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EDITORIAL

Binding. We regret the poor binding of some of the copies of Vol.107 No.3. The printers have supplied us with some replacement copies and these are available on request at the London office.

News & Views

GENESIS - EXODUS

It is becoming quite fashionable now to write on the early parts of the Bible. Results are often unconventional, but perhaps that is because much of what is conventional has been said many times already. For all that, if treated eclectically, there is often much that is helpful in the new offerings.

The Furnival Press (61 Lilford Road, London S.E.5) has published two books by the late William Todd (*New Light on Genesis*, 1978, £4.50 and *New Light on Exodus*, 1980, £4.50) both of which make fascinating reading. Todd, who was a geographer interested in water supplies knew the Middle East well. The particular slant which colours his interpretations is the scarcity of water in Bible lands. He interprets Genesis chaps. 1 to 3, in terms of the annual flooding on the upper Euphrates while Joseph, he says, had learned in his prison days of a plan by the Pharaoh at Thebes to drain a large reservoir into the Nile for seven years and then recharge it over the following seven years to make the northern Hyksos kingdom short of water. (Ingenious! But why did the land of Canaan suffer from the famine too, though not dependent upon the Nile?).

Adam was introduced into the Garden of Eden, near the modern Hit, but after partaking of the tree, a vine whose fruit had fermented (!) he became lazy and had to look for food elsewhere. The giants of Gen 6 were giants of hydraulic engineering (!) while Noah, of course, was well able to predict that a flood would follow when regular repair of the dykes was not maintained: his ark, 100 foot long, was made of reeds.

More helpfully, we are reminded that *shannah*, translated *year*, means change. No one has yet discovered how time was measured in the days of the earliest patriarchs where (in the Hebrew version) the average age is 857. In the next list it is 333. But once in Canaan it reduces to 167. In that area there

are two changes every year, - marking the onset of the wet and dry seasons - Spring and Autumn are not mentioned in the Bible - so that the ages given are all double what we should expect. Thus Isaac married at 20 and Moses was not 80 but 40 at the time of the Exodus. In Egypt the year was of 365 days: the distinction between the two kinds of year is said to be implied in Gen 41:1 "two full years". Todd thinks (but admits that Hebrew grammar does not prove) that *ha-elohim* refers to heathen gods, but *elohim* to the true God. Abraham hates the customs of those among whom he dwells and whose gods tell him to sacrifice Isaac. To show the heathen that human sacrifice is unnecessary he takes his son to the mountain in full confidence that God will intervene to prove to all that animal sacrifice suffices. Todd accepts P.J. Wiseman's view that what is written in Genesis was originally on tablets. Since tablets cannot be bound like pages in a book, it was not difficult for them to become disarranged: so in a few cases re-arrangement is necessary to restore intelligibility.

At the time of the birth of Moses, Pharaoh had had evil gods put into the tents of Hebrew women with child. The midwives were afraid of them, but made boxes or houses for them so that they could not see to work their spells and the midwives then felt confident. The mother of Moses hid him in an Egyptian sacred shrine-box, made waterproof, knowing that someone was sure to rescue the holy object from the water. Moses, reared as an Egyptian, knew little Hebrew and so did not feel eloquent enough to speak to the Hebrews.

Naturalistic explanations for the earlier of the plagues of Egypt follow, in general, what others have suggested before, some helpful points being added: e.g. the death of the fish was not due, Todd thinks, to the 'blood', or dark earth washed down from Abyssinia but to the fact that the Egyptians, in order to enrich their land, did not allow the water to reach the sea. The sea water therefore encroached into the estuaries killing the fresh water fish. The last plague, that of the death of the firstborn, is dealt with in much too facile a manner - it was the result of a few months undernourishment!

In common with many others Todd thinks that the Exodus started along the strip of sand which separates the Mediterranean Sea from Lake Bardawil. To make the pillar of fire and cloud Moses burnt torches - a favourite theory! (C.S. Jarvis, in *Yesterday and Today in Sinai*, 1931, says that the description is that of a well-known if rare type of storm in that area - a much more convincing explanation!).

At Marah the water is bitter. Rain falling on the high central plateau of Sinai comes down the wadis (normally dry water courses) and fills pools below sea level where the ground is

saline. Moses climbs up the wadi to where the soil is not salty, blocks the stream with a tree, plugs it with clay, and the pool of water which forms at this level is fresh. In such localities water sometimes descends from the hills underground and may come very close to the surface. Striking the rock in the right place will then provide a gush of fresh water. This "can and does occur today in a suitable locality" (Jarvis also, says he has seen this happen). Many of the descriptions given must, Todd thinks, have been written at the time by those who did not at all understand how the events came about. The accounts are wonderfully accurate: the stories of the manna and of the quails could have been written today. Excavations reveal a dense 'forest' of tamarisk trees (the source of manna) which once flourished near the coast is N. Sinai.

Mount Sinai, or Horeb, is identified with Jebel el Hallel, the eastern of the two 3000 ft hills in Northern Sinai: it happened that on one occasion, it was enveloped in a storm. This is only three days journey from Kadesh but it took Moses eleven days because he lost his way (!)

Though we may reject much of the speculative aspects of these books, the impression they give of the sheer bravery and trust in God shown in particular by Abraham and Moses, is most inspiring. All with whom these men had contact were idolators - Abraham's family; even Aaron to whom God had spoken, apparently wished to worship both God *and* Egyptian gods. Both men were taught to worship idols when young, yet after they came to know God, the I AM, they never once turned back but fought idolatory to the end. To them, under God, our debt is immeasurable.

Another interesting and very scholarly book is U. Cassuto's *A Commentary on the Book of Genesis*, Pt. 1 *Adam to Noah* (translated from Hebrew), Jerusalem, 1978. Until the time of his death Cassuto was the Professor of Bible at the Hebrew University. With regard to Genesis 1 he comments on the remarkable numerical structure which binds the creation story together. Thus all the main words which characterise the chapter occur seven times or a multiple of seven times (Elohim, 35; heavens, 21; earth, 21, let there be, 7, water, 7 it was good/very good, 7 etc. etc.) This fact is quite incompatible, says Cassuto, with the view that the chapter "is not a unity but was formed by the fusion of two different accounts, or as a result of the adaptation and elaboration of a shorter earlier version." *Te-hom*, the deep, is understood in Jewish writings to be the primeval world ocean, cf. Ps 104:6 "Thou didst cover it with the deep as with a garment; the waters stood above the mountains". (In remarkable agreement with geophysics!) According to the Talmud (*Hagi'ga* 12a) *ruah*, translated spirit or wind, denotes an actual wind. The idea that the spirit or wind brooded over the waters like a bird over the world-egg, which was a pagan notion, is unwarranted. The

word used never means 'brooding' in Hebrew (p.25). This commentary by a respected Jewish scholar, is one which Christians who write on this subject cannot afford to neglect.

Another interesting and scholarly book (based on a Ph.D. thesis) is *The Way of the Wilderness* (CUP, 1979) by G.I. Davies of Nottingham University. Serious attempts to identify the route of the Israelites as given in Numbers 33 and allied passages are almost confined to modern times. Surviving names of places afford practically no help. "A century and more has been unable to discover more than a handful of plausible equivalents for names in the itineraries... where possible survivals of the names do occur there is often more than one such possibility." (p.62)

It is strange that earlier Jews and Christians for the most part took no interest whatever in asking such questions as Where did the crossing of the Red (Reed?) Sea take place? or where was Horeb? or Kadesh? According to modern writers the crossing took place in the far North near the Mediterranean Sea, at one of the Suez lakes, at the Gulf of Suez or, as at least one scholar still maintains, at the Gulf of Akaba! Davies, who is sceptical about the Reed Sea theory, places it at the Gulf of Suez and puts Mount Sinai in southern Sinai but this seems an impossible theory. To take one point only, if the waters were separated to the north and south, it is difficult to see how an *east* wind would have brought them back again.

Kadesh was usually taken as Elath at the north of the Gulf of Akaba but another long lasting tradition identified it with Petra: today it is believed to be in the southern Negev. But where is Mount Sinai? It seems that two mountains are in view (so Rowley). The Mount of God (or of the gods?) where Moses met Aaron before the Exodus was apparently quite near Egypt probably near the northern coast of Sinai. But for the Mount at which the Law was given there are many possibilities which are here discussed in detail. It is difficult to know which is correct. Is it Jebel Musa in Southern Sinai, or a mountain near by? If so, why does Paul say it is in Arabia? None of the mountains in Sinai were volcanic as recently as a few thousand years ago and "it is hard to escape the conclusion that verses like Ex.19: 18 and Dt. 4:11 suggest a volcanic eruption" (p.65). Volcanos have been active in the Northern Hejaz in historic times but every suggestion is beset with difficulty. One can only wonder if those theologians who are satisfied with the storm on a non-volcanic mountain have ever read a book on volcanology. And what about Elijah's visit in later years? It is interesting to learn that "No other settled people in the Levant, so far as we know, spoke of divine intervention in these (i.e. volcanic) terms: storm and earthquake were the normal evidence of a god's arrival" (p.65).

It seems that the only *facts* or possibly discoverable facts we have to go on are (1) identification of places where quail seasonally descend for rest on their migrations (curiously omitted by Davies); (2) that it is 11 days journey from Horeb=Mount Sinai to Kadesh, Deut 1:2. It would not be impossible, one would think, to settle much of the dispute by a geological expedition mounted to discover which of the possible volcanos was active about 3500 years ago: the dating of the lava or of wood from burnt trees should not be difficult. This would provide fact (3) and might also settle other questions - e.g. the early or late date of the Exodus. (4) Location of fossil tamarisk trees in great abundance which might have provided enough manna to feed the Israelites.

[See also Millard and Wiseman (eds.) *Essays on the Patriarchal Narratives*, reviewed elsewhere by Dr. R.P. Gordon].

JAKI ON THE UNIVERSE

Professor Stanley Jaki, we learn, was persuaded to write his latest book *Cosmos and Creator* (Scottish Acad. Press, PB, 168pp., 1981, £6.75) by his friend Dr. T.F. Torrance of Edinburgh. Jaki's earlier books on religion and science are large, extremely scholarly but rather difficult to read (see this JOURNAL 102 109; 106; 4.) So what about a smaller book for those whose time for serious reading is limited? Well. Here it is. But in fairness Jaki says that, whatever "the prevailing norms of popularisation" he will not dispose of "a modest measure of references and documentation" and that he must pursue his aim "with that seriousness which is not destined to be ever popular."

With high hopes one starts to read, only to realise very quickly that it will be heavy going to the end. Trained as a Benedictine priest the excellent material with which the book is so full is ever hidden under cloak of obscure words (marked 'obsolete' or 'rare' in dictionaries) while the factual basis of argument is often mentioned as if it were a mere aside, a flood of rhetoric taking the stage. A "seriousness which is not destined to be ever popular" seems to be interpreted, by Professor Jaki, as an excuse for not writing plain English. Who would talk of the *nominalism* of the sentiments of a hymn, of the *specificity* of his shoes, (that word *specificity*, as applied to the universe is used over and over again) or ask, in the course of a discussion whether his friend was seeking "subconsciously to eliminate the vista of contingency" (p.128)? Why use the rare word *highermost* (for higher), *wonderment* for wonder (we are told that a book is "uninviting of any wonderment"!) or leave the reader to puzzle about the significance of a double negative ("... denied that it was not necessary to assume a necessary causal connection ..." p.80). All this is said in sorrow, not in anger, for Jaki's

insights into science, philosophy and (despite the RC stance here more prominent than in former books) even theology is profound and he has much to offer. Faced with the MS of this book, could not the publisher have found someone to rewrite it in plain English?

The book starts with a long account of how scientists, in the 30s, found the idea of an expanding universe most embarrassing. It implied a beginning which drew attention to the limitations of science: a subject which scientists liked to keep out of focus. E.T. Whittaker (1942), whose views were endorsed by Pope Pius XII, drew attention to the apparent confirmation which science was giving to the Christian doctrine of creation. But the expanding universe theory did not in fact make the date of creation calculable. Creation might have taken place long before expansion started: yet it hinted at creation.

In the next chapter Jaki tells of the beauty of the world and also of those who, like that Philistine Anatole France, could see nothing in nature to inspire wonder ("Science ... is a dispiriting monotony. All the suns are drops of fire and all the planets drops of mud "says Anatole). But the cosmos is wonderfully beautiful. Euclid has brought rapture into the lives of many; the more we embody science into the things we make (bridges, aeroplanes, cars) the more beautiful they become.

There is beauty in the symmetry of nature, in snow flakes, flowers and many mathematical equations (Dirac etc. quoted). But the greatest wonder of all is the primeval fireball: planted in the universe like the seed we sow in the garden (p.37). At a billion (English) degrees C. it had nine or ten ingredients (perhaps more) and its future development depended most critically upon correct ratios being present, and the right numbers too (too many particles would have slowed expansion). The range of compositions and quantities that *could* have been present was immense.

