I wish to give a short account of some of the things one of the most profound of living theologians has to say about anxiety and neurosis... Moreover, it seems only fair that theology should make its comments on psychiatry, since it can hardly be said that the last fifty years of developments in medical psychology have left theologians entirely unmoved. Tillich is not interested in making a destructively critical attack on our theories based on clinical experience, but rather to contribute to their clarification. We must all agree that the basic assumptions of our work are not as explicit as we would like them to be. Tillich believes that such clarification must come from an awareness of our *ontological* presuppositions about man. By this he means that we all carry around with us various preconceptions about the nature of man, but that mostly we do not care to bring these notions clearly before us. If we did we might find them pretty inadequate. So far from it being the case, in Tillich's view, that such clarification of our basic ontological assumptions is a mere exercise in 'metaphysical speculation', as it is often dismissed as being, he considers that the failure to clarify them tends to spread confusion in our theory, to the extent that the basic premises of our work remain unexamined... What I have attempted is to suggest that there may be grounds for supposing that, in what to many people may be the obscure and unlikely context of the writings of a theologian, there are thoughts on a subject which directly concern us, and that these views may help us towards a clarification of our own. (1957, pp. 88, 91)

Implicit in the paper is the belief that a Christian view of man might actually provide a better model for understanding some of the complex phenomena of madness (and 'normality')²⁸. Much later he was to write of such inadequate, reductionist models of man, together with their consequent therapies in the following terms:

If [people with problems] go to a Christian priest, the priest will probably refer them to a psychiatrist, and the psychiatrist will refer them to a mental hospital,

and the mental hospital will refer them to the electric shock machine. And if this is not our contemporary mode of crucifying Christ, what is? (Laing 1967 cited in Leech 1977 p.120)²⁸

However, Laing's commitment to a specifically Christian perspective was not sufficiently grounded in a biblical foundation to remain as pronounced as it was at the beginning. As time progressed, his version of Liberal Christianity lapsed into an all-embracing relativism and mysticism — in doing so, of course he followed a well-trodden route³⁰. Laing peppers that path with many useful psychiatric and social insights, many of which form some part of an adequate Christian account of 'mental illness'. A mature Christian understanding of these problems (together with a consequent hope for sufferers) could lead to re-examination of the interplay between the religious and the psychiatric elements in Laing's work, and thereby discover afresh the resources available in the Good News of Jesus.

Conclusion

To assert, as I have done in this essay, the primacy of the religious, and indeed the Christian, basis of many of Laing's significant contributions to psychiatry is not to distort Laing's position (Howarth-Williams says: "so far as I know, Laing has never publicly aligned himself with any particular religious position explicitly," *Op. cit.* p.102). My interpretation of the roots of Laing's concerns and solutions makes sense of his continuing significance for Christians (such as those involved in Clinical Theology) a fact that Howarth-Williams cannot quite fathom (he writes: "There is even a tendency amongst 'avant garde' Christians to call on Laing for empirical support for their philosophical positions" *Op. cit.* p.150). One need not be too 'avant garde' to concur with Laing though when he wrote in 1967:

We live in a secular world. To adapt to this world the child abdicates its ecstasy... Having lost our experience of the Spirit, we are expected to have faith. But this faith comes from a belief in a reality which is not evident. There is a prophecy in Amos that there will be a time when there will be a famine in the land, not a

famine for bread, nor a thirst for water, but of *hearing* the words of the Lord. That time has now come to pass. It is the present age. (1967 cited in Leech p.10)

Perhaps a realisation of the Christian roots of Laing's insights and concerns, together with a sensitivity to the possible deviations from a biblical perspective, may help to make pastoral theologians more aware of its relevance to people suffering in this area.³¹ Perhaps the rebirth of a Christian theology competent to cope with the complexity of this field would also stimulate a renewed interest on the part of psychiatrists in the relevance of Christ as the Healer. For as Tillich said:

The medical faculty needs a doctrine of man in order to fulfil its theoretical task, and it cannot have a doctrine of man without the permanent co-operation of all those faculties whose central object is man. The medical profession has the purpose of helping man in some of his existential problems, those which are usually called diseases. But it cannot help man without the permanent co-operation of all other professions whose purpose is to help man as man. Both the doctrines about man and the help given to man, are a matter of co-operation from many points of view. (1962, p. 76)

NOTES

- 1 Differing responses of various Christian traditions always seem to fall into one or other of these camps. With regard to sociology the first chapter of Peter Berger's *A Rumour of Angels* contains a useful survey along these lines, his analysis is paradigmatic of many other spheres.
- 2 I have explored the metaphor of 'an educated attitude' within psychiatry elsewhere (1979).
- 3 This feature of the development of British Psychiatry has been well chronicled recently by Geoff Baruch and Andrew Treacher in *Psychiatry Observed*. This book provides a useful account of some of the trends that have been operative in moulding contemporary psychiatry. (See my review of this book in *Third Way* for an indication of its shortcomings.)
- 4 The name of T. Szasz has also come to be associated with 'anti-psychiatry'. There are similarities between Szasz

and these British psychiatrists both in the timing of their critiques and the content. However since Szasz's work emerged from a different tradition, and since it was addressed to a different situation (that of American psychiatry) the conflation of the two is inappropriate. Szasz himself has said recently:

Because both anti-psychiatrists and I oppose certain aspects of psychiatry, our views are often combined and confused, and we are often identified as the common enemies of all psychiatry.

It is true, of course, that in traditional, coercive psychiatry the anti-psychiatrists and I face the same enemy. So did, in another context, Stalin and Churchill. The old Arab proverb that 'the enemy of my enemy is my friend' may make good sense indeed in politics and war. But it makes no sense at all in intellectual and moral discourse.

I reject the term 'anti-psychiatry' because it is imprecise, misleading, and cheaply self-aggrandising. Chemists do not characterise themselves as 'anti-alchemists'; nor do astronomers call themselves 'anti-astrologers'... I am against involuntary psychiatry, or the psychiatric rape of the patient by the psychiatrist - but I am not against voluntary psychiatry, or psychiatric relations between consenting adults... the very term 'anti-psychiatry' implicitly commits one to opposing everything that psychiatrists do - which is patently absurd... Actually... the anti-psychiatrists are all self-declared socialists, communists, or at least anti-capitalists and collectivists. As the communists seek to raise the poor above the rich, so the anti-psychiatrists seek to raise the 'insane' above the "sane". (Szasz 1977, p.2)

- 5 I have outlined the essential features of the positions of some of these writers, together with the beginnings of a Christian evaluation of them in my article entitled: "Are the Mind Benders Straight?" This article, together with a letter published subsequently in the same publication, also points out some of the vagaries of the term 'anti-psychiatry'.
- 6 One of the fruits of anti-psychiatry was the Philadelphia Association Ltd., (of which R.D. Laing has been chairman since 1964): "a charity whose members, associates, students,

and friends are concerned to develop appropriate human responses, to those of us who are under mental or emotional stress but do not want psychiatric treatment." Clinical theology could be considered another of the fruits.

7 Even that, admittedly lopsided, series, Fontana Modern Masters has vested in R.D. Laing the dubious privilege of being the only *living* psychiatrist covered. Indeed he ranks with Freud, Jung, Reich (and possibly Fanon) as representatives of psychiatry within this august body of masters.

8 Frank Lake writes in the Preface to his *magnum opus*, *Clinical Theology*:

my psychiatric and pastoral colleagues and I, and, indeed, all the seminar members, owe a great deal to three writers whose work has brought the schizoid position into sharper focus, the late Ronald W.D. Fairbairn, Harry Guntrip, and Ronald D. Laing. The two latter have also encouraged us by their presence at Clinical Theology conferences. (1966 p.xi)

A glance at the index to this work shows some of the extent of the indebtedness.

9 The phrase comes from Jacoby whose book *Social Amnesia: A Critique of Conformist Psychology from Adler to Laing* is a polemical attack on Laing and a call to rediscover the socially subversive elements in Freud. Other Marxist critics who have rejected or modified Laing's answers include P. Sedgwick in his two important articles 'R.D. Laing: Self, Symptom, and Society' and 'Mental illness is illness'; J. Mitchell in her analysis of feminine psychology, *Psychoanalysis and Feminism*; G. Pearson in his interesting analysis of psychiatry, sociology, criminology and social work, *The Deviant Imagination*; and Phil Brown in his manifesto for a Marxist psychology, *Towards a Marxist Psychology*.

10 The most notable of these interpreters are J. Lacan in France, and J. Habermas in Germany. (See the bibliography for examples of their work often referred to by these critics.)

11 The major Laingian works usually refer to the following: *The Divided Self*; *The Self and Others* (later revised as *Self and Others*); *Sanity, Madness and the Family* (with Aaron Esterson); *Reason and Violence* (with David Cooper); *Interpersonal Perception* (with H. Phillipson and A.R. Lee); *The Politics of Experience*; *The Politics of the Family*; *The Facts of Life*. For the most comprehensive bibliography of Laing, and works on Laing see Howarth-Williams pp. 206-212.

- 12 The book is in fact a revamp of the author's M.A. Thesis in sociology.
- 13 For a very helpful introduction and criticism of these new 'interpretative sociologies' see Anthony Giddens' *New Rules of Sociological Method*, Chapter 1.
- 14 Laing states in *The Divided Self* that his aim is 'to show that if we look at the extraordinary behaviour of the psychotic from his own point of view, much of it will become understandable' (1960, 1965, p.161, Emphasis mine). Good examples of the reasonableness of psychotics' behaviour are provided by Laing throughout his writings (see in particular *The Divided Self*, pp. 27-31, *Sanity, Madness and the Family*, and *The Facts of Life*, pp. 101-122).
- 15 To understand these terms it is worth referring to Laing's own account of Sartre's terminology. The introduction to *Reason and Violence* is sufficiently non-technical to constitute an introduction to these concepts (unlike the other essays in the volume). The process that Howarth-Williams is alluding to here is described by Laing and Cooper:
- ...many facets of reality can be unified into a consistent view of the world, in terms of which particular events, experiences, actions, find their place and can be construed accordingly. However, another synthesis, equally self-consistent, equally systematic, and seemingly all-embracing, can be found, in the light of which the same happenings or the same situation can be construed in ways that completely contradict the former... Each point of view first seems the whole truth. Then from another point of view the first synthesis of the situation, the first *totalisation*, as Sartre puts it, turns out to be relative... One begins to suspect that no totalisation has the whole truth, that none need, however, be totally false. Each is relative. Yet each can have a relative validity. And in all this one finds oneself making a synthesis in turn of all these other syntheses, and may even pride oneself that one's own synthesis contains the overall truth - until one discovers that someone else has incorporated one's own synthesis into his synthesis, detotalised one's totalisation...
- (Laing and Cooper 1964, pp. 11, 12)

This essay, then can be seen as a detotalisation of Howarth-Williams' totalisation.

- 16 See Howarth-Williams pp. 89-104, 139-141, 150-152 in particular p.140.
- 17 This move was by no means unusual for the time. The Tavistock Clinic was fostering many important excursions into these areas. Michael Balint's *The Doctor, His Patient, and the Illness* (published in 1957) is just one example of the fruit borne by such endeavours.
- 18 Sartre published Volume 1 of *Critique de la Raison Dialectique* in 1960. This 750 page treatise heralded a change in Sartre's philosophy; and in it he set out to provide the foundation of a general science of man, an anthropology, which was to expose the flawed nature of all thinking about society so far (whether sociological or historical); and to elucidate the structural prerequisites for the formation of any social group; and finally to outline the laws operative in the processes of social and group change. Laing's condensation of this volume (*Chapter 3 of Reason and Violence*) adds little to the comprehensibility of many of the facets of the argument.
- 19 The religious nature of all thought is a theme which has been well documented in recent years. The reformed philosophy of Herman Dooyeweerd is just one example of an exploration into this area of concern. The best introduction to this whole area is to be found in Kalsbeek's *Contours of a Christian Philosophy: An Introduction to Herman Dooyeweerd's Thought*. For a useful discussion of the role of religion in human thought see V. Brümmer's excellent paper 'The Function of Religion in Philosophy'.
- 20 This, I think, would be the line adopted by Frank Lake. For example, he makes the following reference:
 The existentialists are students, above all, of the schizoid position. It commonly represents their own basic ontological universe. They are struggling, from within this universe, to achieve a standing ground and a point of vision or vantage which is no longer obscured by their own strained and narrowed perspective. It is difficult to know whether to start with Job and certain of the psalmists, or whether to proceed directly to Pascal. But since Pascal himself, with Kierkegaard, Unamuno, Simone Weil, and many others personally acquainted with schizoid affliction regard Job as their great Biblical representative in the Old Testament, as Jesus is their remedy in the New ... This takes us for a while away from the discussion of medical and psychiatric concepts of the schizoid personality.

But when we return to the existential and ontological analysts we shall be better able to understand them. Even as psychiatrists they have roots, not only in medicine but in philosophy, and particularly in Biblical thinking. Job stands behind Pascal, Kierkegaard, and Buber, and therefore behind Heidegger, Jaspers, Binswanger, and Laing. (1966 p.581)

- 21 Professor Halmos' famous analysis of 'the faith of the counsellors' is an important examination of some aspects of one of the trends within the 'Welfare industry' at the time namely the rejection of political solutions in favour of personal and psychological answers. These answers were to be found in the counselling professions. Professor Halmos argues that "the formal-technological jargon, the impersonal clinical manners" are but a gloss upon the counsellors value-laden activity — which is offering love. If anything 'Anti-psychiatry' with its emphasis on the political and upon the spiritual is a counter instance to the thesis that Halmos was presenting here. Similarly with the emergence of radical social work, and political theology there seems to be a reversal of the trend that he was chronicling. He, himself was aware of that reversal, thus his last book was an analysis of this new political consciousness, *The Personal and the Political*.
- 22 Os Guinness quotes from Laing's late writings at least nine times to illustrate his diagnosis of the counter-culture.
- 23 Mary Barnes' story can be found in the book *Mary Barnes: Two Accounts of a Journey Through Madness* by Mary Barnes and Joseph Berke.
- 24 We would, of course, maintain that God's answer is applicable to 'normal' individuals equally — "all have sinned, and come short of the glory of God" (Rom. 3: 23).
- 25 A good example of such practical, real resources is provided by the story of Nancy Anne Smith recorded in her book *Winter Past*.
- 26 The paper is entitled "Effects of Environmental Changes in the Care of Chronic Schizophrenics." The concluding sentences were to prefigure many of the concerns that were to become evident in Laing's later clinical work:
- Our experiment has shown, we think, that the barrier between patients and staff is not erected solely by the patients but is a mutual construction. The removal of this barrier is a mutual activity. (Cameron, Laing and McGhie 1955 p.1386)

- 27 Laing came to Glasgow in 1953. Another source of inspiration for him, again a specifically Christian concern, was probably John Macmurrary's Gifford lectures which were delivered in Glasgow in 1953-54. The arguments of *The Divided Self* particularly those of the introductory chapter bear a striking resemblance to those of *The Form of the Personal*.
- 28 For a discussion of the use of models in psychiatry see Siegler and Osmond's book *Models of Madness, Models of Medicine*. They discuss Laing's work, but pay insufficient attention to his earlier work, they thus do not discern any specifically Christian origins to any of Laing's models.
- 29 The same idea appears to have come to R.D. Laing's son too. In Laing's latest book, *Conversations with Children* there is a conversation reported between Adam and Daddy (pp. 13, 14), Daddy is explaining that a cross was used to punish people. On hearing that "They don't do that now" Adam replies, "I know. They put them in gaol or treat them."
- 30 Os Guinness' *The Dust of Death* provides a useful chronicle of many of the landmarks of the route from liberal Christianity to relativism and mysticism, and of their shortcomings in particular in Chapter 6 'The East, No Exit'.
- 31 Certainly the blossoming of Clinical Theology has been one development that has initiated some of this work. It too is in need of sympathetic, critical appraisal in both its theory and practice. For a useful prolegomena to such a critique see F.J. Roberts' article 'Clinical Theology' and M.A.H. Melinsky's chapter entitled 'Clinical Theology: a Survey' from *Religion and Medicine* and 'Clinical Theology' by A. Gaskell which is a review of the *magnum opus*.

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GORDON R. CLARKE

SOCIOBIOLOGY

Edward Wilson made history and stirred up controversy in 1975 with the publication of his *Sociobiology*. In this paper Dr. Gordon Clarke explains what sociobiology is about and how it relates to Christianity.

It was in 1975 that Edward Wilson, curator of entomology at Harvard Museum of Comparative Zoology, published his monumental book *Sociobiology - the New Synthesis*.¹ Immediately, a reaction of a powerful and at times almost hysterical nature arose in Harvard itself, and rapidly spread through the academic community. Eventually, the furor having subsided a little, the debate reached our side of the Atlantic, and was summed up in a set of three articles in *New Scientist* in May 1976.² Much debate and correspondence followed, and although many biologists have felt that Wilson had said a great deal that was worthwhile, social and political scientists soundly castigated him for, in their opinion, unacceptable views. The Christian community has had little to say on the subject as yet, although a critical article in *Third Way* magazine³ made some points of interest.

So what was it that an entomologist could say to cause such a storm? "Sociobiology" is an attempt - a very successful and scholarly attempt - to survey all we know about the social behaviour of animals and man in the context of our knowledge of genetics. In effect it is a synthesis of a wide range of studies from genetics and population biology right through to psychology and anthropology. The most controversial part of the book is the 28 pages (out of 600) concerned with the human species. Most people, it seems, are prepared to accept that social behaviour in animals has a strong genetic element, but not so with human beings. There are some good reasons for their doubts, as we shall see below.

The purpose of this article is to explain the origins of sociobiology as a science, to examine the arguments which have already been mentioned and to explore the implications that this 'new science' might have for our faith. Wilson's work is really the centrepiece of the issues raised, so much of what follows concerns the book and reactions to it; in particular of course

the crucial section on the sociobiology of man - the attempt to give the social sciences a biological basis.

Development of Sociobiology

In the first chapter of his book Wilson describes the way in which biological sciences in the broadest sense have been moving over the years. In the '50s there existed an extensive middle ground of ethology and comparative psychology between the extremes of micro-biology (cell biology and neurophysiology) on the one hand and macro-biology (behavioural biology and population biology) on the other. Increasingly, the trend is towards a concentration on the two major disciplines of neurophysiology (the breakdown of how an animal works in molecular terms) and sociobiology (a quantitative science of animal behaviour in an evolutionary perspective).

Sociobiology, then, is absorbing much of the middle ground of comparative psychology and animal behaviour, and relating these to population biology and genetics. Wilson hopes that, eventually, the two great disciplines will enable us to understand and control human behaviour in a precise way.^{1a} It is this kind of statement which has contributed to Wilson's unpopularity, since it begs so many questions about the political and social consequences of this kind of research.

In commenting on the background to Wilson's work on the human species, we could say that two main lines have coalesced in Sociobiology. One is the long-established science of behaviour genetics and the other is the more highly popularised attempt by several authors in the last fifteen years to codify and explain man's behaviour in terms of animal behaviour.

Behaviour genetics has tended to develop along two separate avenues:-

- (1) Reductionist approach; starting from a single gene in a primitive organism, causing a point mutation of the gene and seeing the effect on the behaviour of the animal.
- (2) Macroscopic approach; observing the species variation in a basically stable behaviour pattern and selectively breeding for certain behaviours (e.g. in bees). It can be shown that individual genes control or modify particular aspects of behaviour.

In both these areas, the attempt is being made to see how behaviour is encoded genetically. There are two big problems in this: one *qualitative* - the gap between the gene and the phenotype (the behavioural phenomena for which the gene is the coded basis)

is so great that the assessment of the relationship between them is by no means straightforward; and one *quantitative* - what units can we use to measure behaviour and assess the differences in the behaviour patterns of species and species variants?

Sociobiology, in attempting to follow a similar macroscopic approach in the analysis of *social* behaviour has inherited these problems. It is particularly difficult to make any realistic quantitative assessments of social behaviour without protracted periods of intense study of large numbers of the social groups of the animals in question. Behaviours must be noted, described and contrasted according to other factors such as habitat, food availability, age and size of social group, etc., before even broad generalisations can be accurately drawn. This is the main stream of the study of the evolution of behaviour, considering social organisation as a higher form of adaptation to the environment. It is apparent that even closely related species may behave entirely differently in the same habitat, so a very close look at social behaviour is necessary before predictions can be made about one species from observations of another. A considerable amount of this kind of work has been done on primates⁴ as well as other animals, and particularly birds.⁵

In applying the techniques of sociobiology to man, Wilson has taken a step beyond the popular 'Naked Ape' school of human behaviour studies - the second strand to be drawn into his analysis. He has continued in the same mould - attempting to analyse human behaviour in the light of evolutionary history - but has applied a more rigorous and more quantitative technique. He points out^{1b} that the recent popular books in this field by Konrad Lorenz⁶, Desmond Morris⁷, Robert Ardrey⁸ and Lionel Tiger & Robin Fox⁹ illustrate a misleading method of behavioural analysis. These writers examine various small samples of animal behaviour and extrapolate them to man. The best available method is to examine a series of closely related species, close to man in phylogenetic terms, and determine which traits alter drastically from one to another (labile traits) and which stay relatively fixed (conservative traits). The conservative ones are the only ones which can be extrapolated at all, and these only tentatively, since the directions of quantum jumps in evolution are not easy to predict. At the extreme, it could be that all behavioural traits of closely related species are modified out of recognition in man. However, it would appear to be true that conservative traits, such as aggressive dominance systems, scaling of aggressive responses, prolonged maternal care, socialisation of young and a tendency towards matrilineal organisation are characteristics which we share with our primate cousins. Perhaps the most remarkable thing about man, however, is the great gulf between us and other primates in the range of unique characteristics we possess, such as language, elaborate culture, continuous sexual receptivity of

females, incest taboo, kinship networks and co-operative division of labour between the sexes.

The writers mentioned above called attention to the biological nature of man, his evolutionary history and the ways in which he is biologically equipped to deal with the environment. They corrected the behaviourist stimulus-response view of man which had been current and opened up a more constructive line of thinking. Wilson went yet further in examining the possible evolutionary mechanisms for our emergence as a species in semi-quantitative terms. In so doing, he laid himself open just as much as the behaviourists to the charge of dehumanising the human species. His, it seemed, was just a different kind of reductionism.

Sociobiology and its critics

Having examined something of the development of sociobiology in general and the approach of Wilson's book in particular, we shall now look at the arguments which were precipitated by its publication. These fall into two types; technical and philosophical/ideological criticism. For the purposes of this discussion, we shall add a third and make some observations on the subject from a Christian point of view.

1. *Technical criticism*

As mentioned before, most of the criticism of Wilson's book centres on the conclusions of his last chapter - that concerning the sociobiology of man.