"The original state of the universe, or the cosmic yolk, must therefore appear as a choice among an immense number of possibilities, a choice aimed at producing a most specific state of affairs, the cosmos in existence" (p.38). "The universe can indeed be said to have had a very narrow escape in order to become what it actually is. Indeed, it may be said that the universe weighs as much as it does, because we humans are here." (p.41) Attempts to avoid this conclusion are considered.

Those who have worked in the field of particle physics have often been motivated by the desire to know why the universe exists but have sometimes overlooked the fact that this is a question with which science cannot deal. Despite such frustration the

passion to know *why* does not leave us: only a Creator and Creation supply an answer.

Chapter 3 deals with the development of the dogma (clearly stated in 2 Macc. 7:28) that God created the universe out of nothing that existed before. This idea, scorned by pagan philosophers, was finally made a part of official Christian doctrine at the Fourth Lateran Council in AD 1214. In part, perhaps, because the rabbis were opposed to Christianity, the Jews in the middle ages tended increasingly to take the reverse view according to which the universe is cyclic - a tendency earlier seen in Philo of Alexandria. A greater threat came from Islam which readily surrendered to the doctrine of the eternity of the world. There was some opposition to this: Al-Ashari in particular took the extreme opposite view according to which the entire cosmos is recreated by Allah at every moment so that there is no causal connection between what happened in the cosmos at one moment and what happens in the new cosmos created a fraction of a second later. Both views made science impossible, as did also the philosophy of the ancient Chinese.

Historically, science only became possible as a by-product of the Christian doctrine of creation. When Oresme, spoke of the heavenly clockwork, created by God, which could maintain its motions as a result of the original creative motions imparted to it, he anticipated Newton's idea of inertial motion. Science, now established, can continue on its own steam without theology, but it could not have started *impromptu*.

Chapter 4 deals with philosophy. It tells the story of how the world's cleverest men leave no stone unturned in their attempt to deny causality. In physics it is denied because otherwise philosophy will not rhyme with the technicalities of physics, or because it is assumed that what cannot be measured does not exist. The hidden reason is that belief in causality leads to belief in God, the Creator.

Often the attempt is made to deny our right to wonder that the universe is here at all (Cartesian rationalism, Wittgenstein). In philosophy it is denied because it is humiliating to concede that man's mind can neither probe to the bottom of things nor account for this sense of wonder. Wittgenstein, we are told, was sometimes seized with an overpowering feeling of wonder that anything exists at all. His *Tractatus* was designed to banish wonder by making the world logical. The biologist (Monod) who claimed that chance and necessity explained all forgot that neither chance nor necessity explained his own insights. Even when wonder is admitted by the front door, it may be pushed out at the back. One philosopher admits that to him the existence of anything is a matter of "the deepest awe", but adds that even

that awe is a matter of personal preference. How is conversation with such a person possible? All the proofs of mathematics are tautologies, as Russell admitted in the end. But if only recognise this sort of proof, how can anything be proved? How can the mind ever find its way to God?

Chapter 5 is headed "A Trap or a Home". Here Jaki sees Darwinism as a belief in the meaningless of existence. "No decade has passed since the publication of the *Origin of Species* without a prominent Darwinism spelling out bluntly the true message of the philosophy of natural selection. That message is the rule of the stronger over the weaker. For Marx it destroyed the only reason he knew for belief in God and it supplied ammunition for the class struggle. Now that Darwinism is less convincing than it was, men turn to extraterrestrial intelligence (ETI) in the hope of rebutting supernatural revelation. In the 18th century life was supposedly everywhere - in the sun, on other planets, and even in every comet. In the 1930s life on earth was supposedly unique. Today the universe is peopled with ETIs. Wishful thinking always!

'ENTROPIES'

Because the entropy (heat energy no longer available for conversion into mechanical work) of the universe is for ever increasing (which is Clausius's formulation of the second law of thermodynamics) it follows that the universe must have started in time: it cannot be infinitely old. This line of reasoning, often used by the founders of the science of heat from about 1850 onwards, seems to have been largely forgotten today. Indeed, it is now common to encounter books on science and religion in which it is not even mentioned! In the thirties the discovery that the universe is expanding led to the same conclusion, for the 'big bang' cannot be extended backwards indefinitely. Both arguments, of course, came in for criticism, the latter notably along the line of the "steady state theory" of Hoyle and others. But what happened to the old entropy argument?

As always happens in such cases, there was a determined and long sustained attempt to find some way of avoiding the conclusion so embarrassing to aggressive agnostics, that physical theory leads to belief in Creation and so to God the Creator. Inevitably the subject became extraordinarily involved and difficult to master. To make matters more difficult still, the word *entropy* took on a host of new meanings, most of them connected with the idea of increasing disorder, for it is the increasing disorder of molecules which makes it harder to extract mechanical work from their individual energies. But sometimes even a learned author will get things the wrong way round! - as did J.D. Unwin in his massive and valuable book, *Sex and Culture* published by the Oxford University Press in 1934.

An easy way out of the 'difficulty' that entropy leads to God is to claim that entropy is a subjective concept and, being subjective, cannot therefore be used to draw conclusions about what is objectively true. The plausibility of this argument arises because the word *entropy* is now so commonly used in other than its original sense.

If you are in charge of a power station it is not at all a matter of subjectivity how much energy you can get from the coal, oil or uranium you burn, but when once the word entropy is used in other ways it is easy enough to understand how a subjective element can enter. If one does not like the lay-out of a new city one might say that its entropy is high, but if one likes it, one might say that the entropy is low! To be more precise, if the urban developer wishes to minimize the chaos on the roads when workers get to their jobs in the mornings, as does A.G. Wilson in his *Entropy in Urban and Regional Modelling*, (Pion Ltd., 1970) he can calculate entropies on this basis, but suppose he is interested in how conducive the environment will be to a desire to worship God on the Lord's day, will his entropy values be the same? Probably not, for the choice of what one chooses to measure in calculations of entropy is highly subjective!

A valuable survey of the field, written by Kenneth Denbigh FRS, has recently appeared ("How subjective is Entropy?" *Chemistry in Britain*, 1981, 17, 4). The paper is too long to summarise but some points made may be mentioned.

(1) There is excellent agreement between entropies of compounds calculated in totally different ways - from the heat measured when they are burned and from spectroscopic data. It is difficult to square this fact with the idea that entropy is subjective!

(2) The mathematical form of the equations used in entropy theory and those in information theory are identical and for this reason von Neumann's suggestion (made to Shannon, the founder of information theory) that the function he used should be named 'entropy' was readily adopted. "In my view von Neumann did science a disservice!" says Denbigh. Although Shannon was clear that what he called information had nothing to do with meaning, confusion can easily arise. For instance the mathematical function for "Arrive Sunday" "has no greater value than has some alternative, but meaningless, arrangement of the symbols", yet the use of this word 'information' might lead one to think otherwise.

(3) "The proliferation of 'entropies' has led to confusion, and there has occurred a tendency ... to make charges of subjectivity where they are unjustified."

(4) Brillouin coined the term *Negentropy* and his use of the term encouraged the idea that "almost any form of 'information' is freely interconvertible (after appropriate change of sign) into thermodynamic entropy or *visa versa*." This is manifestly untrue, yet many scientists have claimed, or suggested, that the negentropy of the sun's radiation has been transformed into the 'information' stored in the genetic code and expressed in biological macroevolution. The idea is clearly ludicrous.

(5) In discussing Maxwell's demon (see this JOURNAL 96 (2), 3), Denbigh takes the usual line, following Szilard, that *if* the demon is thought of as a mechanical contrivance, obtaining its information as to the whereabouts and speed of molecules by bombarding them, say, with quanta of light, then it will be unable to utilise the information it obtains in this way in order to circumvent the second law of thermodynamics. This conclusion is trite: it tells us only that *if* the "demon" is mechanistic ("could be replaced by a mechanical device") then the overall system will be consistent with mechanics! It is well known that neither Maxwell nor Kelvin (who coined the term "demon") thought of the intelligence in this way. The point is that the "demon" is a discarnate intelligence, or spirit, which obtains its information other than by materialistic means - let us say by ESP. Such an intelligence will in principle be able to make entropy decrease. The application to God and the Creation is obvious. The fact that materialists deny that such intelligences exist is irrelevant.

(6) Denbigh's conclusion is that entropy is certainly objective yet "even if it were proved that it contains a subjective element, the same could hardly be said about the world's pervasive irreversibility."

Before closing this section mention should be made of another very discerning and careful study of the entropy question - Nicholas Georgescu-Roegen's *The Entropy Law and the Economic Process* (1971 Harvard UP). It is very clearly argued and contains much information which one does not often encounter elsewhere. But it does not make for arm-chair reading!

The upshot of the discussion would seem to be that Christians have been short-sighted in so soon forgetting what Kelvin, P.G. Tait, Maxwell and (later) Jeans told them about entropy and Creation.

SCIENCE, PSEUDOSCIENCE AND PREJUDICE

What makes science? What distinguishes it from a multitude of ideas which, whatever those who hold them may claim, are not generally accepted as being scientific?

The usual view, of course, is that in the past scientific men were faced with some ideas which were true and some which were false. They made observations and conducted experiments and in course of time were able to identify the ideas which were true. Those who persisted in holding to the discarded views which had been proved to be untrue became the pseudoscientists of today.

A year or two back a group of sociologists published a study¹ - and a very valuable study it is - intended as an investigation of this very common sense view. How true is it? they asked. They concluded that in general it is often quite true, but in all the cases they studied they found that other factors entered into the picture. Often these turned out to be vastly more important than the simple true/false explanation.

For example, around 1500 AD astrology and medicine were esteemed more or less equally, but a century later the medicos had established themselves professionally while astrological practitioners had largely lost prestige. Why? It was certainly not because medicine had become scientific or had shown itself to be of greater value to humanity than astrology - the medicos of those days, with their repeated purges and blood letting with the aid of leaches did more harm than the astrologers. It was because the medicos ganged themselves together professionally to oppose the astrologers who were a threat to the practice of medicine. But who *were* the medicos? Trained experts in medicine? Not at all. In those far off days all that was necessary to practice medicine was a degree at Oxford or Cambridge or the permission of a bishop!

In much the same way in the Victorian era magicians soon found that, with the growth of spiritualism and professional mediumship, their source of gain was on the decline. Therefore they fought the new invaders all out, imitating what they did and arguing without evidence or proof that all mediums were frauds. Here the scientists seem to have experienced similar feelings. For what was the point of science if mediums could do things which were far beyond anything that science could explain. In this study (p.207f) Jon Palfreman of BBC Television shows how extremely prejudiced such men as Faraday, Tyndall and T.H. Huxley could be (p.207f) when faced with what was, or purported to be, the supernormal.

Apart from astrology and psychical research the chief subjects under study here are Mesmerism, Acupuncture, Phrenology, Creationism, Sea-Serpents and UFOs. In all cases the subjects have been well researched as shown by the extensive literature references given.

An understanding of how world opinion in science, but not in science only, becomes established is of importance to the Christian. Pressure to be conformed to the world is immense and the truth/error theory is widely used to make it seem as if non-conformity is a dishonest way of shirking facts. The knowledge that this theory is suspect, often if not always, gives us courage to find and accept truth without being unduly influenced by the opinions of others. The Bible warns us in no uncertain terms that God can allow lies to be accepted by mankind (2 Thess. 2:11).

The chapters of more direct Christian interest are, perhaps, those written by Eileen Barker ("In the Beginning"), and also three chapters concerned with parapsychology. Eileen Barker (pp.179-200) gives a sympathetic account of the development in very recent years of strong criticism of the attempts to reconcile evolution with the Bible. She believes (rightly? wrongly?) that the general tendency shown by the Victoria Institute to endorse creative evolutionism led to the formation of the Evolution Protest Movement and she notes the same tendency in America where the American Scientific Affiliation formed in 1949 gradually moved toward an acceptance of theistic evolution with the result that in 1963 ten members broke away and formed the Creation Research Society which forthwith grew rapidly.

In a highly informative chapter (pp.237-270) H.M. Collins and T.J. Pinch outline the tactics of the parapsychologists and their critics. It is conceded that some at least of the parapsychological work published is well conducted and appears completely convincing - in particular the paper by Schmidt (reviewed in this JOURNAL 102, 85) is mentioned. Also when (as in the Levy affair) parapsychological work has been suspected of fraud by fellow parapsychologists, they have reacted as vigorously as would scientists in any other field of science. (J. Levy, director of a famous research centre at Durham, N. Carolina, produced excellent parapsychical results in his work on rodents. But Levy was manipulating the automatic data-recording devices and was ruthlessly exposed. On discovering the fraud, details were immediately sent to all persons known to be planning to make use of Levy's work in articles, books or other presentations, or to repeat his experiments. J.B. Rhine announced that all Levy's work should now be considered unacceptable unless confirmed.