The most significant step in the development of an evolutionary framework for human social behaviour is the advent of altruism. How can such an apparently non-adaptive trait survive? The problem was first raised by Darwin in *The Origin of Species* in connection with the evolution of sterile castes of social insects. The solution appears to be 'group selection': an individual sacrifices itself in order to benefit its group. If the group shares that individual's genetic endowment, the process is called kin-selection (a term coined by John Maynard Smith¹⁰). Hence, if an individual's altruism benefits his close relatives (who share his genes) even at the price of his own genetic fitness, his altruistic genes will be passed on. Wilson pays great attention to this and other concepts of group selection in chapter 5 of *Sociobiology*, developing a mathematical framework for the process, but his background assumptions have been strongly attacked.

The technical criticism has concentrated on Wilson's use of kin-selection as an explanation for the evolution of human characteristics, and his idea of a 'multiplier factor' which compounds the effects of cultural evolution. The arguments have

been assembled in a monograph by the anthropologist Marshall Sahlins.¹¹ Sahlins considers that the whole idea of kin-selection in the human species is fallacious because it depends upon the action of individuals being affected by a kind of 'mystic knowledge' of consanguinity. Those who reap the benefits of altruism must have been recognised by the altruistic individual as related *genetically* whereas in fact our recognition of kinship is *cultural* where our actions towards others are concerned.^{11a} Even in primitive societies today, most of a man's genetically closest relatives (e.g. sisters, brothers, daughters) do not live with him^{11b}, and it is where people live that determines kinship rather than pure genealogy.

Human beings, Sahlins continues, reproduce as social creatures, rather than just as individuals. Arranged marriages, for instance, perpetuate cultural systems rather than individual sets of genes, and it is cultural systems which are the stuff of humanity.^{11c} Human culture is unique in its possession and use of language with its symbolic power to generate meaning over and above the individuals involved.^{11d} The human world is thus something separate from the individuals involved in constructing it. This idea is reminiscent of Popper's "World 3" - the material of human culture and experience which is passed on through the generations.

It is very difficult to assess the validity of Sahlins' argument in quantitative terms. To tell how Wilson's equations would be modified by less emphasis on strict genealogical altruism, one would require to know a number of parameters which are extremely hard to define. On the face of it, though, the technical criticism has merit and human sociobiology as a science stands or falls on its theory of kin-selection.^{11e}

Sahlins is in accord with Wilson in criticising the 'vulgar sociobiology' of Lorenz, Morris, Ardrey, Tiger & Fox and others who assume that human social behaviour is a direct manifestation of individual biological propensities laid down in the course of evolution. This view is far too simplistic, being a kind of anthropomorphism in reverse, an excessive extrapolation of the social behaviour of animals to that of man. Again, the uniqueness of human culture and its effect on behaviour over and above genetic endowment must be stressed.^{11f} Wilson also criticises the determinism of Lorenz^{1c} and has now explicitly stated^{2b} that "culture is clearly the dominant force" in the genesis of human behaviour. This may not be so in that of other animals who do not possess the symbolic power that language represents.

2. *Philosophical criticism*

Here we are observing this generation's version of the 'nurture vs. nature' debate. Three points of interest emerge.

Firstly, to what extent is sociobiology just a new form of biological determinism?, secondly how much of the criticism on such grounds is merely invalid logic on the part of the critics?, and thirdly, what are the political implications of sociobiology - is Wilson another Jensen?

I think it must be clear that Wilson is not a died in the wool reductionist, even though he attempts a synthesis of many disciplines into one new one! He is explicit in stating, as mentioned above, that culture is dominant over genetics in the determination of human social behaviour. This idea, too, appears reasonably clearly in *Sociobiology* itself^{2b}, although since the book is concerned with analysing the elements of behaviour which are genetically based, it is hardly surprising that the cultural theme is not stressed. Nevertheless, Wilson has been berated by his critics for implying that the present state of society is the result of our genes and therefore somehow inevitable.^{2c}

Sahlins accuses sociobiologists in general of the tendency to reduce human social behaviour to genetics in the same way that is done with, for example, insects. He points out helpfully, though, that culture is to biology no more than biology is to chemistry and physics. That is, there is a hierarchical relationship between culture and biology; and "culture is biology plus the symbolic faculty". This is a useful point and one with which I suspect Wilson would thoroughly agree!

There is something particularly unsatisfactory in the idea of genetic determinism that we see in Wilson and works like Dawkins' *The Selfish Gene*.¹² One is reminded of the off-quoted "a chicken is the egg's way of producing another egg." The picture conjured up is one of conspiring molecules plotting and scheming. The basis of DNA's self-maximisation process is not to be seen in these anthropomorphic terms, of course, any more than the plotting and scheming of men is to be seen in terms of DNA maximisation.

To move on to the second point, it is evident that Wilson's critics attack a position somewhat beyond that which Wilson himself adopts.^{2b} They believe that his work is tantamount to an attempt to justify Western society on biological grounds. This is really a logical error on their part, although Wilson does not go very far in refuting such an interpretation in the original work. The critics are committing the Naturalistic Fallacy in interpreting *Sociobiology*. They have assumed that Wilson's statements about the nature of man imply that he holds that the present state of man is natural and correct. In other words, deriving propositions about what ought to be the case from propositions about what is the case, which is not *logically* possible. Furthermore, it is not possible to extrapolate from the genetic background of mankind to derive what an ideal social

set-up for today should be. The indications are always ambiguous and a logical connection between nature and ethics cannot be made.

For example, the Lorenz and Ardrey school postulate that our humanity is a product of our aggression; that we have developed all that we call human because our species killed for a living for millions of years.^{8a} So we have to be extremely careful about this fiendish proclivity in our very nature. However, it could also be argued^{13a} that it was the co-operative nature of the hunt and the sharing of spoils which was the spur to our development as human beings, in which case, co-operativity and sharing should be our prime genetic endowment. Clearly neither view is exclusively true. In any case, whatever the genetic background, the plasticity of behaviour in response to different environments is immense, even in primates.^{13b} In human beings, with cultural effects also coming into play, the gap between genes and behaviour is vast indeed.

The question of sex roles is another case in point. Wilson stresses that the universality of male dominance in primates and human society suggests that it is not unreasonable to postulate a genetic element in such a 'conservative' trait (see above). But again, even if male dominance is in our genes, this "cannot be used to bolster a continuation of social and economic inequalities that are embedded in so many cultural traditions".^{13c} What was biologically sound two million years ago is not necessarily social justice today, and to say it is involves the naturalistic fallacy.

It is unfortunate the Wilson did not anticipate in the first place that people would fall into this trap in interpreting his work. It is also unfortunate, though, that his critics have almost reached the point of denying that there is any genetic element in behaviour at all.^{2b} This is virtually a Skinnerian behaviourist position which they (and Wilson) also attack.

This brings us to the third point, the political and ideological implications of Sociobiology. Most of the vehement criticism Wilson has received has been from the radical end of the political spectrum largely on the grounds of the sociobiologists' use of capitalist language and philosophy. Sahlins^{11h} is highly critical of Wilson's use of economic 'market place' terminology, the ideas of individual advantage and the strong deliberately trying to maximise their genetic profit. Selection in the Darwinian sense is essentially passive, he says, so creatures don't find themselves with a set of attributes and deliberately try to maximise their successful offspring. It is common to find the presuppositions of a particular society in its writings about biology. American sociobiologists like Wilson and, more particularly, R.L. Trivers,¹⁴ have assimilated into their writings

not just the language, but the assumptions of Western society, particularly the competitive and acquisitive characteristics. "Of course it is true", says Sahlins,¹¹ⁱ "that all Americans are human, but it is not true that all humans are American - and still less that all animals are Americans".

Some of this criticism is no doubt justified, like Wilson's turns of phrase in describing animal behaviour in human terms such as 'slavery'. These shorthand metaphors lend persuasiveness to the similarities drawn between biological determinism in lower animals and man (see ref.3, p.5). However, some of the critics' rhetoric can be rapidly derailed, as it merely indicates a superficial knowledge of the book.^{2b} There seems little point in attacking turns of phrase unless there really is a sinister ulterior motive behind them. I suspect one would require a particularly suspicious nature to detect a serious intention on Wilson's behalf of following in the footsteps of Spencer's ideas of social determinism¹⁵ and the pernicious 'Social Darwinism' that followed.

It is unlikely and perhaps undesirable that science will ever be entirely culture-free, but perhaps Sociobiology needs to free itself from some of these inbuilt assumptions and, particularly, to recognise the passivity of natural selection more clearly. What is more important, from the political point of view, is that social policy must not be guided by such culture-dependent science, particularly when the problems of method and interpretation discussed above make many conclusions highly tentative. Perhaps we should be concerned that criminologists in Holland are planning a survey of prisoners to find genetic links with aggression.¹⁶ What will happen to those who carry the gene but, for some reason (genetic or cultural), do not exhibit the behaviour, will they also be placed under restraint? There have been many abortive attempts to tie down 'undesirable' behaviour in such ways.^{2c} They have usually turned out to be excuses for maintaining the status quo, or suppressing a minority group.

Politicians are not usually as aware of the limitations of science as are scientists themselves. The result seems to be that, like the atom bomb, Sociobiology is perfectly safe as long as no use is made of it.

A Christian Critique

Christian thought would parallel some of the issues already discussed here. The idea of biological determinism and other forms of reductionism have often been discussed in Christian circles and satisfactorily resolved to a large extent by the ideas of hierarchical levels of explanation and the distinction between physical and logical indeterminacy.¹⁷ On the political and ideological front, Christians have been slow to speak in the past

and, in their fear of espousing any political philosophy, have tended to collapse into reaction. Hopefully, though, Christians now are more aware of the dangers of 'Social Darwinism' and its descendants, and are speaking out against the evils of discrimination and prejudice rationalised on biological grounds. In our caution, we are often slower than radical groups to recognise a danger, but we need to take our time to ensure that our arguments are not lost in rhetoric as they were in Darwin's day.³

What of the more direct attacks of the sociobiologists on what we might term our own ground, the biological basis of religion and ethics? Wilson sees religion in terms of a basic human need to conform.^{1d} Human beings, it is true, are astonishingly easily indoctrinated, a trait which perhaps has a genetic origin since it is universal. Bergson has suggested that we need to restrict choice because human behaviour is so plastic. Without restrictions, our behaviour would be chaotic.^{1e} There are plenty of societies which appear to function quite adequately with sets of religious and moral beliefs quite alien to our own, so it seems that "virtually any set of conventions works better than none at all".^{1e} However, the fact that religion is universal and man indoctrinable says nothing about whether or not religious beliefs are true. It may well be the case that conformity has survival value, but not all conformisms are the same. It is interesting that we see conformism in political as well as religious circles, both have their fanatics and their attacks on 'backsliders' or 'bourgeois individualists'. The validity of the beliefs, however, is independent of human genetic makeup, although presumably there should be an optimum 'set of conventions' to conform to. The Christian has little doubt that it is his own, but then so have adherents of other beliefs.

In the field of ethics, Wilson's opinion again appears to be strongly influenced by his cultural background. His claim is that a system of ethics based on fairness (or in Christian terms justice) is biologically incorrect, since 'the human genotype and the ecosystem in which it evolved were fashioned out of extreme unfairness'.^{1e} Here Wilson himself seems to be committing the Naturalistic Fallacy, since far from indicating that we should continue to be unfair it is perhaps precisely because of this background that we have systems of ethics at all. That is, assuming the orthodox evolutionary view, systems which ensure conformity and hence co-operation and sharing, may have provided the motive power for our evolution as human beings. Again we see that an evolutionary background does not logically determine a system of ethics. We could say it should make us unfair; we could say it should make us co-operative. In fact we see both these traits. There is simply no logical connection between biological background and a moral choice.¹⁸

So, in Christian thinking, we can recognise that Sociobiology, like any other science, adds to our understanding of God's universe. However, we must ensure that it does not at the same time detract from our appreciation of it. Wilson's radical critics are acutely aware of this, pointing out that it is man's uniqueness which should be stressed together with his ability to transcend the merely biological with culture, language and the capacity for symbolic thought.^{2c, 11j} For Christians, the New Synthesis can be illuminating, but it must not be allowed to blind us to other logical views of physical reality.

Conclusion

Sociobiology as a science is in its early days. We have learnt a great deal from it so far, gaining a greater appreciation of our continuity with the rest of the animal kingdom. However, Wilson's excessive optimism about the realms of knowledge which the subject will open up should put us on our guard. The evidence is not there. We should be even more concerned at his suggestions that the findings of sociobiologists will lead us on to successful social engineering. This must be anathema to the free man - the image of God. Wilson sees the dangers but forgets, perhaps, that it has all happened before. The power science gives us easily gets out of control in the hands of the few.

Above biology is culture. In the words of Huxley, the evolutionist, man "finds himself in the unexpected position of business manager for the Cosmic process of evolution".¹⁹ Not only is this so in the sense that man has the power of life and death over the planet, but that his creative, symbolic powers separate him from the animal kingdom and allow him to transcend his biology.

And above Culture is God. At yet a higher level, we see a higher transcendence, a higher level of explanation and logical description. Let us not be tempted to examine the foundations without ever standing back to admire the building.

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 17 See e.g. D.M. MacKay, *The Clockwork Image*, 1974
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Footnote:

Since the above paper was written, the following book has been published:

The Sociobiology Debate: Readings on Ethical and Scientific Issues,
 edited by A.L. Caplan, Harper and Row, New York, 1978.
 514 pp. U.K. price £7.95.

It consists of readings selected from the works of a large number of authors, from Charles Darwin and Herbert Spencer to the present day, who have made significant contributions to what is now called the Sociobiological Debate. It provides a balanced view of the debate for readers who do not have the time or the facilities for surveying the great mass of original publications.

ESSAY REVIEW

CHRISTIANS AND EVOLUTION

Dr. James Moore, of the Open University, has written an exceptionally interesting book on the later Darwinian controversies which will long be a 'must' for those interested in the relations of science and religion, especially at the end of the 19th century.

The first four chapters, constituting Part I, deal with the unfortunate military metaphor commonly used by historians to describe the encounter between religion and science. It transpires that this was largely the invention of J.W. Draper (author of *History of the Conflict between Religion and Science*, 1875) and of A.D. White (author of *A History of the Warfare of Science and Theology*, 2 vols. 1896): the biographical details concerning these men and of how they came to produce their influential books is of great interest.

It is shown that the conflict picture is almost wholly misleading. Moore agrees with John Baillie (1951) that "Science and faith represent not so much the outlooks of two different kinds of men as two elements that are together present, though in varying degrees, in the minds of most of us" (p.82). Although disagreements and verbal battles between theologians and scientists sometimes occurred (notably the Samuel Wilberforce v. T.H. Huxley episode at the British Association in 1860) they were rare. Disagreements between scientists, on the other hand, were common. Of course, in the early days, the two professions were often combined.

The polemics of the pugilistic T.H. Huxley are reviewed at some length. It is interesting to note that many of the fore-runners of American Fundamentalists accepted Darwinism, notably A.H. Strong, B.B. Warfield, James Orr and G.F. Wright, the geologist. Fundamentalist opposition to evolution was rare before 1920, the year in which the word was coined. Careful study shows that the popular story of theologians opposing but scientists accepting Darwinism and evolution is near to the exact opposite of the truth (p.88). Theologians tended to hold that evolution describes what we can observe of how God acts on His world.

Asa Gray, the Harvard botanist, in particular, pressed this view on his contemporaries and nearly all leading Christian thinkers in GB and USA came to terms with Darwinism and evolution.

The spiritual and often tragic effects of Darwinism (evolution by natural selection) are discussed in Chapter 4. The reactions of well known thinkers of the day are discussed in detail, Lyell, Romanes, and St. George Mivart in particular, for all of whom as for many others Darwin had created spiritual conflicts which came at a time when Victorian intellectual currents were overwhelming all but the strongest faith. (p.110).

According to Festinger's well known analysis, new knowledge brings conflict with old. A choice is made: there is always some dissonance between the opinion that has been chosen as correct and counter arguments that have been rejected: finally efforts are made to *reduce* the dissonance. The intellectual ruses used to reduce that dissonance are a recurrent theme in this book.

Part 2 (chapters 5-8) deals with Darwinism and evolutionary thought. Christian Darwinians (who accepted Darwin's theory of evolution by natural selection) and Christian Darwinists (who accepted evolution, especially an evolutionary theory of the universe, but not natural selection as a major cause) occupy the scene. There are good chapters on Lamarckianism, the vogue of Herbert Spencer and Neo-Darwinism. Social Darwinism receives brief attention and in the chapter on Spencer it is interesting to note that Spencer basked in Darwin's public approval of his writings though privately Darwin complained of Spencer's detestable style and claimed that he never once benefited from any one of Spencer's voluminous writings. (p.162).

Part 3 deals with Theology and Evolution. Here the responses to Darwin of 28 Christian controversialists are given and the philosophical and theological lineage of their views are traced. Chapter 9 deals with Christian Anti-Darwinians and chapter 10 with Christian Darwinists. Arguments used were for the most part basically philosophical, rather than biblical. To many it seemed impossible that natural selection was compatible with Providence, but Darwinists (e.g. Henry Drummond) commonly linked theology with Spencer's alluring picture of universal evolution. They tacitly assumed that "any evolution less than universal evolution cannot be a method worthy of the universal and omnipotent Creator".

Chapter 11, on Christian Darwinism, tells *inter alia* how A.L. Moore, (High church, England), Asa Gray and G.F. Wright (both evangelicals, USA) found in Darwinian evolution the rehabilitation of the argument from design. Asa Gray, (p.269f) for example, thought of evolution by natural selection as a physical theory, comparable with the law of gravity. Final causes lay beyond its scope, and it therefore introduced no "new kind of scientific

difficulty" for religion. The argument from design was unaffected - indeed strengthened by Darwin's work for natural selection greatly reduced the difficulty inherent in the theory of special creation of species, that useless organs could hardly have been specially created.

Darwin was delighted with Asa Gray's argument, and arranged for Gray's *Darwiniana* to be published in England, he himself underwriting the cost. After long correspondence with Gray Darwin "found himself unable to follow Gray in believing that design extended from the whole of nature to all its parts", for example that particular swallows are appointed to snap up particular gnats. "And if these phenomena were not designed, Darwin saw no need to believe that the evolution of life, which involves nothing but similar, apparently random, occurrences was itself specially designed" (p.274). Gray maintained his ground but Darwin lapsed into agnosticism; he did not, however, adopt an anti-clerical or anti-religious stance.

Chapter 12 is concerned with the bearings of Darwinism and evolutionary theories other than the strictly Darwinian (called Darwinisticism) on theology.

In the last resort Darwin's theory of natural selection was theological in origin. It combined ideas from Paley's *Natural Theology* with others from Malthus' *Principles of Population*. Paley believed that God causes species to adapt to their environment and he cited impressive instances of this adaptation. Malthus argued that left to itself a population would always increase faster than the food supply so that the fittest people would survive and the rest would die. This, he said, was a law ordained by God for the betterment of the race. But for the existence of this law there would be no "motive...sufficiently strong to overcome the acknowledged indolence of man". Thus virtue was encouraged leading to the "improvement of the human mind". This view gave no encouragement to the dogma of universal progress.

Paley had argued that adaptation to environment took place through divine action; Malthus that struggle and overpopulation were necessary in order that desirable virtues should exist and he saw in this arrangement signs of the goodness of God. Darwin combined the two views and applied them to nature in general. Struggle results in adaptive improvement and transmutation of species, but not necessarily to overall progress. Only one element was missing - God, and in its loss Darwin lost his faith.

The role of God in the natural order was the issue. For Paley the laws of nature are modes of divine action. God "upholds all things by his power" the power "penetrating the inmost recesses of all substance." God is everywhere yet nature is not divine.

For Malthus the situation was similar. "No stone shall fall, or plant rise, without the immediate agency of divine power". This is what Darwin could not accept. It was not God but law which accounted for what happened in nature.

Moore has discovered that the biblical Christians who accepted Darwinism readily were those reared in the Calvinist tradition. For the Calvinist, free will and predestination are both true. To man this seems contradictory but God's ways are higher than man's and attempts at reconciliation are a waste of time. In a rather similar way, said the Calvinists, God (or God's freewill) may direct the course of nature though to us it seems to be actuated by unchangeable laws, to be predestined. Natural selection was one of those laws and could account for modification by descent, but God could direct its course none the less. Darwin's doctrine of evolution had therefore added nothing to what the Calvinist knew already. "The Darwinian", said G.F. Wright, "may shelter himself behind Calvinism from charges of infidelity." In this way the dissonance between teleology and natural selection was diluted.

Both Wright and Gray also argued that philosophically evolution is not harder to accept than traducianism (Tertullian's doctrine that the soul of a child is formed from the souls of its parents) which many Christians have held to be true, even though they also claim that the soul is a creation of God. (p.337)

Anglo-catholic Darwinians, on the other hand, reconciled Darwinism with theology by appealing to the doctrine of the Trinity. (p.338) The doctrine of the immanence of the divine logos, implied in trinitarianism, enabled religion to "claim and absorb the new truths of our scientific age," said A.L. Moore. And again, "Either God is everywhere present in nature or He is nowhere... Everything must be His work or nothing. We must frankly return to the Christian view of divine agency, the immanence of Divine power in nature from end to end... or we must banish Him altogether." Charles Kingsley, and F.D. Maurice held similar views. L.F. Moore found consolation in the consideration that the evil of the struggle for existence was offset by the consideration that suffering is universal: natural selection helped because it pointed to the possibility of upward progress.

Turning to Charles Kingsley, scientists, he said, "find they have got rid of an interfering God [and] have to choose between the absolute empire of accident, and a living immanent ever-working God". More, Kingsley and Maurice had no sympathy for Calvinism. Kingsley declaring that it was not a theology but a "demonology".

Though they did not stress the doctrine of the Trinity as High Churchmen did, Calvinists did not neglect it either. James McCosh, for example, said that since God fills universal space, it

is reasonable to hold that He is an active agent in the universe.

Some of the Calvinists, such as Charles Hodge and J.W. Dawson, could not envisage creation except by interference with the course of nature. Wright, in particular, was suspicious of the doctrine of divine immanence, at least in the form set forth by its extreme advocates. Scientifically it was a threat to Darwin's causal theory of evolution: religiously it was likely to lead to pantheism and the denial of free will. Like those of his contemporaries Wright's views were far from clear. Explaining his view of immanence he held that the 'web of nature' remains intact, but additional threads -- the variations on which natural selection depends -- are spun from the substratum of immanent creativity and inserted into the fabric in order to "increase the complexity and add to the beauty of the weave". (p.340)

Many conservative Christians were happy enough to embrace Darwinism, and even found that it confirmed and strengthened their faith. But liberals, or those who drifted towards liberalism in theology, became not Darwinians but Darwinists. In their effort to reduce dissonance, they rejected science without realising the fact. Michael Foster has shown that before science could begin two basic ideas inherited from the ancients had to be destroyed - (1) that natural objects are endowed with an active potency to realise their forms, and (2) that natural objects are "the appearance of a god and their growth or motion the manifestation of divine activity". In each case, argues Foster, it was the Christian doctrine of creation which destroyed these notions and made empirical science possible. "Yet", says J.R. Moore (p.342) "the Greek ideas which orthodox doctrine displaced were virtually what the Christian Darwinists presupposed in their efforts at dissonance reduction". Evolution was explained by innate tendency, internal directing force, protoplasmic power, orthogenesis or natural law.