The tactics of critics of parapsychology are especially interesting since some of them are similar to the tactics of those who refuse to accept the Christian faith.

First there is the *blind refusal to believe*. D.O. Hebb, the psychologist, wrote:

Why do we not accept ESP as a psychological fact? Rhine has offered us enough evidence to have convinced us on almost any other issue... My own rejection of [Rhine's] view is in a literal sense prejudice" (quoted p.244).

Hume's argument against the Christian miracles is repeated and used against parapsychology.

Since the findings of the parapsychologists are against the laws of nature, we know in advance that they cannot be true. (G.R. Price in *Science*, vol.122)

According to V. Hanlon parapsychological conclusions (he is writing about Uri Geller) fail the Occam's razor test, for "it is only necessary to show that plausible normal explanations have not been excluded in order to prefer such explanations". [Normal explanations are not forthcoming unless 'facts' are manipulated to make them look normal. Compare sceptics' arguments on miracles and religious experience.]

Lack of explanation. That there is no theory to explain psi phenomena "casts doubt upon the reality of the entire structure of parapsychology" (Thomas Szasz). A widespread but strange excuse for rejection, to be sure. Does our acceptance of Newton's gravitation law depend upon the discovery of some queer explanation as to how it works - interchange of hypothetical graviton particles, perhaps? Or our ability to choose, upon a theory of freewill which assumes that the brain is structured like a computer? Does a Christian's belief in answered prayer depend on a theory of how prayer works?

Lack of repeatability. "Successful ESP experiments are not repeatable, and thus do not meet a basic requirement of all scientific experiments" (D. Cohen, 1966). But many experiments have been repeated and many scientific theories (the 'Big Bang' in astronomy, evolution) and many experiments (in chemical literature there are numerous records of products obtained once but never again) do not admit of repetition. Similarly repetition of religious experience or answers to prayer is rarely possible.

Other criticisms of ESP are that it is all due to *fraud*; that its results are too *trivial* to merit careful study, ("That one man is slightly better at guessing cards than another is a trivial circumstance" P.W. Bridgman); or even that the statistics used in such studies is unsound (Spencer Brown - this claim was easily eliminated). Etc.

Jon Palfreman's study of "Victorian Scientific Attitudes to Modern Spiritualism" is also absorbingly interesting. Apart from the occasional use of unnecessarily difficult sociological jargon, I have only one criticism. If ever a book needed an index, it is this one!

REFERENCE

- 1 Roy Wallis (ed.), *On the Margins of Science*, Sociological Review Monograph, No. 27, University of Keele, 1979, PB, 337pp., npg.

RELIGIOUS ORIGINS OF NEWTONIAN SCIENCE

It was the contention of Robert Merton that modern science was born of Puritanism. Though the thesis has been questioned, Charles Webster's monument to scholarship, *The Great Instauration* (1975) strongly supports the thesis and reminds us that Puritan millenarianism was a major factor. According to Webster, the restoration of the Monarchy and of the established Church in 1660 brought the vitality of the early scientific movement to an end. But was this so? In a scholarly study James R. and Margaret C. Jacob ("The Anglican Origins of Modern Science" *Isis* 1980, 71 (257) 251-267) take a very different view.

At the Restoration scientists divided into two groups. One, (which included Boyle) retreated to Oxford colleges from revolutionary London. No longer did its members wish to see radical social reform in the form of egalitarianism and fanaticism, but they *did* hope for reform none-the-less, though within the re-established norms of society. The radicals, on the other hand, became more and more extreme in their antinomianism. Increasingly they were joined by those whose scientific interests were miniscule while their theology became less biblical - sometimes (e.g. Gerrard Winstanley) even pantheistic. These radicals were drawn to alchemy, astrology and the occult sciences which encouraged belief in a universe alive with spirit. If men would but meditate, they said, the reformation would be completed and man would enjoy the millenium on earth. Boyle and his friends reacted from this view and in its place adopted what Boyle called the *corpuscular philosophy* - the world is made of lifeless atoms which a providential God set in motion throughout the universe. By regulating their motions God still maintained the order of nature. This Christianized atomic philosophy, or Christian dualism, was free from all taint of heresy associated with the radical sectaries. It was compatible with hierarchies in church or state. But if the radicals were right in their claim that God's spirit pervades all nature and all men, one opinion was as good as another and there were no grounds for supporting church or state. The cor-

puscularians, on the other hand, claimed that, normally at least, new knowledge comes to man not by direct revelation, but by effort on man's part to discover how God had made His world. Hard work in the cause of science would make men too busy to plan revolutions, while discovery would create new forms of employment. The aims of reform would be achieved in the end, though slowly.

This new philosophy emerged dialectically and became enshrined in Anglicanism during the time of and because of the Revolution: "In that transformation lies the Anglican origins of modern science". Outwardly latitudinarian, its millenarianism remained, though beneath the surface, after 1660. Newton, like other churchmen, saw two dangers ahead - atheism based on the "notion of bodies having, as it were, a complete, absolute and independent reality in themselves", and atheism based on the vulgar radical view that mind and matter are basically the same substance, a view which in effect denies "that God exists, and has created bodies in empty space out of nothing". Against such views Newton insisted on the power of divine will to move "brute and stupid" matter by means of force which "is the causal principle of motion and rest".

"What, then, did Newton's science owe to its religious and ideological roots? It made it possible for Newton to think of gravity as an immaterial force in the universe and not as a property inherent in matter. To hold otherwise, as he continued to argue in his MSS as late as the 1890s, would be to conform to the view of "the vulgar" who postulated a "dwarf-god" or impotent deity. He, on the contrary, insisted on a mechanical philosophy which relied heavily upon spiritual forces. His view owed much to the central arguments of the Anglican virtuosi from 1650 onwards; they made it possible for Newton to develop his theory unencumbered by the difficulties which others felt about action at a distance. In fact the entire "Newtonian Enlightenment was intended by its participants as a vast holding action against materialism..."

For further reading J.R. Jacob's *Robert Boyle and the English Revolution*, 1977 (published by Burt Franklin and Co., NY) may be strongly recommended.

In the end Newton's insistence on the activity of God in physics alienated men like Laplace. (Laplace was not, as popularly supposed, an atheist - he held only that God was not a factor to be reckoned with in the domain of physical science.) It is of interest that many Christians are returning to the Newtonian views, especially in biology ('Creation Science'). The idea that mental/spiritual powers (not necessarily divine) can in fact push inert matter around gains support from psychological research. (See, for example, John Hasted's, *The Metal Benders*, R. and K. Paul, 1981).

URANUS - URANIUM

The planet Uranus was discovered by Sir William Herschel two centuries ago, on 15 Mar. 1781. At first he thought it was a comet: daily he recorded that its apparent size had increased as would be expected for a comet. In fact the distance between Uranus and earth was then increasing! Other astronomers watched the object and, after computing its path, showed that it was travelling round the sun in a near circular orbit and so was a planet - the very first new planet to be discovered since the days of the ancients. Herschel named the object *Georgium Sidus* in honour of his patron, King George III, and for some years it appeared in almanacs as the 'the Georgian'. On the continent this name was disliked. At first it became known as Herschel's planet and, later, following a suggestion by the astronomer Bode, Uranus. It had been seen many times before but on account of its great distance and slow movement, it was always mistaken for a fixed star.

About that time the chemist M.H. Klaproth was analysing minerals in Berlin. In 1799 he studied pitchblende and isolated what he thought was a new element (in fact it was the dioxide) which gave bright yellow salts. This was his second discovery of a new element in that year (the first was zirconium). Herschel's discovery occasioned much excitement at the time and Klaproth decided to call the pitchblende element *uranium*, after the new planet and the chief of the gods in the Greek pantheon.

In his pamphlet *Advent or Atom* recently reprinted (available from PWMI Upperton House, The Avenue, Eastbourne, E. Sussex, BN21 3YB, 80p) E.K. Victor Pearce draws attention to the remarkable 'coincidence' involved in the fact that the pitchblende element, of all elements, should have been named after Uranus. The planet Uranus might easily have had another name: Klaproth, who discovered several new elements within the course of a few years, might easily have chosen another name for this element especially as there was nothing blue or suggestive of heavenly properties about it. Jesus said that in the last days men would be terrified when the powers (*dynamis*) of (Lk 21:26; Mt 24:29) or *in* (Mk 13:25) the heavens (sing. is *ouranos* from which Uranus and uranium are named) should be shaken or loosened (*salenō*). (There are two uraniums, 235 and 238, giving two types of nuclear bomb.) Strange coincidence? Or should we connect it with our Lord's words, "Heaven and earth shall pass away but my words shall not pass away" (Mt. 13:31)?

SHORT NOTES

Need and Greed. In a most interesting article on "Why People Consume" (*Third Way*, May 1981, p.5) J.A. Walter discusses the question of need. Walter challenges the usual idea, current among Christians, that one ought to spend money on one's needs first, what is over being then available for giving to God. Peoples' need to have needs is the danger, he says. Even evangelism tends to present Christ as the answer to human need. "Monasteries, churches and families can grow atrociously rich" while thinking that they are concerned chiefly with giving and serving. "They provide a means by which people can become rich without thinking of themselves as rich" so that biblical teachings on riches and the love of money influence them no more than water on a duck's back. Giving and luxury consuming have become hopelessly confused. "Modern capitalism wants people to be greedy, but the most effective way of making people greedy is to convince them that they are needy."

Earth's magnetic field. Adobe bricks have been made in many parts of the world from time immemorial by taking clay mixed with water, throwing it into a wooden mould and sun drying. Remarkably enough, in the shock of being thrown the magnetite particles in the clay become magnetized proportionately to the intensity of the earth's local field at the time. For ever after the bricks contain a permanent record of the total magnetic field of the earth at the time of manufacture. Kiln fired bricks, in which the particles take up the field of the earth when they cool through the Curie point, give us another record. Archaeological remains of buildings in Egypt going back to 3000 BC have been dated and a study of both kinds of bricks makes it possible to plot the earth's magnetic field in Egypt from 3000 to zero BC. (See Dr. Ken Gammie, *New Scientist* 11 June 1981 678-681) Over the three millenia the total field rose and fell in a somewhat erratic way: in all there were five peaks over the period. The variations are not very great and seem to be due more to local factors than to changes in the earth's field taken as a whole.

Does Man cool the Earth? C. Sagan (*Science* 206, 1363) suggested that the earth's albedo may have been altered substantially over the last few milleniums owing to the activities of man, even to the point of lowering world temperature by about 1° C. The question has recently been studied in detail at the Livermore National Laboratory, California, where the researchers have reached the conclusion that even taking into regard the recent very extensive deforestation of large areas, the average cooling of the world is unlikely to have exceeded 0.2°C, though the effect may be as high as 0.6° for the northern hemisphere. (*Nature* 1981,

291, 47) This is in full agreement with Lovelock's point (see p. 68) that the world is so made that its controls are not easily put out of balance.

On Pretending to be Wise. Dr Stuart Sutherland of the University of Sussex has recently reviewed (*Nature* 1981, 290, 614) one of those all too numerous pretentious books produced by the more uncritical of American social scientists. It is a composite work with the title *The Psychology of Consciousness* (Plenum, 1980 £20.48, edited by J.M. and R.J. Davidson). The book is mainly concerned with regulations of mood by meditation and by transmitter substances. Ignorance and chaotic thinking about the subjects treated have reduced the 15 contributors to incoherence, says Sutherland. "Most of the book's theorizing is so nonsensical that it is impossible to describe... Much of the book - and all of its theoretical sections -- is a farrago of pretentious rubbish; it is atrociously written, with the usual attempt to make commonplace ideas sound important by the introduction of neologisms. In short the book is a disgrace to the publishers, the editors and the contributors." It is cheering to read such forthright comment!

Cult of the Saints. In a recent book with this title (SCM Press, 1981, 187pp., £6.95) Professor Peter Brown tells a familiar but sad story. The veneration of saints commenced in the mid-second century but did not flower till the very end of the third. The doctrine of intercession which marked the point at which veneration became worship was the creation of Origen and Cyprian of Carthage, both mid-third century, but the miracles of the saints did not become important to the church until the late 4th and 5th centuries, at the time when Christianity was rapidly expanding. Professor Brown draws attention to the remarkable way in which the vulgar dragged the *élite* down to their level. Writing in AD 390 Augustine says that the age of miracles has passed; he was particularly scathing about particles of dust from the Holy Land, as he called them. But later in his life it is different: now he dilates with relish on the miracles performed by the relics of St Stephen recently brought from Palestine. In the miracle-working relics he saw a way to refute not only unbelievers but heretics too, because miracle-working relics were preserved in Catholic churches in custody of Catholic clergy. Perhaps history is repeating itself in our modern society. Until recent times the cult of saints was considered by Protestants to be a form of polytheism: today it is being treated with increasing respect (cf. the alleged apparition of Mary to Bernadette at Lourdes, or the frequent singing of the hymn Ave Maria by Protestants).

Abortion in Russia. According to the *Times* correspondent in Moscow, (*Times*, 11 May, 1981), the results of the abolition of Christian morality in Russia are worrying the authorities not a little. On average a Russian woman will have between six and

eight abortions in her life time: some have as many as 15. According to Soviet statistics there are between 2.5 and 4 abortions per child born - the highest ratio in the world. Since abortion following a first pregnancy is often medically harmful, there is now an agitation to stop such abortions, but not abortion in general. The rate of divorce is now so high that one in three marriages break up within the first year of marriage, this being one of the factors favouring a reluctance to have children. In the Moslem South, on the other hand, abortion and divorce are both rare and most women have 8 or 10 children. It is reckoned that by the turn of the century the Russians will be a minority within the Soviet Union.

Early Atmosphere not Reducing. In a strongly reducing atmosphere (free hydrogen, methane and ammonia) corona discharges, UV light etc. produce compounds (amino acids, purines etc.) which are of biological interest. Assuming life to have arisen spontaneously, biologists often take it for granted that the earth's early atmosphere was therefore reducing in character, a view for which there is little evidence. It is good to see that a reaction is at last setting in. The geophysical evidence points strongly to the view that the smaller planets, including Earth, started off with an oxidised atmosphere consisting chiefly of CO₂, nitrogen and water vapour. A. Henderson-Sellers, A. Benlow and J. Meadows think the view commonly expressed by biologists stems "as much from ignorance of recent advances as from active opposition to them" (*Quart. Jour. Roy. Astron. Soc.* 1980, 21, 74). Hoyle has also criticised the reducing atmosphere view. It had long been assumed that Titan, the largest (diameter 4820km) moon in the solar system and the only one with an atmosphere, was enveloped in methane. However the 1980 visit of Voyager I showed that the atmosphere consists of nitrogen - if methane is present it is certainly below 1% (*New Scientist*, 20 Nov. 1980 etc.). This is considered to be a set-back for the view that early atmospheres are likely to be reducing.

Struggle Theory in Marxism. Marxist opposition to the theories of Western science is no new phenomenon, the best known example being afforded by the genetics controversy. Dr R.M. Wood has told the story of Russian opposition to Wegener's hypothesis of continental drift and to its more modern development in plate tectonics. (*New Scientist* 12 June, 1980, p.234-237). An American once suggested (in 1930) that the Earth is like a clumsy heart that pulsates between systolic (compressional) and diastolic (dilatational) phases, and suitable jargon was invented to emphasize the supposed resemblance. The Soviet geologist M.M. Tetyayev in (1934) adopted the theory which became accepted in the Stalinist era. "Geotectonics is a manifestation of the process of self-development of the earth's matter. This process progresses as the result of a struggle between two conflicting factors immanent to the earth's matter, compression and expansion... periods of

suppressed struggle... are followed by a revolutionary phase" (M.A. Usov, 1951). Between 1970 and 1973 the Russians organised an expedition to Iceland but unlike the Western scientists could discover no sign of "any drifting apart of the continents fringing the Atlantic Ocean" (V.V. Belousov, 1977). Despite signs of interest in plate tectonics among some of the younger scientists, senior Russian geologists still insist on "vertical movements in geology, as if horizontal movements were banned by an act of state." The authoritarian scientific bureaucracy ensures that Western scientific journals are almost unobtainable in Russia - "genuine reprints of important Western papers are of high value and may be locked in a safe at night" - a situation which makes it difficult for younger men to view matters objectively.

Children's Conversation. Two books of delightful nursery conversations have been published by the Harvard University Press (G.B. Matthews *Philosophy and the Young Child*, 1981, £6.50 and V.G. Paley, *Wally's Stories*, 1981, £7.50). In both the children talk very naturally about God. The first shows that the problems they raise are the problems philosophers have raised down the centuries and the answers they find are often the same. "Philosophy itself can be seen as institutionalized naivety" concludes the reviewer in the *Times Literary Supplement*. (8 May; 10 July)

IQ and Heredity. A survey of the subject (*Science*, 29 May 1981, 212, 1055) covering 111 separate studies involving 55,000 individuals reaches no clear cut conclusion save that 'intelligence' seems to be inherited to some extent, but to what extent is still not known. The IQs of identical twins reared together may give correlations as low as 0.6 or as high as 0.95: with non-identical siblings reared together the correlations vary from 0.1 to 0.9. In one study the IQs of unrelated adopted children was greater than that of identical twins reared together as found in another study. It is clear that genes, environment and, surely, freewill are all involved, but everyone knew that before.

The Failure of Prophecy. Robert P. Carroll's *When Prophecy Failed*, SCM, 1979 is an unusual and extremely interesting book. It applies the findings of L. Festinger (*When Prophecy Fails*, 1956) to Christians and the Bible. When Christians expect a prophecy to come true and it fails to do so they reduce their "cognitive dissonance" (to use Festinger's jargon) by reinterpretation - Lk 24:13-55 is considered to be the classic biblical example. The prophecies of Isaiah, the Limits of Prophecy and tests of prophecy are among subjects discussed.

Dinosaurs at Large? It seems just possible that a few dinosaurs, which have figured so much in a certain type of Christian literature about the Flood, are still alive today. A year ago Professor Roy Mackal visited pygmy tribesmen in the Congo who

told him about brownish grey monsters, with short fat legs, weighing perhaps 9-15 tons and measuring about 35 feet in length, which live in the jungle. An expedition is being mounted in search of the beasts. (*Times* 12 June 1981)

Gas and Biological Warfare. Evidence that the British Government at the end of WW2 was seriously thinking of using gas and even biological warfare is coming to light. In December 1945 Dr O.H. Wansbrough-Jones sent a memorandum to the chiefs of staff on the subject, copies of which have now been sent to MPs concerned with Defence. Such weapons were seen as an alternative to nuclear war; but they might have the effect of lowering the threshold at which mass killings might begin. (*Times* 25 May 1981)

At the close of WW2 considerable stocks of poison gas and of anthrax infected material were held in Britain. In July 1944 Churchill, faced with the possibility that V2s might win the war for Germany, seriously considered using gas against German cities but was advised against it. (David Irving, Letter, *Times*, 20 May 1981. Also earlier report, 1 May and Letter, 11 May) Such are the ethics of war that had the command been given, we may be sure that young men would have used poison gas and even anthrax against German cities just as they used phosphorus and high explosive bombs. We are now told by the experts that if the anthrax has had been used against Berlin the city would have remained uninhabitable to this day.

Life on Mars? The surprise caused by the discovery that there is now no life on Mars led to the view that although there is no life there now, there might have been in the past. It was suggested that the wide channels (30-100 miles in width) on the surface of the planet were caused by catastrophic floods in earlier days when there was abundant free water on the planet and life might have been present. However this explanation of the so-called outflow channels is unnecessary. The channels seem to be the result of glacier movement. Rifts in the earth's surface of comparable size and appearance are found in Antarctica and are caused by the slow flow of glaciers. (*Nature* 1981, 290, 759)

Providence. In March 1939 Hitler visited the rocket experimental station but was quite unimpressed. He never visited Peenemünde (p.28). In 1943 Speer made repeated requests to Hitler for higher priority for the A4 (i.e. V2) programme. In March of that year Hitler at last replied: "I have dreamed a dream that the rocket will never be operational against England. I can only rely on my inspirations. It is therefore pointless to give more support to the project." (p.42) On July 7 Hitler changed his mind and granted top priority. "A stroke of the Fuhrer's pen could not compensate for months of irretrievably lost time. Final A4 production drawings were not ready, nor could they be, for the missile had long struggled along pampered by shortages of manpower and

materials" (p.62). References to F.I. Ordway III and M.R. Sharpe, *The Rocket Team*, Heinemann 1979.

Blasphemy Law. It has been argued that because the recent successful prosecution of *Gay News* led to the illegal and deliberate circulation of the offending poem, the blasphemy law should be repealed. Mary Whitehouse (*Times*, Letter, 20 May 1981) comments: For heaven's sake, why stop at blasphemy? If thieves etc. continue to disobey the law that proscribes their activities, we do not make stealing etc. legal. "Blasphemy was made a criminal offence in order to safeguard the tranquility of the realm. In a pluralistic society blasphemy laws are necessary to protect all religious beliefs from scurrility, vilification, ridicule and contempt." (Lord Scarman in the House of Lords at the time of the appeal against the conviction)

Genetic Engineering. Disregard for safety by those who ignore codes of conduct regulating genetic engineering is receiving much attention by the media. In a recent case Dr Martin Cline of the National Institute of Health, California, has been attempting to transplant genes into human beings for the first time. It was concluded that "Dr Cline had violated both the letter and the spirit of proper safeguards to biomedical research" (*Times* 30 May, 1981) For the dangers of irresponsible research in this field see this JOURNAL 103, 68.

Origin of Life - Bentonite. It has often been suggested in recent years that bentonite (a clay) was in some way involved in the origin of life on earth. In 1979 some rather inconclusive experiments were described which were interpreted to mean that bentonite has the property of adsorbing only the L forms of aminoacids on its surface. Is bentonite the source of chirality in nature? it was asked. (See this JOURNAL 100, 114) More recent work using bentonite from four sources has done nothing to confirm its alleged preference for L forms. (*Science* 1981, 212, 1145)

Pitldown. The tenth and last part of "Pitldown Man", written by L. Harrison Matthews, FRs, appeared in the *New Scientist* issue of 2 July 1981. The articles are enchantingly written in the form, almost, of a detective story. The case against Teilhard de Chardin could hardly be stronger. In a letter to Dr Oakley dated 28 Nov. 1953 he more than once virtually confesses to having planted the tooth, but the meaning of his letter, which was evidently intended as a confession, was overlooked. It is clear that a good many people knew about the hoax before it was finally exposed. Alas, such was the gullibility of man that in 1950 the Nature Conservancy spent public money in moving tons of gravel away from the site - without of course discovering any fossils or flint artifacts - and fitting a glass panel with explanatory notices over the gravel. The site was duly declared a National Monument!

Computers. Bernard Levin, writing in the *Times*, recently said, or at least implied, that no computer, what ever else it can do, can write a sonnet. On reading this two members of the staff of Nene College, Northampton, whispered news of the insult to the College's pet computer (Letter, *Times* 23 April 1981). After consulting its memory for the rules of sonnet composition and its storage bins for lists of rhymed words, it quickly wrote an excellent 14-line sonnet which ends:

Now, think on this, take heed of all I say --
Today, you rule: tomorrow I hold sway.

* * * * *

Hans Küng is reported to have said, "I believe in the Virgin Birth, but not in a biological sense." Rather like saying, "I have been baptized in water, but not aquatically" comments *Prophetic Witness*.



READERS' COMMENTS

AN EYE FOR AN EYE

Mr H.L. Ellison writes to correct the impression given by the note on this subject (107 (2), p.78).

"It is easy to go astray in the vast ocean of Judaica." Josephus says that the words can be taken literally but that in Jewish law, in such cases, the wronged person had the right to decide what the punishment of the person who had injured him should be: he could insist on the literal eye for an eye but the more merciful alternative was to ask for compensation (*Ant.* IV.8. 35). In the Pharisaic tradition the merciful interpretation was held with the one exception of R. Eli'ezer, c.AD 90, who said "Eye for eye means the literal eye". The House of Boethus (a Sadducean group) is said to have held to the literal meaning of Ex. 21:24, cf *Meg Ta'an* 4: "The House of Boethus said, 'Eye for eye, tooth for tooth. If anyone knocks anyone's tooth out, one knocks his tooth out. If he blinds the eye of another, his own eye is blinded, so that they may be equal'" (Strack-Billerbeck, *Kommentar zum Neuem Testament aus Talmud und Midrasch*, Vol. IV.1. p.350. On Eliezer see Vol.1 p. 340). Caiaphas and many other high priests belonged to the House of Boethus.

E.L. MARTIN ON THE NATIVITY - From Dr Colin J. Hemer

It is timely to note the appearance of a second, much changed edition of Dr E.L. Martin's *The Birth of Christ Recalculated*, previously reviewed in Vol.107, No.2 (Nov. 1980) of this JOURNAL. The new edition is much enlarged, incorporating fully most of the additions published separately as supplements to the former version, together with much new material. Dr Martin has changed his mind about the actual year of the Nativity, moving it back from 2 to 3 BC. This difference, while involving the central thesis of the book, is essentially a shift in his estimate and assessment of circumstance and probability within his basic contention that Herod's death should be connected with the eclipse of 1 BC, not that of 4 BC as usually believed. There he stands firm.