The Darwinists rejected both Calvinism and Darwinism, bowing rather to Darwin's detractors and critics, and were influenced especially by Lamarck and Spencer.

A short chapter on 'Coming to Terms with Darwin' concludes this fascinating book. The author reminds us that the struggle to come to terms with Darwin has not ended. Evolutionary naturalism and evolutionary liberalism advance like an irresistible tide against which the writings of Christian Darwinians and Christian Darwinists now make little impression. They fall now as they failed in the past to impress the greatest minds among their contemporaries, Darwin included, and they fail to convince simple folk who often remain firmly anti-evolutionary. Besides, even if Darwinism could be squared with traditional Christianity, it might be squared equally convincingly with other metaphysical doctrines.

Finally there are 47 pages of notes, a bibliography of 58 pages (the first on the subject to be published) and an excellent index. Such in barest outline is the burthen of this book. If one may venture one criticism it is that in his efforts to be fair to Darwin, the author says something, but not enough, about the ethical blindfold which evolutionism had brought to our world. In a recent book² Stanley Jaki reminds us again of how in reference to the civil war in America Darwin could note that "in the long run a million horrid deaths would be amply repaid in the cause of humanity", or registered with glee that "the more civilised Causasian races have beaten the Turkish hollow in the struggle for existence" and of how it was not the author of *Mein Kampf* but of the *Origin of Species* who wrote "looking at the world at no very distant date, what an endless number of the lower races will have been eliminated by the higher civilised races throughout the world." Nor is much said, save for a passing quotation from a letter, of Darwin's admiration for Ernst Haeckel who poisoned the minds of the German nation against Christianity and non-Aryan races, including that of the youthful Hitler. (See Gasman³.)

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G.E. BARNES and A. RADCLIFFE-SMITH

THEISTIC EVOLUTION vs CREATION

Theistic Evolutionists hold that since God is at work in all natural processes, there is no reason why we should not see His creative activity in evolution also. There is, therefore, no clash between evolution as held by biologists and Christian faith. So-called 'Creationists', on the other hand, hold that evolution is anti-biblical and cannot, in any case account for the origin of living forms. Although variation within limits is a fact, the existence of widely divergent groups of plants and animals can only be accounted for by a limited number of specific creative, and therefore miraculous, acts of God in a distant past.

The recrudescence of a strong 'creationist' school of thought in very recent years, especially in USA, has tended to deepen the rift between these points of view. When, recently, what seemed to be one of the best Creationist books we have encountered¹ was received for review, we sent it to Mr. Gordon Barnes, the Chairman of the Council of the VI, who is a researcher and Lecturer in biology at Chelsea Polytechnic and a Theistic Evolutionist. He kindly sent the following review.-Ed.

Review by Gordon E. Barnes.

J.K. Anderson and H.G. Coffin, *Fossils in Focus*, Zondervan, Grand Rapid, Michigan, 1977, 95pp., PB, UK price £1.95 from Paternoster Press, Exeter.

The claim of this book is that the fossil record supports the view that evolution has occurred to only a very limited extent, namely within, say, the order or family, and that such groups have all been created separately and independently. The book thus represents the so-called 'creationist' school of thought, which

appears to be gaining increasing influence amongst Christians in America.

It is, in fact, one of the more reasonable products of that school. One of the authors is a professional palaeontologist; and, as one would therefore expect, the facts of the fossil record are accurately presented. The writing is objective and completely free from *argumentum ad hominem*. The book very clearly sets out the negative aspects of the palaeontological evidence, *e.g.*, the dearth of pre-Cambrian fossils, the paucity of intermediate types between major taxonomic groups, and frequent absence of particular fossil species from levels where the theory of evolution might encourage one to look for them. These are all important matters which any theorizing about the origins of species must take into account. If the book successfully warns young people (it is aimed at American students) against an uncritical acceptance of the speculative constructions called 'phylogenetic trees' often presented as fact in elementary textbooks and popular works, it will serve a very useful purpose.

There are, however, in the book some major flaws which result from an apparent failure of the authors to appreciate the scientific method or even the nature of the theories that they discuss. These theories they call 'models for origins'. They describe what they regard as "the principal models of origins and consider them in the light of the fossil record" (p.15). "Each explanation", they write, "postulates that some mechanism in the past produced life", but in actual fact the models they mention (with the exception of the 'creation model' which has nothing to do with mechanism) are not concerned with the origin of life at all - they are theories of speciation. Furthermore, to consider theories of mechanism, whether of the origin of life or of species, 'in the light of the fossil record' seems to be particularly misguided. The fossil record merely indicates the presence of a particular time and place, and says nothing about the mechanism that led to its being there.

Other naive views of the scientific method are indicated by the assertions (p.15) that (a) because the mechanisms of origin operated in the past they are not amenable to laboratory investigation, and (b) they cannot therefore be proved or disproved (*sic*) with the rigour normally expected in science. Such views would question the validity of almost all scientific inference.

Amongst the models for origins is one called the 'creation model' (others are neo-Darwinism, megamutations of Goldschmidt and Schindewolf, all allopatric speciation). It is of interest that this model is not adequately defined, despite the fact that the argument of the book is that it is the only model that the fossil record supports. Whereas in ch.2 the other models are explained

in some detail, all we are told about the creation model is that "According to this model, all major 'kinds' of organisms were created individually" (p.20). This merely substitutes a verb for a noun, and still does not tell what 'creation' implies. (It also leaves us guessing as to what the 'kinds' are, although subsequent chapters give us the hint that they are groups between which no intermediate types have been found.)

Chapter 8, however, tells us that "the creation model requires that we believe life is a result, not of naturalistic processes, but of direct intervention from a supernatural Creator ... It is a faith commitment that is based upon objective evidence from the fossil records" (p.80). If this is so, one is prompted to ask what sort of objective criteria could be applied to the fossil record to determine whether a creatorial intervention had taken place. There is no evidence in the book that the authors have given any consideration to the objective implications of their creation model. If a divine intervention were to produce a new kind of mammal today, what would a scientist observe: a sudden displacement of air by living material in the form of one or more individuals of a new species; or the sudden or slow conversion of inanimate matter into such individuals; or the birth of such individuals from a very different existing species of mammal; or the hatching of such forms out of a reptilian egg? The objective descriptions of these events would be in terms of either spontaneous generation (in the case of the first two) or very rapid evolution (in the case of the last two). The biologist, as a natural scientist, would not be able to devise any objective test for supernatural intervention or for the absence of 'naturalistic processes' (whatever that phrase means). If creation could not be recognized by objective criteria at the present time while the process is actually taking place, it is difficult to conceive of "objective evidence from fossil records" that would support the authors' creation model. It is 'through faith' that the Christian understands that things are created (Heb. 11:3) and not because of objective evidence.

But what about the gaps in the fossil record between major taxonomic groups of organisms? We may not agree with the book that these are evidence of creation, but one has to admit that they are a potential embarrassment to the theory of total evolution. But Anderson and Coffin grossly overstate their case. As they point out, the great majority of all the phyla and classes were in existence by Cambrian times when good fossil records start. The scarcity of pre-Cambrian fossils of intermediate forms and common ancestors does not mean that such forms did not exist: it means merely that evidence for them is meagre. If such forms ever did exist the most that we could hope for is that some of them produced descendants that persisted in a somewhat similar form until such times as they might be expected to leave fossil remains or, in the case of soft-bodied forms, until the present day when

they could be found alive. A good example of such an intermediate group is the Onychophora represented today by *Peripatus* and in the Cambrian by *Asheasia*. The book mentions these (pp. 41-42) pointing out that their resemblances to both annelids and arthropods; and then by a strange piece of self-contradictory logic dismisses them as evidence.

Other possible intermediate forms are dismissed for equally inadequate reasons. For example, *Seymouria* as an annectant between amphibians and reptiles is ruled out for two reasons. Firstly, it is found in the Lower Permian while certain other reptiles are found a little earlier in the Pennsylvanian (= late Carboniferous), and therefore it could not be ancestral to the reptiles. Nobody, however, is claiming that it is necessarily ancestral: to regard *Seymouria* as an intermediate type is merely to imply that it is very similar to species which were somewhere on the phylogenetic line from amphibians to reptiles. Secondly, the evidence for its intermediacy comes only from skeletal remains, and these are "not always a good indication of an organism's relationship" (p.53). But no attempt, however, is made to demonstrate that skeletal evidence is not a good indication in this case. In fact, the skeletal anatomy of *Seymouria* is known in considerable detail; and J.Z. Young writes: "Its characteristics are so exactly intermediate between those of amphibians and reptiles that it is not possible to place it definitely with either group... This intermediacy is shown in almost every structure of the body." (*Life of Vertebrates*, OUP, 1950).

To discuss all the rejected intermediates would take too long; but a general criticism is that the authors seem to have certain preconceived ideas about the structure of annectant forms, and thus reject quite convincing intermediates which do not conform to those ideas.

Other criticisms could be levelled against the book on biological rather than palaeontological grounds: e.g., woolly thinking in comparative anatomy and in genetics (pp. 22-23). But my main criticism is that almost the whole argument of the book is based upon lack of evidence. I realise that the book is intended to deal only with fossils; and I am sure that, if fossils constituted the only type of evidence available to us, no one could seriously argue a case for large-scale evolution (say, from one phylum to another). But fossils are not the only evidence: comparative anatomy, comparative embryology, genetics, biochemistry, all have their contribution to make to the enquiry into origins; and their evidence often complements that of fossils. The theory of all-embracing evolution becomes, I believe, the only currently-tenable scientific theory of origins only when all the available evidence is taken into consideration. To argue, as Anderson and Coffin do, that because fossils do not bear witness to large-scale evolution it could not have occurred, is rather like denying the

occurrence of a road accident because no witnesses have been found who saw it happen. Such an argument becomes a bit weak when the road is seen to be strewn with wreckage.

But why, I wonder do adherents of the 'creationist' view feel that they must oppose the theory of evolution in order to maintain the biblical doctrine of creation? Is there anything in the biblical teaching which implies particular mechanisms of origin or objectively discernible discontinuities? Is there any reason why God, who today achieves His purposes by operations that science can describe in terms of regular mechanisms, should not have done so in the past? It would be very helpful if 'creationists' would let us have their views on such questions.

GORDEN E BARNES

In response to Mr. Barnes' invitation we invited Mr. A. Radcliffe-Smith, Secretary of the Evolution Protest Movement, who is also a professional biologist (botanist) to give us his reaction to the above review.

Comments by Mr. A. Radcliffe-Smith

In his review, Barnes accuses Anderson and Coffin of confusing the origin of life with that of speciation. But when they use the word 'origins' in the plural, undoubtedly they are encompassing different levels of origins - not only the origin of life itself, but also of the varied forms which life takes, at various hierarchical levels. After all, Darwin himself was primarily concerned with the origin of 'species' (although, in actual fact, much of his material dealt merely with the origin of cultivars) - the question of the origin of life itself he rarely touched upon.