It remains difficult to evaluate the ramifications of so bold a challenge to accepted chronology. The burden of proof lies on the challenger. Dr Martin is an enthusiast convinced of a theory which at the least contains some strong and suggestive points. His case for the reconsideration of several obscure episodes in Roman history, the registration, the sequence of governors of Syria, the war of Varus and the movements of Gaius Caesar, is all most interesting,

and worth rigorous assessment by Roman historians. It would be easier to judge if we had the evidence and documentation set out and discussed systematically rather than drawn into the current of a convinced exposition. Dr Martin may be going too far too fast, and finding support in too many uncertain combinations, suppositions and harmonizations. It would be good to see some of this presented in more formally academic style.

The central difficulty is still the date of Herod's death. The author has to depend on his supposition that the tetrarch successors antedated their reigns. It is not strong ground for a challenger to argue from what 'may have been'. But for all that, the period is notoriously obscure, and such options should not be discounted without reconsideration. It would be a pity if some were put off by the questionable arguments for exact dates and the lack of critical interaction. There is room, for instance, for closer evaluation of the apparently strong arguments of T.D. Barnes against any such later redating of Herod. And it is often difficult to resist the feeling that this ingenious weaving together of so many diverse contemporary threads is suspect.

It was a pleasure to meet Dr Martin in London recently and find him vigorous in advocacy and thoughtfully responsive to criticisms.

1. *The Birth of Christ Recalculated*, 2nd ed., Foundation for Biblical Research, Pasadena and Newcastle-upon-Tyne, 1980.
2. Barnes, *Journal of Theological Studies*, new ser.19 (1968) 204-209.

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DAVID LYON

CHRISTIANITY AND MARXISM:
THE AFTERMATH OF DIALOGUE

In this paper, based on that given at the 1980 Symposium, Dr Lyon outlines the course which Christian-Marxist dialogue has taken since the 1960s. He argues that such dialogue, while necessary and important, is not without attendant difficulties and dangers.

For me, Christian-Marxist dialogue is an everyday reality, a necessity. In our 'Community Studies' department we examine social relationships in a theoretical and a practical way, based around an exploration of the community-idea. Intellectually, much of the social analysis and theory which we teach has been tempered by the challenge of Marxism. But in a practical way, as well, students who go on to be community workers (in the widest sense) will often take their bearings from Marxist analyses of the city and of welfare, as well as capitalist society generally. As a Christian, aiming at intellectual integrity in my teaching, I am forced to a serious consideration and discussion of Marxism. I cannot capitulate to a system of post-Christian humanism¹, but neither can I ignore the potentially relevant thrust of much Marxist social analysis.

The question is — can such dialogue produce anything worthwhile — and has it done so? Bob Dylan apparently thinks not: "counterfeit philosophies have polluted all of our thought; Karl Marx has got you by the throat..."² Maybe Christians are the mere suckers Lenin suggested they are. "We shall find our most fertile field for infiltration of Marxism within the field of religion, because religious people are the most gullible and will accept almost anything if it is couched in religious terminology"³. There are grounds for believing that Lenin was right.

My main aim is to access the 'aftermath of dialogue', as I have deliberately termed it. 'Christians' and 'Marxists' of various hues have engaged in dialogue since the early 1960s and, in certain places, the dialogue continues into the 1980s. This is an impressionistic and necessarily selective appraisal of that dialogue, and some might also add 'premature'. However, I

believe that enough has occurred, thus far to show the direction in which such dialogue seems to be going, and that some lessons may be drawn from it.

'Dialogue' is defined as "an exchange of views in the hope of ultimately reaching agreement" (*Chambers Dictionary*), but while this is a good beginning, it is somewhat vague. However, as we shall see, some dialogue participants have ended by agreeing that the two projects of Christianity and Marxism are the same, so the vague definition is worth retaining. 'Aftermath' (according to the same Dictionary) has to do with later consequences, "especially if bad", and this also is what I intend. On the other hand I do *not* intend to say that dialogue is pointless or worthless (as I said, it is for me a fruitful necessity), or that dialogue necessarily leads to debilitating compromise, an automatic sell-out to the dialogical partner.

Three tasks confront us, requiring elaboration. Firstly, I shall examine the historical career and social context of the dialogue, attempting to stretch its salient features. Secondly, I shall comment on the polarizations of Christian opinion on the effects of dialogue, arguing that neither right or left wing responses from a Christian viewpoint, have proved particularly healthy or helpful. And thirdly, I shall glance at future possibilities for dialogue, bearing in mind what has transpired thus far.

It would be naive to imagine that the history of dialogue between Christians and Marxists can be encompassed in a few paragraphs. Moreover there are different types of dialogue, from the informal discussion to the highly organized international conference. And limiting oneself to one 'side' of the dialogue does not help, because there is a mass of material from the Christian side, and precious little from the 'Marxist'. It is also difficult to decide *when* to begin. However, although there were efforts at dialogue, especially between *theology* and Marxism, notably associated with Emil Brunner and Reinhold Niebuhr⁴ before the First World War (WW1) it was after World War Two (WW2) that the dialogue proper took off.

It cannot be denied that the 'thaw' which made dialogue (at least of an official nature) possible is traceable to the 20th Party Congress in USSR in 1956, and the 2nd Vatican Council of 1962. Khrushchnev's denunciation of Stalin seemed to herald a new mood of willingness (among some, in the satellites of Poland, Czechoslovakia and Yugoslavia) to question certain dogmas which had come to be associated with party-line communism. And Pope John's desire for *Pacem in Terris*, in the face of cold war and a nuclear arms race between the superpowers resulted in permissible attitudes (at least among Catholics) towards a system once branded as an atheist enemy. In Roger Garaudy's words, there was a shift "from anathema to dialogue"⁵.

It was no accident, then, that the dialogue took place in the context of an urgent desire to bring reconciliation to a world which threatened to tear itself apart. Among cultural critics of the time, the 'end of ideology'⁶ was being vigorously proclaimed, and among sociologists, the notion that 'industrial society' was eliminating the differences between East and West in a process of 'convergence'⁷, became widely accepted. In other words, we should not be wrong to think that more than detached academic curiosity, or a desire of some intellectuals to come to terms with major systems, was involved. Marxism was being equated with the East and Christianity with the West⁸. The bringing together of these two sides was nothing less than an attempt to prevent a holocaust. One suspects that this gave an early dynamic to the dialogue, and indeed, some of its ongoing rationale⁹.

Of course, others entered the dialogue for less ambitious reasons. Intellectuals in Soviet satellite countries, such as Poland, Czechoslovakia and Yugoslavia, were desperate for the fresh air of free enquiry and this offered a possible window to be opened. Milan Machovec and Josef Hromádka in Prague and Adam Schaff in Warsaw are examples. Those efforts at dialogue, well publicized during the mid sixties, were brought to an abrupt end by the events of August 1968.

Intellectual movement also contributed to the possibility of dialogue. The writings of the 'young Marx' which only became available in the 1930s, were the subject of increasingly widespread discussion after WW2. Indeed, one critically important work, the *Grundrisse*, did not appear in English until the early 1970s, and this has also given a new start to dialogue. The 'young Marx' could be read as a humanistic philosopher, one concerned for an end to alienation and willing to view persons as active agents. The heavy, positivist-tending writings of Marx and especially Engels, which now culminated in the official doctrines of dialectical materialism, and which the Hungarian Georg Lukács had originally attempted to soften, were shown to be only one aspect of the total Marxist corpus.

A good example of the continued effect of de-Stalinization and the discovery of the 'young Marx' is the work of Roger Garaudy, a French CP member who was subsequently expelled from the party for his intellectual adventures. For two decades Garaudy had been a leading CP thinker working along Stalinist lines. But in 1970, the year of his expulsion, he wrote, "Marxism contains within itself, in its very principles, infinite possibilities of development and renewal" fully recognizing that this recognition "necessitated breaking with an ingrained habitual procedure"^{10a}.

But what exactly has the Christian-Marxist dialogue been about? The theme for dialogue identified by Garaudy provides a

useful way on to a more general look at the topics discussed by participants. He argued that Marx thought about religion in more than one way. Yes, opium which distracts from earthly tasks constitutes part of the message, but Marx also regarded religion as an expression of and a protest against real distress. Thus, religion might function either to legitimate the *status quo*, or to articulate a protest (which could lead to action) against it. For Garaudy, Christianity provided a symbolic language in which to express deep human aspirations. But it appears that, for all his enthusiasm about dialogue, he still regarded Marxism as the "awareness of the underlying movement that governs our history"^{10b} Christianity could only illuminate the subjective area, stimulating brotherhood and justice.

However, as Peter Hebblethwaite¹¹ has indicated, Christians have also taken such a line. At the Salzburg dialogue Karl Rahner argued against an identification of Christian hope and Marxist utopianism. The two visions are not even on the same level. Christian hope rather "fills the vacuum left by the Marxist expectation for the future..."^{11a}. Moreover, it is dangerous to turn the future into an idol on whose altar whole generations can be sacrificed, and illusory to try to freeze a particular form of post-revolutionary society which is claimed to have 'arrived'.

Hope, the nature of man, an alleged common biblical heritage, the future, transcendence, freedom, praxis, alienation — all these and others have formed dialogical themes. But none of the dialogue seems to have produced significantly new insights into these topics even though some have argued that common ground has been found in the effort to enhance human dignity, wholeness, freedom and so on. A curious feature that has followed from the choice of themes has been the difficulty of identifying typical, orthodox Marxists or Christians among the ranks of the participants. As more than one commentator remarked at an early stage, dialogue members seemed willing to minimize precisely those areas of belief which were normally taken to be characteristic of their faith; Marxists played down violent revolution, Christians played down the inherent sinfulness of humanity.¹²

One need only glance at a couple of leading participants to see how this is true. On the Marxist side we have already mentioned Garaudy, with his background of intractable party-line dogmatism. His shift in emphasis (precursor rather than consequence of dialogue) towards a gradualist and non-violent socialism seems to have finally pushed him out of the Marxist camp altogether. No Marxist calls for a 'purposeful capitalism' with 'human goals' as he once did.¹³ Neither are the majority of Marxists happy with the Chinese influenced anarcho-syndicalism which he more recently adopted. "Ironically" says Dale Vree

"Christians have gained a sincere partner in dialogue, but it is highly doubtful that, in making dialogue with Garaudy, they will be making dialogue with a normative Marxist"¹³

Likewise, with the 'Christian' side represented by men such as Metz, Moltmann, Rahner, Gollwitzer and Hromadka, it is clear that an unambiguously biblical stance is not to be expected. For all the freshness of some of their insights, and their proper corrections to evangelical and other Protestant theology, they hardly represent orthodoxy. Moltmann, for example, brings Christian hope firmly down to earth as the 'political liberation of mankind' and seemingly minimizes biblical faith in the new heaven and new earth, resurrection and so on. As Andrew Kirk puts it: "I am not satisfied that Moltmann has really grasped the nettle: the relationship between eschatological liberation which includes the groaning creation, and the personal justification of the individual who accepts that in Christ's death his sin has been borne and his guilt removed."^{14a} Just as some Marxist participants are difficult to recognize as such, so those who join the 'Christian' side of the dialogue seem willing to follow an agenda not entirely controlled by biblical revelation.

But we may not limit 'dialogue' between Marxism and Christianity to those in East and West Europe. Although many Latin Americans would repudiate what went on in these dialogues in the 1960s, their emergent theology of liberation has certain features in common with the dialogue. The situation may be different again in Asia or Africa, but on more continents too, the encounter, confrontation, or synthesis of Marxism with Christianity is a feature of the continual debate too significant to be neglected.

In Latin America the proposal for a 'theology of liberation' was inspired, not so much by desire for a peaceful solution to misunderstandings, but by a commitment among Christians to a concrete demonstration of concern for the plight of the poor and oppressed. As Paul Mojzes rightly points out⁹, 'public dialogue' is far less appropriate in Latin America, both because of the urgency of tackling actual social injustices (which would be Miguez's point) and because of the everyday reality of oppressive forces unsympathetic to such subversive talk.

As with the European dialogue, however, the main direction of thought-flow has been from Marxism to Christianity. Kirk, again, "...the most significant aspect of Liberation Theology is the use of Marxism as an ideological tool in liberating theology and, as a consequence, liberating the church to become an instrument for change in society."^{14b} It must be said, however, that evidence for liberation theology's use of Marxian analysis is hard to find. (There is another similarity which we shall not explore but merely comment on, that Catholics have been more involved than Protestants.)

A new method of doing theology has been introduced by the liberationists. They begin with political commitment, to people-in-history, and reflect that in the light of faith, obedience (related to righting injustices) precedes theological interpretation. Nothing less than a quest for a new hermeneutic is the product of liberation theology.

Space forbids treatment of the encounter of Christians with Marxism in India, Africa, in the European movement, or among blacks in North America, but the general picture which may be built up is not dissimilar. While some Marxists appear willing to concede some validity to Christian groups who have repudiated the Constantinianism of conventional orthodoxy and who opt rather for some forms of chiliastic radicalism, an increasing number of Christians seem willing to accommodate at least a humanistic Marxism, if not some of the social analysis (or at least its slogans) of the more dogmatic variety.