Anderson and Coffin's statement that the developments of 4.5 thousand million years are beyond the scope of laboratory investigation would seem to be sensible enough. It is hardly fair to say that it reveals "a naive view of the scientific method." Of course extrapolation is a part of the scientific method, but all scientists recognise that conclusions reached by extrapolation become increasingly unreliable as the range of extrapolation is extended. Orthodox evolutionary theory seems to demand extrapolation so extended that any conclusion to which it leads must, at best, be extremely tentative; at worst, quite misleading.

Used as an argument the question posed by the reviewer as to how one would recognise a creative event today would appear to be double edged. The evolutionary biologist, too, might be asked how he would recognize an upward evolutionary step. How would he

know that a break in a chromosome, an interchange of base-pairs in DNA, or a chick with extra long beak hatching from an egg was such a step? Would it be fair to insist on a definitive answer? It is difficult to see how the asking of such questions can prove helpful for it is evident that they cannot be answered either on the creationist or the evolutionary view.

Assuredly faith is the means whereby God's Word is believed but, if we allow it to do so, reason can carry us to the point where we see the futility of human philosophising, and from such a point the leap of faith may be made. In my own case, reason showed me how impossible it is to believe in evolution - I then switched by the faith leap to believe in Creation instead.

Mr. Barnes speaks of "all-embracing evolution" supposedly supported by the lines of evidence he mentions. In one sense we may agree with him. It is usual to speak of the evolution of motor cars and the arguments that they have evolved run parallel to the arguments that biological organisms have evolved. We have their comparative embryology (similarity in early stages of manufacture), their comparative anatomy (similar basic design), their similar body chemistry (same materials largely used, same hydrocarbon combustion chemistry), and a fossil record (in museums and junk yards) showing that the highly developed forms came later than the first much more primitive models. There are also, we may be sure, a few missing links between divergent forms. For example, after the mutation to electric propulsion in place of the internal combustion engine, there were probably intermediates in which a small engine was kept for stand by. There is, of course, a difference in that cars do not reproduce their kind whereas biological organisms do so, but as there is no known mechanism (such as natural selection) which will account for biological macromutation from 'lower' to 'higher' forms (a fact now widely conceded by evolutionary biologists), reproduction does not render the use of the analogy unfair.

Arguments for motor car and biological evolution are, then, basically the same. In the case of motor cars evolution is fully compatible with creation: indeed, it demands creation. Mr. Barnes does not explain why he rules it out for biology.

In answer to the reviewer's last question, biblical teaching is that God's activity now is different from what it was at Creation. Now He is "upholding all things by the word of His power" (Heb. 1:3) - present tense. Then, He "created all things" (Rev. 4:11) - past tense. Creative activity is finished (discounting such creative acts as were demonstrated in the miracles wrought by Christ as part of His earthly ministry). Maintenance of what was created is now the order of the day.

I find it difficult to understand how 'evolution' (the hypothesis that the power responsible for *creative* biological change rests *within* nature) can be supported either by scientific evidence, or by a fair appraisalment of biblical teaching.

A. RADCLIFFE-SMITH

A reply to Mr. Radcliffe-Smith

I am grateful to Mr. Radcliffe-Smith for his reply to the questions raised in the last paragraph of my review.

I do not wish to engage in a verbal duel with a fellow biologist whose views I respect; but as he has also asked some questions of me, perhaps I could give a brief answer.

Firstly, in asking how I would recognize a "break in a chromosome" (etc.) as constituting an "upward evolutionary step", I think he has misunderstood my argument. For one thing, I should not want to use the word 'upward' in this context, as it involves a scientifically unjustified value judgment (G.E. Barnes, *Concepts of Randomness and Progress in Evolution*, this JOURNAL, 1958, 90, 3, 183-204). But - and this is the important point in this discussion - if biologists observe 'descent with modification' occurring (and 'creationists' themselves do not deny that it does occur), then the techniques of cytogenetics and population genetics can, in principle and often in practice, offer a mechanistic explanation of the changes that are occurring. We thus have an evolutionary explanation that can be scientifically tested for tenability. The 'creationist', however, would want to explain the changes as the result of God's creatorial activity, and I as a Christian would agree with him: but I cannot envisage what sort of *objective* test he could use to support his claim. The 'creationist's' view is, I believe, not a scientific one. As Mr. Radcliffe-Smith acknowledges, his own belief in creation is an act of faith.

Secondly, having argued that evolution of the motor car and evolution of organisms are somewhat analogous and that the first does not preclude creative activity, he asks why I rule out creation for biology. The question appears to be ambiguous. If he is asking why I do not bring the concept of creation into biology as a science, then I have already given my answer: creation is not a scientific category. If, however, he is asking why I rule out God's creative activity in the history of life, then the answer is that I do not. Even if, as a biologist, I could give a full mechanistic explanation of all that is known about the origins of life and species, I should still, by faith, assert that God is Creator in the biblical sense that He planned, He initiated, and He

maintains, the whole of the history of the universe, including life.

This brings me to the third important point that Mr. Radcliffe-Smith raises. I am not convinced that the Bible does really differentiate between 'creation' in the past and 'upholding' in the present. The Old Testament uses the same Hebrew word (*barā*) for creation in Gen. 1 as for subsequent activity of God in history (e.g., Ps. 51,10; 102,18; Is. 4,5; 48,7; Ezek. 21,30). It was God's word that initiated (Gen. 1; Jn. 1,1-3) and it is still His word that upholds (Heb. 1,3). Furthermore 2 Pet. 3,5-7 explicitly says that the word that maintains the heavens and the earth today is the same word as that which created in the beginning.

GEB

Second Reply to Mr. Barnes (Edited)

Though Mr. Barnes would prefer not to use the word 'upward' because it implies a scientifically unjustified value judgment, he clearly implies the concept of 'upward' in the expression 'all-embracing evolution', which must encompass the whole progression from atomic components to man. In every normal sense of the word this progression must be thought of as 'upward' even if the word lacks the degree of objectivity which is supposed to characterise scientific terms. (Many biologists would define an upward evolutionary step as one which results in increasing independence of the environment for the organism concerned. This definition certainly implies more than a subjective value judgment.)

Can we not agree, then, that the concept of 'upward' is valid, even if unscientific? If so, 'descent with modification' must be of two distinct kinds. The differences between one generation and the next must either (1) involve or (2) not involve, an upward step. This distinction (corresponding to micro- and macro-evolution) is clearly made in Anderson and Coffin's book and cannot be ignored. In my last reply I argued that there is no clear way (i.e. by applying an objective test) of identifying a modification of type (2) when it occurs and I pointed out that in view of this fact it is unfair to raise exactly the same difficulty against the creation model.

Neither in his reply, nor in his earlier paper which he has kindly sent me, does Mr. Barnes reply to, or even seem to appreciate this point. All he says is that mechanistic explanations of type (1) modifications are possible - which no one doubts. The point is that in the course of biological 'evolution' thousands of wonderfully ingenious devices have appeared in living forms, but no biological scientific explanations of this undoubted fact are

forthcoming. Similarly, if we compare one generation of cars with later models we may find that the new are unimaginative modifications of the old, or else we may find that new patentable features are embodied. It will be impossible to explain these new features in terms of what was there before.

We can both agree wholeheartedly that Creationism is not scientific. But that does not make the General Theory of evolution any more plausible, for evolution (i.e. macro-evolution, or transformism) is not scientific either. It too rests upon an act of faith. It does not relate to any scientific law - we cannot predict whether the Lingulas and Latimerides of today will give rise to those of tomorrow, or to some other creatures. Karl Popper's well-known test of a scientific theory - that it must be falsifiable - cannot be applied to macro-evolution, a point which Popper himself stresses, and that from no Christian angle!

So far as the Bible is concerned, creation is not an on-going phenomenon. Assuredly the same Hebrew word may be used by King David in Ps.51 as was used by Moses in Gen.1, but the context is very different, and this must not be overlooked. I do not envisage a different source of power for Creation and for maintenance of that Creation, but there is clearly a difference of operation by the same Power. The *production* of the excellent wine at Cana clearly involved a different operation than that which was necessary to *maintain* it as wine while the ruler of the Feast partook thereof! In Genesis (2:1) we are clearly told that Creation was *finished* at the end of the sixth day. Why may we not accept this as true?

Second Reply to Mr. Radcliffe-Smith

I am again grateful to Mr. Radcliffe-Smith for his further reply, because I think this discussion is pin-pointing, if not clarifying, the differences between our two views.

It is obvious that his view leans heavily (as does that of Coffin and Anderson) on the largely unexplained big gaps in the fossil record, to which the term 'macro-evolution' is often applied. It depends, therefore, on the old 'god of the gaps' argument which to me seems illogical and notoriously dangerous.

Further, when he says in his last paragraph that "there is clearly a difference of operation" between the original creation and the maintenance of that creation, he is surely begging the whole question. I know of no evidence, scientific or biblical, that clearly implies a difference of operation. Gen. 2:1, which he quotes, as I understand it, is saying merely that the work

recorded in Gen. 1 was completed (hence the sabbath rest), and does not imply that no further creation would take place. Jn. 2 is irrelevant because the narrative makes it plain that the miracle of conversion of the water into wine was an irregularity in nature, whereas I cannot see that Gen. 1 implies that the events there described are irregularities.

I fear, therefore, that the question at the end of the review which prompted this dialogue has not really been answered.

GEB

If any reader can make pertinent additions to this discussion, or explain why Christians differ so greatly in their views, we shall gladly continue the discussion.-Ed.

REVIEWS

Robert Jastrow, *Until the Sun Dies*, Souvenir Press, 1978, 172pp., £3.95.

Few writers are as gifted as Professor Robert Jastrow, the founder and director of NASA's Goddard Institute for Space Studies. The clarity and simplicity with which he explains scientific principles are surely unrivalled and every sentence is a pleasure to read.

The book starts with the beginning of the universe, and the origin of the sun and earth. How remarkable it is, says Jastrow, "that in science, as in the Bible, the World begins with an act of creation. That view has not always been held by scientists ... [it] comes as a shock." After a century of self-satisfied Darwinism, the scientist must now say; "You may go this far, and no further; you cannot penetrate the mystery of existence." The Universe is "a grand effect without a known cause".

The story continues with the formation of galaxies, of stars, of the sun, and of planet Earth and of the advent of life. Despite years of searching the gap between nonlife and life remains. "Perhaps the appearance of life on the earth is a miracle. Scientists are reluctant to accept that view, but their choices are limited; *either* life was created on the earth by the will of a being outside the grasp of our scientific understanding, *or* it evolved on our planet spontaneously, through chemical reactions occurring in nonliving matter lying on the surface of the planet". Both views are acts of faith - both put "the question of the origin of life beyond the reach of scientific inquiry" - at least as we know science today.

The book follows with a popular account of the evolutionary development of life with the usual type of illustrations. Again, the writing is charming, but here many will think that the factual basis is slim. Turning to other planets the author is convinced that there is a lowly form of life on Mars. Had he written a little later (the book was published in 1977) he would probably have revised his views. (See this JOURNAL 105, 16).

Finally we are told of days to come when, if scientific laws continue as they are, the sun will become a red giant enveloping

and utterly destroying the earth, while the universe will go on expanding for ever and ever without end, because gravity will prove insufficient to bring expansion to a halt.

REDC

I. Howard Marshall, *The Gospel of Luke. A Commentary on the Greek Text*, Paternoster, Exeter, 1978, 928pp., PB, £13.00. (The New International Greek Testament Commentary).

The publishers are to be warmly congratulated on their vision and enterprise in sponsoring the first volume in a projected series of major commentaries on the Greek text of the books of the New Testament, under the General Editorship of Dr. Howard Marshall and Dr. Ward Gasque. Dr. Marshall himself has undertaken this monumental prototype volume on the longest of the New Testament writings.