Such comments would also be true of North American intellectuals who have continued the old dialogue on the soil of tolerant pluralism. The widespread enthusiasm for some version of liberation theology (which could, cynically, be viewed as American voguish bandwagonism) led to Christianity and socialism conferences in Washington, San Francisco and Chicago in 1977, and a Christian-Marxist conference at Rosemont PA on "US socio-economic order in the next decade: Christian and Marxist perspectives in" in 1978.^{9a} I believe that such comments would also apply to the British scene, even though as far as I am aware, no official dialogue has taken place except in print. *Marxism Today* carried a series of articles by 'Marxists' and 'Christians' in 1966-7¹⁵, there was a short-lived Catholic-Marxist journal, *Slant*, and more recent articles in the *New Blackfriars*¹⁶ Protestants are again underrepresented and, although there is obvious Marxist-oriented commitment among B.C.C. adherents, it is unlikely that they would also identify in any way with evangelicals.

As to the future public or official dialogue, it seems unlikely, given the current increased East-West tension, that it will be popular. A new anti-communist mood has been reawakened in the USA and this will no doubt dampen dialogue enthusiasm. Also, in a sense, there is little need for public dialogue -- Marxist slogans seem to have become an expected aspect of theological education. It remains to be seen whether it can resist total domestication and if its radicalism will be maintained.

Responses

The literature of Christian response to dialogue and Christian-Marxist encounter has achieved almost as prolific proportions as writing within the dialogue itself, and this of course also

perpetuates discussion. The polarisation between those who have accepted the notion of dialogue, and been willing to 'repent' of past blindness and class-interest, on the one hand, and those who regard the whole project as a major heretical deviation from historic Christianity, on the other, is reflected in the responses. We shall limit ourselves mainly to a consideration of some responses made and supported by evangelicals in Britain.

Negative responses, first of all, were given a boost by Edward Norman's 1978 Reith Lectures. He attacked what he saw as the politicization of the gospel, by which he meant "...the internal transformation of the faith itself, so that it comes to be defined in terms of political values"¹⁷. His continent-by-continent survey is intended to demonstrate this movement, which he sees as an attempt by the decreasingly significant church to regain credibility by wording its message in contemporary radical activist terms. Despite his incredibly vague 'Christian' affirmation of 'ethereal' and 'celestial realities' signposted in the "materials of eternity [which] lie thick upon the ground", evangelicals can be heard applauding his efforts. Of course he made some valid and penetrating points about politicization, with which one cannot but agree, but he also made a number of errors of fact and thus judgment which simply exposed his commitment to certain class and cultural prejudices, and his unwillingness to permit their scrutiny.

Another popular source of evaluation of attempt at Christian-Marxist dialogue, it would seem, is the number of organizations who publicise the plight of Christian believers in communist countries. One such organisation has published an exposure of Marx which makes the intriguing suggestion that Marx himself was a Satanist, and that his followers also show evidence of satanic inclinations¹⁸. The same organisation published in 1979 a booklet entitled *No Compromise Possible*¹⁹, in which Marxist-Leninism is declared to be "not for the church". Again, generalisations are made on the basis of inadequate information, but they are given emotional weight by the appeal to consider the sufferings of those persecuted for their faith by totalitarian regimes. Such appeals should have our sympathy, but are not the basis of the argument.

On the side of positive response, little exists, except perhaps among those whose outlook was influenced by the appearance of Míguez Bonino's *Christians and Marxists: the mutual Challenge to Revolution* in 1976. But Míguez's situation is very difficult for Britons to understand, although the dilemmas of identification with the church and the poor in Argentina arouse considerable sympathy. The same might be said for comments in *Third Way*²⁰ from Chris Sugden in Bangalore: Christians may be voting for Marxist parties in India, and the Indian Christians may well be "more open than others to see in Jesus the fulfillment of their

hopes for a just society", but India is a long way away.

Two new books from Andrew Kirk, *Theology Encounters Revolution* and *Liberation Theology*, may encourage a new positive response to Christian-Marxist dialogue, but it is too early to make any judgments on this (and again detailed Marxian analysis is missing). Although again his work springs from Latin American experience, the fact that he is a *Westerner* grappling with alien realities, brings the message of the liberationists and revolutionaries — and a critique of their position — much nearer home. He emphasises the need to re-evaluate the *how, where* and *why* of theology in the light of the liberationists' challenge, concluding that theology must become engaged with the real world, in order, secondly, to show the relevance of the "gospel of the kingdom to the poor",^{14c} in specific situations, and lastly, in answer to 'how?' theology must follow the hermeneutical circle. The original meaning of scriptural texts must challenge the idolatries of power and privilege "which so often shape the life of both church and world", and above all must be interpreted from the "the praxis of the cross and resurrection"^{14c}. But Kirk decisively rejects Marx and Marxism, despite what he has learned from his enforced encounter with both. Marxism's main deficiency, according to Kirk, following from its humanistic basis, is its inadequate analysis of evil, and therefore its impotence to produce genuine human transformation.^{14d}

Future Dialogue?

As I suggested, public dialogues may continue to wane in popularity in the present international climate. That does not mean, however, that Marx and Marxism will also wane. Marxism, at least as a tool of analysis, still provides a present challenge both at the level of grass-roots practical involvement on social intervention and in academic theology. Dialogue — the exchange of views with the hope of reaching agreement — is still a necessary fact of everyday life for some. And even if dialogue proves sterile, Christians must still be conversant with Marxism if they are to understand the challenge and respond to it in a biblical and Christ-centred way.

Undoubtedly, the traffic resulting from dialogue of all kinds has been overwhelmingly one way. More Christians than Marxists have been involved, but while Marxists have felt unable to accept any basic tenets of orthodox Christian commitment, although they may have softened their hostility to Christians, Christians seem to have been very ready to adopt Marxist categories, and to have their eyes brought firmly down to a this-worldly horizon. Politicization of Christianity has occurred both in the new language of alienation, praxis, and ideology, and in the commitment to socio-political action as an expression of the message of

redemption²¹. Curiously enough Christians do not seem to have gone far beyond the acceptance of Marxist slogans. Although it is true that Marxists who engaged in dialogue have also had to modify their views, this has not been significant in proportion to Christian changes.

The conclusion to be drawn is based partly on an avenue we have not explored here, but which must be stated. The impossibility of what Vree calls 'synthetic dialogue' is due, fundamentally, to the incompatibility of the two belief systems. In part the old European-based dialogue became increasingly monological so that in the end, as Alvin C. Currier put it, "separation into the categories of Christian and Marxist seemed inconsequential"³⁴. Somehow, despite what he sees as the theological incompatibility of Christianity and Marxism, Peter Hebblethwaite felt able to conclude his study with Teilhard de Chardin's (a basically humanist) vision of synthesis between a "transformed Marxism and a renewed Christianity"³⁵. He illustrates once again that the price paid for synthetic dialogue is the essence of Christian and Marxist commitment. In short, I believe that the Christian who also claims to be a Marxist is in fact following 'another gospel'. The Bible is demoted; salvation perverted. No synthesis or symbiosis is desirable or possible.

Nevertheless, two tasks remain for Christians, one of which is still - dialogue. Not dialogue for synthesis, but dialogue for understanding. Those who work alongside Marxists in everyday life and social involvement must find a *modus vivendi*. Agreement needs to be found both on what *is* acceptable in Marxist analysis - a task hardly begun - and on strategy in common for community action, union policy, or a whatever. While that is true for Britain, it is even more pressing in situations of greater brutality, injustice, and exploitation, wherever it is found. Moreover dialogue-for-understanding is also necessary in countries where state-socialism is the order of the day. Believers in Yugoslavia, Romania etc. must struggle to find biblically consistent ways of "seeking the welfare of the city" in which God's providence has placed them. The examples of Kusmic and Ton ought to be emulated here.

Dialogue for understanding must also take place at the theological level. For all its deficiencies, a movement like liberation theology contains lessons for other Christians to be ignored at the peril of ignoring scripture. It highlights the ease with which theology becomes culture-and-class-bound (although it tends to swing to another pole of culture-bondage). And it highlights the speculative and abstract nature of much theology which has blinded us to the realities of an unjust and immoral world which requires change. Such theology fails to come up to the demands of Jesus Himself, spelt out so plainly in Matthew 28.

Lastly, it challenges the church to be characterised by new life, rather than the old. The old life, as Kirk reminds us, is manifest in "legal righteousness, without genuine repentance and faith, in human wisdom, without the knowledge of God's purposes and in political and economic power, without compassion for the weak in society."³⁶ The scriptures demand something totally different.

In the end, then, Christians are challenged by the dialogue to go beyond Marxism and, eventually to repudiate it as an inadequate and contradictory world-view and action-system. Alongside dialogue-for-understanding is needed confrontation, the willingness not only to accept the challenge of Marxism, but to argue *and demonstrate* the ultimate paucity of its salvific claims and, I might say, some of its analysis. The social implications of the good news of Jesus are more radical than any of Marx's proposals for struggle and revolution. We shall not avoid the contradictions of capitalism, or those of state-socialism, while we are in the flesh, so to hope for peace by simply ignoring Marxism or writing it off without thought is to hope for an illusion. But to recognise that the contradictions and struggles which we all face daily, and which will continue to frustrate, anger and sadden us, are ultimately caused by our rebellion against God and our sinful rejection of His ways is to be supremely realistic. That kind-of realism will shut us up to the only ultimate solution to the painful problem of our unequal and greedy world — the cross on which Jesus of Nazareth died, the just for the unjust, that we might be brought to God. That realism leads to authentic optimism.

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ANDREW F WALLS

THE GOSPEL AS THE PRISONER AND LIBERATOR OF CULTURE

In this fascinating paper, based on his lecture given at the 1980 VI Symposium, Professor Walls discusses the reasons for the amazing variations in the forms which Christianity can take and applies his findings, in particular, to present-day African theology.

Is there a "historic Christian Faith"?

Let us imagine a long-living scholarly space visitor — a Professor of Comparative Inter-Planetary Religions perhaps — who is able to get periodic space-grants which enable him to visit Earth for field study every few centuries. Let us further assume that he wishes to pursue the study of the earth-religion Christianity on principles of Baconian induction, observing the practices, habits and concerns of a representative sample of Christians, and that he exploits the advantage he has over any earthbound scholar by taking his sample across the centuries.

Let us assume his first visit to be to a group of the original Jerusalem Christians, about 37 AD. He notes that they are all Jews; indeed, they are meeting in the Temple, where only Jews can enter. They offer animal sacrifices. They keep the seventh day punctiliously free from work. They circumcize their male children. They carefully follow a succession of rituals, and delight in the reading of old Law books. They appear, in fact, to be one of several "denominations" of Judaism. What distinguishes them from the others is simply that they identify the figures of Messiah, Son of Man and Suffering Servant (figures all described in those law books) with the recent prophet-teacher Jesus of Nazareth, whom they believe to have inaugurated the last days. They live normal family lives, with a penchant for large, close families; and they have a tightly-knit social organization, with many common meals taken in each other's houses. Law and joyful observance strike our spaceman observer as key notes of the religion of these early Christians.

His next visit to earth is made about 325 AD. He attends a great meeting of Church leaders — perhaps even the Council of Nicea. The company come from all over the Mediterranean world and beyond it, but hardly one of them is Jewish; indeed on the whole they are rather hostile to Jews. They are horrified at the thought of animal sacrifices; when they talk about offering sacrifices they mean bread and wine used rather as it was in the house meals our observer noticed in Jerusalem. They do not have children themselves, since Church leaders are not expected to marry, and indeed most of them regard marriage as an inferior, morally compromised state; but they would regard a parent who circumcized his children as having betrayed his faith. They treat the Seventh Day as an ordinary working day: they have special religious observances on the first day, but do not necessarily abstain from work or other activities. They use the Law Books that the Jerusalem Christians used, in translation, and thus know the titles Messiah, Son of Man and Suffering Servant; but 'Messiah' has now become almost the surname of Jesus, and the other titles are hardly used at all. They give equal value to another set of writings, not even composed when the Jerusalem Christians met, and tend to use other titles, 'Son of God', 'Lord', to designate Jesus.

Their present preoccupation, however, is with the application of another set of words to Jesus — words not to be found in either set of writings. The debate, (and they believe it of absolutely fundamental importance) is over whether the Son is *homo-ousios* with the Father, or only *homi-ousios* with Him.

The dominant factors which the outsider notices as characteristic of these Christians are the concern with metaphysics and theology, an intense intellectual scrutiny, an attempt to find precise significance for precise terms. He thinks of the Jewish Christians in the Temple nearly three centuries back, and wonders.

The best cure for his wonderment is the still greater wonder of a journey to Ireland some three centuries later still.