Lucan studies are a current storm-centre of scholarly debate, and a vast literature of articles and monographs has proliferated in recent years. Yet no English commentary on the Greek text of Luke has appeared for over forty years. There is no scholar better qualified than Dr. Marshall to mediate and assess the modern developments for the student and preacher. He takes full account of tradition criticism and redaction criticism, and emphasises the theological character of Luke's writing. But his work is not over-technical: it is meant for the serious student, but it recognises his likely limitations, and linguistic and exegetical points are fully explained. This feature does not detract from the high importance of the book as a contribution to scholarship.

The author dispenses with an extended critical introduction, the essence of which he has already provided in his book *Luke, Historian and Theologian* (Paternoster, Exeter, 1970). Indeed, it is somewhat arbitrary to think of introducing the Third Gospel in isolation from the additional problems of Acts, which lie beyond his present frame of reference. The earlier book offered the format for considering the implications of the accepted common authorship of the two works.

The Third Gospel stands in a different kind of intimate relationship with the other Synoptics. The question continually arises how Luke uses his source material, how far he is creative, how far he edits older traditions in the light of his theological purpose, how far he relies on independent sources for his unique "L" passages and variants. Dr. Marshall discusses the many conflicting views very fully, and repeatedly argues cautiously that Luke's editing is controlled by a basic faithfulness to sources. It will not do to follow extremes, whether that which

refuses to recognise the literary character of the Gospels or that which sees little history in them ascribable to Jesus himself: "Despite Lewis Carroll, it is impossible to have the Cheshire cat's grin without the Cheshire cat as its bearer." (p.51). In such a problematic area as the Nativity narratives the author insists that no solution is without difficulty, and that the problems will probably not be solved without fresh evidence.

In fact the reader gains the impression of a recurring pattern: Dr. Marshall repeatedly stands on the more conservative, or the more cautiously moderating, side of the points at issue. The phenomenon merits some comment. Modern scholars have taken so many divergent, and often perhaps over-ingenious, redactional views that a cautious commentator who thinks that Luke treated his traditions seriously finds himself almost predictably in a defensive position at each point of the engagement. The commentator is committed by the nature of his task to assess the details item by item. Yet the wealth of detailed scholarship meshes with an overall view of the Gospel. Here however Dr. Marshall is perhaps less than specific: it may just be, as he recognises (p.15), that the time is not yet ripe to assess the modern revolution in Lucan studies.

What, for instance, is his opinion of the date of the Third Gospel? He writes, "On the whole a date not far off 70 appears to satisfy all requirements" (p.35). But which side of 70? It may be very hard to answer that question. The arguments point not so much to an approximation as to a choice between alternatives, though the factors involved are exceedingly complex and elusive. The acceptance of traditional authorship might be combined with either answer, but the church situation in which the Gospel was edited, if editing be the appropriate word, is likely to have changed profoundly after 70, though our means of tracing the processes are fragmentary. If in fact the Gospel was written before 70, there may be implications for the availability and treatment of sources; if after, it may still be argued that it is difficult to cite unambiguous evidence for such a date for the redaction. Dr. Marshall raises interesting points bearing on the topic: Luke removes the apocalyptic language which in Mark associates the Fall of Jerusalem with the End: "He will have clarified the allusion to the events of AD 66-70 in the light of history" (p.770; cf.p.754). But is that allusion applied to the crisis as impending or already past? If we date a reference to Hitler near 1939, that is certainly a central date for a *floruit*, but also a turning-point. It makes a difference whether the background has the flavour of earlier expansionism or of World War.

The whole question is, I think, more open and more important than is sometimes recognised. Many scholars presuppose editing in a later situation on the strength of passages like Luke 21: 20-24. This kind of assumption must be rigorously tested, and fuller

independent historical study of the implications of 70 is desirable on many counts. Dr. Marshall discusses Luke 21 with characteristic thoroughness, but he does not tell us some of the things we should like to know. What view does he take of C.S.C. Williams's development of the "Proto-Luke" hypothesis, for instance, as a device for reconciling a conventionally later date of the final form of Luke with an earlier, pre-70 date of Acts?

If in fact Luke is so faithful to his sources, the place of redaction is not necessarily so clear or so large. An editor (or an evangelist) is known by what he preserves, and how, no less than by what he changes. The presence of Lucan motifs, as in the Emmaus story (p.890), is no proof of Lucan invention: the same might have been argued of other passages, were not their source extant in Mark. To categorise the form of the Emmaus narrative as "legend" is no proof of its fictional character, "since a form-critical verdict of this kind cannot affect historicity" (p.891).

This is altogether a masterly study, a full and fair compendium of the state of Lucan scholarship, and a detailed presentation of the elements of a strong case for the tradition, urged with a restraint proper to the current state of play. It sets a formidable standard for the series it introduces.

The book is splendidly produced, with notably few misprints. There is an ample general bibliography, supplemented by specialised bibliographies heading the individual sections, and indexes of authors, of subjects, and of Greek words.

COLIN J. HEMER

Stephen S. Smalley, *John, Evangelist and Interpreter*, Paternoster Press, 1976, 285pp., £7.

At the beginning of this century opinion on the authority and authorship of *John* ranged from the traditional conservative views of men like B.F. Westcott who maintained a mainly apostolic provenance and held that a process of elimination among the Twelve pointed to John son of Zebedee as the most likely author to the radicalism of scholars like Alfred Loisy who regarded the fourth gospel as an unhistorical theological reconstruction of synoptic material. The choice lay between the apostolic and historical on the one hand and the post-historical and theological on the other.

More recent study has brought second thoughts on these simplistic conclusions. Forty years ago, P. Gardner-Smith postulated a gospel source independent of, and parallel to, the

synoptic sources. More recently this idea has been developed by J.A.T. Robinson who, like Gardner-Smith, had taught Smalley at Cambridge. It is not only such insights of literary criticism which have led to new attitudes; much fresh historical evidence has come to light, not least the finds at Qumran and Nag-Hammadi.

In his first chapter, on 'The New Look', Canon Smalley summarizes and presents the current position in considerable detail and with masterly grasp. He makes use of synoptic comparisons, manuscript evidence, background research and topographical detail as well as the actual gospel tradition. He raises many valuable points; for example, a Jerusalem site excavated since 1930 fits the details of the Bethesda pool incident (5: 2) better than earlier identifications. Probably a temple of Aesculapius, it may have celebrated the visit of the Great Healer by the building of a Christian Church over it. If so, the five porticoes may be actual history, and not theological symbolism. "This", says Smalley, "makes considerably more sense of the situation... Here is impressive support for the historicity of the tradition in Jn.5" (p.36). It adds force to the argument for a pre-AD 70 date.

In Chapter II, 'Who was John?' Smalley studies the problems of authorship and date. Possible authors are John the son of Zebedee; or another Beloved disciple, (Mark?, Lazarus?) while the church at Ephesus (probably owing its origin to the apostle John) may have been responsible for the final redaction. But no final verdict seems possible.

None of this gives the final answer to the question,

who was John? All we have suggested so far is that the beloved disciple was very probably John the apostle, and that he appears as an early eyewitness on whose testimony the Johannine tradition rests. But evidently he was not the final redactor of that tradition. (p.81).

As to its date, on manuscript and literary evidence it seems safe to fix approximately 150 AD as the latest possible. Various considerations point to c.85 AD for the Gospel in its final form but we are reminded that there are scholars of high standing who take the book to be the work of an eyewitness of events recorded not later than 70 AD. Smalley, however, thinks that the composition of the Gospel "is a more complex issue than this view allows." The complexities to which he alludes and the evidence are thoroughly sifted.

Johnannine scholarship has long wrestled with the problem of whether John is a theologian writing in a historical (or quasi-historical) framework, or a historian with a theological stance. Smalley (Chaps. V and VI) sees truth on both sides of this issue.

He sees the Jesus of the Fourth Gospel to be truly divine and coming from God to reveal God's glory. But Jesus was also truly human and John's narrative is a historically accurate account of the Incarnation. John is no Docetist, nor is he writing fiction, even historical fiction.

What impression will this book leave on the mind of the reader? Undoubtedly he will be impressed by the thoroughness of the scholarship. Nothing is taken for granted, each conclusion reached is preceded by careful discussion of all the relevant facts and opinions, however 'heretical' these may sometimes seem. Arguments used are marshalled with clarity and conclusions when reached are free from unseemly dogmatism. The language is straightforward and, in as much as its theme allows, non-technical. Sectional headings provide a useful framework. In brief this is a very readable survey of the field, especially suited for student use. It will prove invaluable in academic and bible colleges. Above all, the monograph has a devotional quality that cannot but bring spiritual blessing to him who seeks better acquaintanceship not only with the Fourth Gospel but also with Him to whom it bears witness.

Like all the productions of the Paternoster Press, this volume is finely produced and a pleasure to handle. A very few misprints have been noticed. On p.30 'trial' should be 'trail'; on p.203 the uplifted index '79' should be '70'; 'Kasemann *need...*' should read 'Kasemann *needs*' on p.251.

LAWRENCE E. PORTER

Peter Donovan, *Interpreting Religious Experience*, Sheldon Press, 1979, 120pp., £1.95p.

The rise of the charismatic movement has re-opened the controversy over the value and validity of various types of religious experience. The secular philosopher has always treated the argument from religious experience with a great deal of scepticism and so Dr. Donovan's book, which gives a critical appraisal of the arguments for and against using religious experience to prove the reality of the beliefs people hold, is most welcome. The book covers a great deal of ground and is cogently and concisely argued which makes a short review very inadequate.

Donovan opens his study with an examination of the various types of religious experience which he lists as mystical and paranormal, (in which he includes apparitions, out-of-the-body experiences and supposed spirit communications) as well as charismatic and regenerative experiences such as conversion and the 'divine call'. The questions raised by such phenomena include

whether all the experiences in different religions are species of a single experience or are themselves expressions of different realities and whether it is possible to distinguish between 'genuine' experiences and those 'induced' by drugs and also whether religious experience could be a source of knowledge about transcendent realities.

It is the last question that is Donovan's main concern. Fundamental to understanding religious experience is the question of interpretation. He points out that all interpretation is rule-governed, for instance we interpret a yawn as boredom by interpreting body language according to agreed rules. It is often thought that experiences and their interpretation are separable. Donovan questions this by showing that the use of language itself alone makes certain experiences possible and therefore argues that it might be the case that only those familiar with religious language and world-views can have the requisite religious experiences. He carefully distinguishes other confusions about interpretation. For instance it is conceivable that there is *one* basic experience interpreted differently according to the particular culture or time but it is equally possible that the similarities between experiences are superficial and deceptive. He is sceptical about the possibility of reaching a neutral, uninterpreted experience, likening it to the quest for a 'pure hole'. Neither is he happy with the sceptic who maintains that all religious emotions are misinterpreted aesthetic ones, because it is always possible that the believer is able to make valid distinctions that the unbeliever is unable to make. For those who would argue that it is logically impossible to express the inexpressible he says that words are not identical to experience and therefore they cannot, for instance, replace the taste of coffee but it is possible to speak about *inexpressible* joy and *unutterable* pain, although our description may not get us very far.