A number of monks are gathered on a rocky coastline. Several are standing in ice-cold water up to their necks, reciting the psalms. Some are standing immobile, praying — with their arms outstretched in the form of a cross. One is receiving six strokes of the lash because he did not answer 'Amen' when the grace was said at the last meal of brown bread and dulse. Others are going off in a small boat in doubtful weather with a box of beautiful manuscripts and not much else to distribute themselves on islands in the Firth of Clyde, calling the astonished inhabitants to give up their worship of nature divinities and seek for joy in a future heavenly kingdom: others are sitting quite alone in dark caves by the seashore, seeking no intercourse with men.

He ascertains from these curious beings that their beautiful manuscripts include versions of the same holy writings that the Greek fathers used. He notices that the Irish use the same formula that he heard being hammered out in Nicea in 325 AD; somewhat to his surprise, because they do not in general seem very interested in theology or very good at metaphysics. They attach great importance to the date on which they celebrate their main festival, Easter; an outsider is most likely to notice their desire for holiness and their heroic austerity in quest of it.

Our spaceman delays his next visit until the 1840s, when he comes to London and finds in Exeter Hall a large and visibly excited assembly hearing speeches about the desirability of promoting Christianity, commerce and civilization in Africa. They are proposing that missionaries armed with Bibles and cotton seeds be sent a distance of four thousand miles to effect the process. They are also proposing a deputation to the British Government about the necessity of putting down the slave trade, raising a subscription to promote the education of black mechanics, agreeing that letters be written, pamphlets and articles published. The meeting has begun with a reading from the same book (in English translation) that the other Christians used, and there have been many other quotations from the book; indeed, a large number of people in the meeting seem to be carrying it. On enquiry, the observer finds that most also accept without question the creed of Nicea. Like the Irish, they also use the word 'holy' quite a lot; but they are aghast at the suggestion that holiness could be connected with standing in cold water, and utterly opposed to the idea of spending life praying in an isolated cave. Whereas the Irish monks were seeking to live on as little as possible, most of this group look remarkably well fed. What impresses the outsider is their activism and the involvement of their religion in all the processes of life and society.

In 1980 he comes to earth again, this time to Lagos, Nigeria. A white-robed group is dancing and chanting through the streets on their way to their church. They are informing the world at large that they are Cherubim and Seraphim; they are inviting people to come and experience the power of God in their services. They claim that God has messages for particular individuals and that His power can be demonstrated in healing. They carry and quote from the same book as the Exeter Hall gentlemen. They say (on being shown the document in a prayer book) that they accept the creed of Nicea, but they display little interest in it: they appear somewhat vague about the relationship of the Divine Son and the Holy Spirit. They are not politically active and the way of life pursued by the Exeter Hall gentlemen is quite foreign to them; they fast like the Irish, but only on fixed occasions and for fixed purposes. The characteristic which springs most readily to the spaceman's mind is their concern with power, as revealed in preaching, healing, and personal vision.

Back in his planetary home, how does our scholar correlate the phenomena he has observed? It is not simply that these five groups of humans, all claiming to be Christians, appear to be concerned about different things; the concerns of one group appear suspect or even repellent to another.

Now is no case has he chosen freakish examples of Christians. He has gone to groups which may, as far as such statements can be permissible at all, be said to reflect representative concerns of Christians of those times and places, and in each case the place is in the Christian heartlands of that period. In AD 37 most Christians were Jews. Not only was Jerusalem the main Christian centre; Jerusalem Christians laid down the norms and standards for other people. By AD 325 few Christians were Jews, the main Christian centres lay in the Eastern Mediterranean and the key language for Christians was Greek. By AD 600, the balance had shifted westward, and the growing edge of Christianity was among the northern and western tribal and semi-tribal peoples - and Ireland was a power centre. In the 1840s Great Britain would certainly be among the outstanding Christian nations, and certainly the one most notably associated with the expansion of the Christian faith. By 1980, the balance had shifted again, southwards; Africa is now the continent most notable for those that profess and call themselves Christians.¹

So will our visitor conclude that there *is* no coherence? That the use of the name Christian by such diverse groups is fortuitous, or at least misleading? Or does he catch among the spheres some trace of Gilbert Murray's remark that representative Christians of the third, thirteenth and twentieth centuries would have less in common than would a Catholic, Methodist and Free-thinker, or even (glancing round the College Common Room and noting the presence of Sir Savapelli Radhakrishnan) "a well-educated Buddhist or Brahmin at the present day".² Is shared religion in the end simply a function of shared culture?

Our spaceman may, however, note that between the five groups he has visited there is a historical connection. It was Christians scattered from Jerusalem who first preached to Greeks and founded that vast Greek edifice he observed in 325; it is in Eastern Christianity that we must seek some of the important features and some of the power of Celtic Christian religion. That Celtic religion played a vital part in the gradual emergence of the religion of Exeter Hall. And the Cherubim and Seraphim now in Lagos are ultimately a result of the very sort of operations which were under discussion at the Exeter Hall meeting.

But besides this historical connection, closer examination reveals that there are other definite signs of continuity. There is, in all the wild profusion of the varying statements of these differing groups, one theme which is as unvarying as the language

which expresses it is various: that the person of Jesus called the Christ has ultimate significance. In the institutional sphere, too, all use the same sacred writings; and all use bread and wine and water in a special way. Still more remarkable is the continuity of consciousness. Each group thinks of itself as having some community with the others, so different in time and place, and despite being so obviously out of sympathy with many of their principal concerns. Still more remarkable, each thinks of itself as in some respect continuous with ancient Israel, even though only the first have any conceivable ethnic reason to do so, and though some of the groups must have found it extremely hard to form any concept of ancient Israel, or any clear idea of what a Jew might be or look like.

Our observer is therefore led to recognize an essential continuity in Christianity: continuity of thought about the final significance of Jesus, continuity of a certain consciousness about history, continuity in the use of the Scriptures, of bread and wine, of water. But he recognizes that these continuities are cloaked with such heavy veils belonging to their environment that Christians of different times and places must often be unrecognizable to others, or indeed even to themselves, as manifestations of a single phenomenon.

The "indigenizing" principle

Church history has always been a battleground for two opposing tendencies; and the reason is that each of the tendencies has its origin in the Gospel itself. On the one hand it is of the essence of the Gospel that God accepts us as we are, on the ground of Christ's work alone, not on the ground of what we have become or are trying to become. But, if He accepts us "as we are" that implies He does not take us as isolated, self-governing units, because we are not. We are conditioned by a particular time and place, by our family and group and society, by "culture" in fact. In Christ God accepts us together with our group relations; with that cultural conditioning that makes us feel at home in one part of human society and less at home in another. But if He takes us with our group relations, then surely it follows that He takes us with our "dis-relations" also; those predispositions, prejudices, suspicions and hostilities, whether justified or not, which mark the group to which we belong. He does not wait to tidy up our ideas any more than He waits to tidy up our behaviour before He accepts us sinners into His family.

The impossibility of separating an individual from his social relationships and thus from his society leads to one unvarying feature in Christian history: the desire to "indigenize", to live as a Christian and yet as a member of one's own society, to make the church (to use the memorable title of a book about Independent churches in Africa) "A place to feel at home".³ The desire to do this is tied up with the very nature of the Gospel; it is

patterned in the Incarnation itself. When God became man, Christ took flesh in a particular family, members of a particular nation, with the tradition of customs associated with that nation. All that was not evil He sanctified. Wherever He is taken by men in any time and place He takes that nationality, that society, that 'culture', and sanctifies all that is capable of sanctification by his presence.

This fact has led to more than one crisis in Christian history, including the first and most important of all. When the elders at Jerusalem in the council of Acts 15 came to their decision that Gentiles could enter Israel without becoming Jews, had they any idea how close the time would be when *most* Christians would be Gentiles? And would they have been so happy with their decision had they realized it? Throughout the early years the Jerusalem Church was in a position to set the standards and to make the decisions, because of its direct connection with the Saviour, and its incomparably greater knowledge of the Scriptures. And when its historic decision opened the door wide for Gentile believers in the Jewish Messiah, there must have been many who assumed that nevertheless Gentile Christians, as they matured, would come to look as much like Jerusalem Christians as was possible for such benighted heathen. At least Acts 21:20 suggests that, while being decently glad of the "mission field" conversions recounted by Paul, they continued to think of Jerusalem as the regulative centre of God's saving work. What were the thoughts of those who fled from Jerusalem as the Roman armies moved in to cast down the Temple? Did they realise that the future of Messiah's proclamation now lay with people who were uncircumcized, defective in their knowledge of Law and Prophets, still confused by hangovers from paganism, and able to eat pork without turning a hair? Yet this — and the fact that there were still many left to speak of Jesus as Messiah — was the direct result of the decision of the Jerusalem Council to allow Gentile converts "a place to feel at home". So also was the acceptance of Paul's emphatic teaching that since God accepts the heathen as they are, circumcision, food avoidances and ritual washings, are not for them. Christ has so made Himself at home in Corinthian society that a pagan is consecrated through his or her Christian marriage partner (1 Cor. 7:14). No group of Christians has therefore any right to impose in the name of Christ upon another group of Christians a set of assumptions about life determined by another time and place.

The fact, then, that "if any man is in Christ he is a new creation" does not mean that he starts or continues his life in a vacuum, or that his mind is a blank table. It has been formed by his own culture and history, and since God has accepted him as he is, his Christian mind will continue to be influenced by what was in it before. And this is as true for groups as for persons. All churches are culture churches — including our own.

The "pilgrim" principle

But throughout Church history there has been another force in tension with this indigenizing principle, and this also is equally of the Gospel. Not only does God in Christ take people as they are; He takes them in order to transform them into what He wants them to be. Along with the indigenizing principle which makes his faith a place to feel at home, the Christian inherits the pilgrim principle, which whispers to him that he has no abiding city and warns him that to be faithful to Christ will put him out of step with his society; for that society never existed, in East or West, ancient time or modern, which could absorb the word of Christ painlessly into its system. Jesus within Jewish culture, Paul within Hellenistic culture, take it for granted that there will be rubs and frictions — not from the adoption of a new culture, but from the transformation of the mind towards that of Christ.

Just as the indigenizing principle, itself rooted in the Gospel, associates Christians with the *particulars* of their culture and group, the pilgrim principle, in tension with the indigenizing and equally of the Gospel, by associating them with things and people outside the culture and group, is in some respects a *universalizing* factor. The Christian has all the relationships in which he was brought up, and has them sanctified by Christ who is living in them. But he has also an entirely new set of relationships, with other members of the family of faith into which he has come, and whom he must accept, with all their group relations (and 'disrelations') on them, just as God has accepted him with his. Every Christian has dual nationality, and has a loyalty to the faith family which links him to those in interest groups opposed to that to which he belongs by nature.

In addition — as we observed to be the case in all the spaceman's varied groups of representative Christians — the Christian is given an adoptive past. He is linked to the people of God in all generations (like him, members of the faith family), and most strangely of all, to the whole history of Israel, the curious continuity of the race of the faithful from Abraham. By this means, the history of Israel is part of Church history,⁴ and all Christians of whatever nationality, are landed by adoption with several millennia of someone else's history, with a whole set of ideas, concepts and assumptions which do not necessarily square with the rest of their cultural inheritance; and the Church in every land, of whatever race and type of society, has this same adoptive past by which it needs to interpret the fundamentals of the faith. The adoption into Israel becomes a "universalizing" factor, bringing Christians of all cultures and ages together through a common inheritance, lest any of us make the Christian faith such a place to feel at home that no one else can live there; and bringing into everyone's society some sort of outside reference.

The Future of Christian Theology and its cultural Conditioning

In the remainder of this paper I would like to suggest something of the relevance of the tension between the indigenizing and the pilgrim principles for the future of Christian theology.

First, let us recall that within the last century there has been a massive southward shift of the centre of gravity of the Christian world, so that the representative Christian lands now appear to be in Latin America, Sub-Saharan Africa, and other parts of the southern continents. This means that Third World theology is now likely to be the representative Christian theology. On present trends (and I recognize that these may not be permanent) the theology of European Christians, while important for them and their continued existence, may become a matter of specialist interest to historians (rather as the theology of the Syriac Edessence Church is a specialist matter for early church historians of today, not a topic for the ordinary student and general reader, whose eyes are turned to the Greco-Roman world when he studies the history of doctrine). The future general reader of Church history is more likely to be concerned with Latin American and African, and perhaps some Asian, theology. It is perhaps significant that in the last few years we have seen for the first time works of theology composed in the Third World (the works of Latin American theologians of liberation, such as Gutierrez, Segundo and Miguez Bonino) becoming regular reading in the west - not just for missiologists, but for the general theological reader. The fact that particular Third World works of theology appear on the Western market is not, however, a necessary measure of their intrinsic importance. It simply means that publishers think them sufficiently relevant to the West to sell there. Theology is addressed to the setting in which it is produced.