He has a chapter on the use of analogy in understanding religious experience. Religious experience has been likened to musical appreciation. The person with no religious experience is likened to a tone-deaf person. But does musical experience claim to point beyond itself? The answer must be that in certain respects it does because it can tell us a great deal about the composer. Perhaps there is an analogy with sense perception, the difference being that sense perception is based on the common possession of sense organs which provide checks on each other. But, as Broad pointed out, it would still be possible for a sighted person (analogous to the believer) to give additional information to a blind person about matters which he could then test and verify. H.P. Owen sees a closer analogy than these in that between religious experience and intuition. He sees a parallel between God's revelation of Himself to men and our knowledge of other persons. There seems, however, to be an insurmountable

problem here. Although it is possible to check the rightness of a feeling by an objective observation it is impossible to check the correctness, of say, a watch by an intuitive feeling.

There is an interesting chapter devoted to a critique of recent work in this field initiated by Wisdom's parable of the gardener and progressing through Wittgenstein's 'seeing-as' to Hick's view of religious experience as 'experiencing-as'. Donovan, I feel, is not completely fair to Wisdom, but his critique of Hick gets to the heart of the matter.

The final chapter is devoted to a consideration of naturalistic explanations of religious experience. The author shows that it just does not follow that because great saints are in the minority and are sometimes eccentric that religious experience must be either an aberration or an obsession. Perhaps all geniuses seem unbalanced because their extraordinary discoveries take them beyond the usual assumptions of their contemporaries. He rightly points out that we can only totally rule out a theistic interpretation of purported religious experience if we can conclusively disprove God's existence. Nonetheless to assert that all events are examples of God's activity leads us into a quandary, because unless there are other activities we would be unable to pick out those that are specifically examples of divine working from any others. It will not do either to make all significant religious experiences miracles because we then have difficulty in distinguishing true from false miracle claims. Donovan finds a solution to the dilemma in the uncertainty principle which allows for a large area of divine activity to fall outside the scope of scientific explanation. Many will no doubt find this remedy somewhat questionable. For Donovan religion and science are seen as complementary. Science can give explanations of each process during life, but religion sees life as a part of a pattern linking one's experience with similar experiences of other people giving an all-embracing world-view. The two last sentences of the book are worth quoting; "So people who go on making religious interpretations, even when they are quite aware of the natural factors involved, are not being inconsistent or irresponsible. They see it as a way of trying to be true to their own experience, and to what they know to be the experiences of the human race".

This is not a book for those wanting easy answers. Indeed many readers might feel that no answers are forthcoming. This is no fault of the book which is intended as a philosophical analysis intended to clarify the issues involved. One is reminded of Wittgenstein's aphorism that the purpose of philosophy is "to show the fly the way out of the bottle" and that it, in effect, "leaves everything as it is". As an introductory philosophical study of

the subject this book can hardly be bettered and is to be highly recommended.

R.S. LUHMAN

Clifford A. Wilson, *Rocks, Relics and Biblical Reliability*, Zondervan (available from Paternoster Press, Exeter) 1977, 141pp., £2.40.

No serious Bible student can afford to ignore the results of the archaeology of Bible lands. This book, written by a practising archaeologist who has supervised excavations and worked alongside G. Ernest Wright and Nelson Glueck, provides a useful introduction. Anyone wanting an exhaustive survey or a detailed examination of discovered artifacts will find it a disappointment. The purpose of the book is far more limited. As the title suggests the author is more concerned with the relevance of archaeology to the question of Biblical reliability. Although he is at pains to deny that archaeology 'proves' the Bible, he nevertheless believes that there are no areas where it can be said that the Bible has been conclusively shown to be erroneous. On the contrary time and again archaeology has demonstrated the accuracy of the Bible where it refers to historical events.

After briefly describing what is involved in an archaeological dig he outlines the present state of our knowledge concerning the early chapters of Genesis arguing that the Babylonian and Sumerian accounts of the creation and flood do not antedate Genesis. He briefly touches on P.J. Wiseman's 'colophon' theory of the composition of Genesis 1 - 11 (which has been recently revised and reissued see this JOURNAL 104, 176, 197).

Turning to the patriarchal narratives he outlines the excavations at Ur undertaken by Woolley which revealed the level of civilisation reached before the time of Abraham. This included two-storied houses with plumbing and the existence of schools in which were taught, among other things, cube roots and a crude Pythagorean theorem. Hittite documents provide a confirmation of the existence of laws relating to property and secondary wives and help us to understand Abraham's purchase of the cave at Machpelah and his marriage to Hagar. Wilson believes that archaeology provides clues to enable us to reconstruct the destruction of Sodom which he claims was caused by earthquake activity hurling bituminous pitch onto the cities. Discovered inscriptions throw light on the identity of teraphim which were clay gods used as title deeds to property (Gen. 31) as well as the significance of Abraham's servants who formed a type of private army thus explaining how Abraham was able to rescue Lot. Discoveries, especially those recently made at Tell Mardikh (Ebla)

indicate the use of names like Abraham, Esau, Saul and David and the existence of the towns Hazor, Lachish and Megiddo in the second millenium BC undermining the view that the patriarchal narratives were pious legends. The author, heavily relying on the work of J. Vergote, shows that the Joseph narratives contain much local colour suggesting a source close to the events.

On the section dealing with Moses he reviews the work of Mendenhall on the Hittite Suzerainty Treaty and compares these with the Mosaic Covenant and Law. Wilson gives evidence for the occupation of Canaan under Joshua and for the abominable practices of the Canaanites which make their proposed extermination by the Israelites more understandable. He gives a brief description of the excavations at Gibeah by Albright and of temples and stables associated with Solomon. He is, however, more concerned with detailed confirmations of Biblical statements and of the role of archaeology in making ambiguous Bible expressions intelligible. He notes that the apparent contradiction between 1 Sam. 31:10 and 1 Chron. 10:10 is solved by the discovery that at Bethshan both the Canaanite goddess, Ashtarosh and the Philistine god, Dagon, were worshipped. David's capture of Jerusalem *via* the Siloam tunnel has been confirmed by Kathleen Kenyon's excavations. He notes that the Bible is accurate in its knowledge of the Assyrian kings and shows how the existence of Sargon and Belshazzar have been confirmed.

The weakest part of the book are the sections dealing, quite uncritically with the "canopy" theory, and with the Dead Sea Scrolls and the New Testament. The treatment of the latter is extremely brief. Wilson contents himself with observations on the relevance of the scrolls for the understanding of the text and for the dating of the Old Testament. There is a short summary of the evidence against seeing Jesus as the Teacher of Righteousness. He also shows that the occurrence of themes like 'light and darkness', 'brotherly love' and 'fountains of living water' gives a possible Jewish rather than Hellenistic background to the Fourth Gospel. He refers to Ramsay's work on Luke-Acts which demonstrates Luke's obvious knowledge of local customs and titles. Similarly the author points out how discovered papyri help to elucidate New Testament words and expressions as well as confirming that Hebrew as well as Aramaic was still in use in first century Palestine.

The book contains twenty-one black and white illustrations, is well documented and has a short annotated bibliography. As a short introduction to the subject it is to be recommended but for the serious student there are many better books available.

R.S. LUHMAN

ALSO RECEIVED

Norman Autton, *Peace at the Last; Talks with the Dying*, Foreword by the Archbishop of Canterbury, SPCK, 1978, PB, 145pp., £2.75.

William Barclay, *Flesh and Spirit*, 1978, 127pp., PB, £1.25 (Reprint of SCM edition, 1962). (A scholarly discussion of the meanings of the Greek words used in Gal. 5:19-23. However one looks in vain for comment on what Paul means when he says that those who practice the works of the flesh shall not inherit the Kingdom of God.) *The All-Sufficient Christ* 1978 (repr. of 1964 ed. - a study of Colossians) PB, 142pp., £1.25. *Communicating the Gospel: the Laird Lectures* 1978 (repr. of 1968 ed.) PB, 106pp., £1.25. *Turning to God: a Study of Conversion in the Book of Acts and Today*, 1978 (repr. of 1963 ed.), PB, 126pp., £1.25. *Daily Study Bible: Index Volume*, ed. by C.L. Rawlins, 1978, 213pp., £2.45 St. Andrew Press, Edinburgh.

The Book of Common Order (1979), The Committee on Public Worship and Aids to Devotion of the Church of Scotland, 182pp., St. Andrew Press, Edinburgh, £3.50.

Beryl Bye, *What about Life Style?* Paternoster Press, Exeter, 1977, PB, 36pp., £0.45.

G.L. Carey, *God Incarnate*, IVP, 1977, PB, 63pp., £0.60 (An effective and scholarly rebuttal of *The myth of God incarnate*.)

M.A. Chignell, *To See a World*, St. Andrew Press, Edinburgh, 1978, PB, 162pp., £2.25. (An educationalist challenges the institutional churches to rethink some of their attitudes to moral issues and dialogue with other ideologies.)

Ian Cowie, *Growing, Knowing Jesus*, 1978, St. Andrew Press, Edinburgh, 154pp., £1.70. (A devotional study for daily reading.)

Timothy Dudley-Smith, *Someone who Beckons: daily Readings and Prayers* 1978, IVP, PB, 135pp., £1.75.

P.T. Forsyth, *God the Holy Father* 1978 (repr. of 1897 and 1957 eds.) St. Andrew Press, Edinburgh, 148pp., £2.95.

O. Hallesby, *Under His Wings*, St. Andrew Press, Edinburgh, 1978, PB, 177pp., £1.45. (A devotional and helpful book.)

P. Lee, G. Scharf and R. Willcox, *Food for Life*, IVP 1977, PB, 280pp., £1.50. (A useful guide to personal Bible study.)

James Martin, *A Plain Man in the Holy Land*, St. Andrew Press, Edinburgh, 1978, 100pp., with 21 plates, PB, £1.50. (The author who has led many groups on pilgrimage to the Holy Land writes this book in the form of a day by day log of such a pilgrimage. The book makes easy reading and is replete with biblical references. It deserves a wide circulation.)

Dennis Osborne, *Way Out: some Problems of Science and Faith*, IVP, 1977, PB, 99pp., £1.00. (The author, trained as an astronomer, answers some of the common arguments which non-Christians raise. He makes effective use of parables. The book is very simply written and will appeal to the young, but the ground covered is very limited.)

John Searle, *Kill or Care?* Paternoster Press, Exeter, 1977, PB, 35pp., £0.45. (A discussion of euthanasia from a Christian point of view.)

J.B. Shepherd, *Diary of Daily Prayer*, St. Andrew Press, Edinburgh, 1978, PB, 67pp., £0.95.

Patrick Sookdeo, *Asians in Britain* Paternoster Press, Exeter, 1977, PB, 64pp., £0.80. (A valuable introduction to the background, culture and beliefs of Asian immigrants.)

Psalms Twenty-Three: An Anthology, Versions Collected and Annotated by K.H. Strange and R.G.E. Sandbach, St. Andrew Press, Edinburgh, 118pp., £2.45. [A Collection of 87 versions of this 'universal favourite' of all psalms. Short notes and biographies of authors are included. Revised and extended from 1969 and 1970 editions.]

Rhena Taylor, *Rough Edges: Christians abroad in today's World*, IVP Patmos Press, 1978, PB, 165pp., £1.25. (Short stories in which both the rough edges of human nature and God's love are manifested.)

E.S. Towill, *The Saints of Scotland*, St. Andrew Press, Edinburgh, 1978, 148pp., PB, £1.95. (Mini-biographies of 45 better known saints and notes on others.)

Ronald S. Wallace, *The Lord is King: the Message of Daniel*, IVP, 1979, 200pp., PB, £2.65. A delightfully written and spiritually most helpful commentary on Daniel. The traditional dating of the book is accepted: it is argued that its message would hardly have been appropriate in Maccabean days.

Derek Williams, *About People, What the Bible Says*, IVP, 1977, 151pp., £1.30.



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