This is perhaps the first important point to remember about theology: that since it springs out of practical situations, it is therefore *occasional* and *local* in character. Since we have mentioned Gutierrez, some words of his may be quoted here. Theology, he says, arises spontaneously and inevitably in the believer, in all who have accepted the gift of the word of God. There is therefore in every believer, and every community of believers, at least a rough outline of a theology. This conviction leads to another: whatever else theology is, it is what Gutierrez calls "critical reflexion on Christian practice in the light of the word".⁵ That is, theology is about testing your actions by Scripture.

In this, of course, we are hearing the typical modern Latin American theologian, who is stung by the fact that it has taken Marxists to point out things that Amos and Isaiah said long ago, while Christians have found good theological reasons to justify the position of Jeroboam, Manasseh and Dives; and is nagged by the remark of Bernanos that "God does not choose the same men to

keep his word as to fulfil it". But it is likely to be the way of things also in Africa. The domestic tasks of Third World theology are going to be so basic, so vital, that there will be little time for the barren, sterile time-wasting by-paths into which so much Western theology and theological research has gone in recent years. Theology in the Third World will be, as theology at all creative times has always been, about *doing* things, about things that deeply affect the lives of numbers of people. We see something of this already in South African Black Theology, which is literally about life and death matters (As one South African Black Theologian put it to me "Black Theology is about how to stay Christian when you're a Black in South Africa, and you're hanging on by the skin of your teeth.") There is no need to go back to wars of religion when men shed blood for their theologies: but at least there is something to be said for having a theology about things which are worth shedding blood for. And that, Third World Theology is likely to be.

Because of this relation of theology to action, theology arises out of situations that actually happen, not from broad general principles. Even the Greek Church, with centuries of intellectual and rhetorical tradition took almost 200 years to produce a book of theology written for its own sake, Origen's *De Principiis*. In those two centuries innumerable theological books were written, but not for the sake of producing theologies. The theology was for a purpose: to *explain* the faith to outsiders, or to point out where the writer thought someone else had misrepresented what Christians meant.

It is therefore important, when thinking of African theology, to remember that it will act on an African agenda. It is useless for us to determine what we think an African theology ought to be doing: it will concern itself with questions that worry Africans, and will leave blandly alone all sorts of questions which we think absolutely vital. We all do the same. How many Christians belonging to churches which accept the Chalcedonian Definition of the Faith could explain with any conviction to an intelligent non-Christian why it is important not to be a Nestorian or a Monophysite? Yet once men not only excommunicated each other, they shed their own and other's blood to get the right answer on that question. The things which we think are vital points of principle will seem as far away and negligible to African theologians as those theological prize fights among the Egyptian monks now seem to us. Conversely the things that concern African theologians may seem to us at best peripheral. Remembering the emergence of theology at a popular level, it is noteworthy how African Independent churches sometimes seem to pick on a point which strikes us by its oddity or irrelevance, like rules about worship during the menstrual period. But this is usually because the topic, or the sort of topic, is a major one for certain African Christians, just as it apparently was for the old Hebrews and it needs an answer, and an answer

related to Christ. There often turns out to be a sort of coherence in the way in which these churches deal with it, linking Scripture, old traditions and the Church as the new Levitical community — and giving an answer to something that had been worrying people. In short, it is safe for a European to make only one prediction about the valid, authentic African Biblical theology we all talk about: that it is likely either to puzzle us or to disturb us.

But is not the sourcebook of all valid theology the canonical Scriptures? Yes, and in that, as the spaceman found, lies the continuity of the Christian faith. But, as he also found, the Scriptures are read with different eyes by people in different times and places; and in practice, each age and community makes its own selection of the Scriptures, giving prominence to those which seem to speak most clearly to the community's time and place and leaving aside others which do not appear to yield up their gold so readily. How many of us, while firm as a rock as to its canonicity, seriously look to the book of Leviticus for sustenance? Yet many an African Independent church has found it abundantly relevant. (Interestingly, Samuel Ajayi Crowther, the great 19th century Yoruba missionary bishop, thought it should be among the first books of the Bible to be translated).

The indigenizing principle ensures that each community recognizes in Scripture that God is speaking to its own situation. But it also means that we all approach Scripture wearing cultural blinkers, with assumptions determined by our time and place. It astonishes us when we read second century Christian writers who all venerated Paul, and to whom we owe the preservation of his writings, that they never seem to understand what we are sure he means by justification by faith. It is perhaps only in our own day, when we do not read Plato so much, that Western Christians have begun to believe that the resurrection of the body is not the immortality of the soul, or to recognize the solidly material content of Biblical salvation. Africans will have their cultural blinkers, too, which will prevent, or at least render it difficult for them to see some things. But they will doubtless be different things from those hidden in our own blind spots, so they should be able to see some things much better than we do.

That wise old owl, Henry Venn of the Church Missionary Society, reflecting on the Great Commission in 1868, argued that the fullness of the Church would only come with the fullness of the national manifestations of different national churches:

Inasmuch as all native churches grow up into the fullness of the stature of Christ, distinctions and defects will vanish. ... But it may be doubted whether, to the last, the Church of Christ will not exhibit marked national characteristics which, in the overruling grace of God, will tend to its perfection and glory.⁶

Perhaps it is not only that different ages and nations see different things in Scripture — it is that they *need* to see different things.

The present African theological debate

The major theological debate in independent Africa⁷ just now — Item 1 on the African theological agenda — would appear to be the nature of the African past. Almost every major work by an African scholar in the field of religions — Harry Sawyerr,⁸ Bolaji Idowu,⁹ J.S. Mbiti,¹⁰ Vincent Mulago¹¹ — is in some way dealing with it. Now each of the authors named was trained in theology on a western model; but each has moved into an area for which no Western syllabus prepared him, for each has been forced to study and lecture on African traditional religion — and each has found himself writing on it. It seems to me, however, that they all approach this topic, not as historians of religions do, nor as anthropologists do. They are still, in fact, Christian theologians. All are wrestling with a theological question, the prime one on the African Christian's intellectual agenda: who am I? What is my relation as an African Christian to Africa's past?

Thus, when Idowu concludes with such passion that the oríṣas are only manifestations of Olódùmare, and that it is a Western misrepresentation to call Yoruba religion polytheistic, the urgency in his voice arises from the fact that he is not making a clinical observation of the sort one might make about Babylonian religion: he is handling dynamite, his own past, his people's present. One can see why a non-Christian African writer like Obot p'Bitek, who glories in pre-Christian Africa, accuses John Mbiti and others so bitterly of continuing the Western missionary misrepresentation of the past.¹² It is as though he were saying "They are taking from us our own decent paganism, and plastering it over with interpretations from alien sources." Here speaks the authentic voice of Celsus.

The mention of Celsus reminds us perhaps that African Christians are not the first people to have a religious identity crisis. Gentile Christians had precisely the same issue to face — an issue that never faced the Jewish missionaries, Paul, Peter, Barnabas. They knew who they were ("circumcized the eighth day, of the tribe of Benjamin . . ."), just as Western missionaries for more than 150 confident years knew who *they* were. It is our past which tells us who we are; without our past we are lost. The man with amnesia is lost, unsure of relationships, incapable of crucial decisions, precisely because all the time he has amnesia he is without his past. Only when his memory returns, when he is sure of his past, is he able to relate confidently to his wife, his parents, or know his place in a society.

Early Gentile Christianity went through a period of amnesia. It was not so critical for first generation converts: they responded to a clear choice, turned from idols to serve the living God, accepted the assurance that they had been grafted into Israel. It was the second and third generation of Christians who felt the strain more. What was their relation to the Greek past? Some of them (some indeed in the first generation, as the New Testament indicates) solved the problem by pretending their Greek past did not exist, by pretending they were Jews, adopting Jewish customs, even to circumcision. Paul saw this coming and roundly condemned it. You are *not* Jews, he argues in Romans 9-11; you *are* Israel, but grafted into it. And, defying all the realities of horticulture, he talks about a wild plant being grafted into a cultivated one. But one thing he is saying is that Gentile Christianity is part of the *wild* olive. It is different in character from the plant into which it is grafted. Such is the necessity of the indigenizing principle.

Later Gentile Christians, by then the majority in the Church, and in no danger of confusing themselves with Jews, had a major problem. Yes, they were grafted into Israel. The sacred history of Israel was part of their history. Yes, the idolatry and immorality of their own society, past and present, must have nothing to do with them. But what was God doing in the Greek world all those centuries while He was revealing himself in judgment and mercy to Israel? Not all the Greek past was graven images and temple prostitution. What of those who testified for righteousness — and even died for it? Had God nothing to do with their righteousness? What of those who taught things that are true — that are according to reason, *logos* opposed to the Great Lies taught and practised by others? Had their *logos* nothing to do with The Logos, the light that lighteth every man coming into the world? Is there any truth which is not God's truth? Was God not active in the Greek past, not just the Jewish? So Justin Martyr and Clement of Alexandria came up with their own solutions, that there were Christians before Christ, that philosophy was — and is — the schoolmaster to bring the Greeks to Christ, just as was the Law for Jews.

This is no place to renew the old debate about continuity or dis-continuity of Christianity with pre-Christian religion, nor to discuss the theology of Justin and Clement, nor to consider the correctness of Idowu and Mbiti. My point is simply that the two latter are wrestling with essentially the same problem as the two former, and that it seems to be the most urgent problem facing African Christians today, on their agenda. Until it is thought through, amnesia could make African Christianity tentative and unsure of its relationships, and unable to recognize important tasks. More than one answer may emerge; the early centuries, after all, saw the answer of Tertullian as well as of Clement. And there may be little that outsiders can do to assist. Once

again Paul saw what was coming. "Is He not," he asks his Jewish interlocutor, and on the most thoroughly Jewish grounds, "the God of the Jews also?" (Rom 3:29f)

The debate will certainly reflect the continuing tension between the indigenizing and the pilgrim principles of the Gospel. Paul, Justin and Clement all knew people who followed one without the other. Just as there were "pilgrims" who sought to follow, or to impose upon others the modes of thought and life, concerns and preconceptions which belonged to someone else, so there were Greek educated "indigenizers" who sought to eliminate what they considered "barbarian" elements from Christianity such as the Resurrection and the Last Judgment. But these things were part of a framework which ultimately derived from the Christian faith, and thus they played down, or ignored, or explicitly rejected, the Old Testament, the Christian adoptive past. Perhaps the most important thing to remember about the opponents of these Gnostics is that they were just as Greek as the Gnostics themselves, with many of the same instincts and difficulties; but they knew instinctively that they must hold to their adoptive past, and in doing so saved the Scriptures for the Church. Perhaps the real test of theological authenticity is the capacity to incorporate the history of Israel and God's people and to treat it as one's own.

When the Scriptures are read in some enclosed Zulu Zion, the hearers may catch the voice of God speaking out of a different Zion, and speaking to the whole world. When a comfortable bourgeois congregation meets in some Western suburbia, they almost alone of all the comfortable bourgeois of the suburbs are regularly exposed to the reading of a non-bourgeois book questioning fundamental assumptions of their society. But since none of us can read the Scriptures without cultural blinkers of some sort, the great advantage, the crowning excitement which our own era of Church history has over all others is the possibility that we may be able to read them together. Never before has the Church looked so much like the great multitude whom no man can number out of every nation and tribe and people and tongue. Never before, therefore, has there been so much potentiality for mutual enrichment and self-criticism, as God causes yet more light and truth to break forth from His word.¹³

NOTES

- 1 Cf. D.B. Barrett, 'A.D. 2000: 350 million Christians in Africa', *International Review of Mission* 59(1970), 39-54; A.F. Walls, 'Towards understanding Africa's place in Christian history', in J.S. Pobee (ed.), *Religion in a pluralistic society: essays presented to Professor C.G. Baëta*, Leiden 1976, p. 180-189.

- 2 Gilbert Murray, *Five stages of Greek religion*, 1935, p. 174.
- 3 By F.B. Welbourn and B.A. Ogot, 1967.
- 4 "... the first fact of the Church [is] that we are Gentiles who worship the God of the Jews" — with *their* psalms, in Gentile languages but their concepts. P. van Buren, 'The mystery and salvation and prayer', *Ecumenical Institute for Advanced Theological Studies Yearbook*, Jerusalem 1977-78, 37-52.
- 5 G. Gutierrez, *A theology of liberation*, Eng. trs. Maryknoll and London 1973, 6-15.
- 6 Instructions of the Committee of the Church Missionary Society to departing missionaries 30 June 1868. (Reproduced in W. Knight, *The missionary secretariat of Henry Venn*, 1880, 284).
- 7 "Independent Africa" is here distinguished from South Africa, where different conditions have produced different priorities and a different debate.
- 8 e.g. *God — Ancestor or Creator?* 1970.
- 9 Cf. *Olódūmare. God in Yoruba belief*, 1962; *African traditional religion: a definition*, 1973.
- 10 *New Testament eschatology in an African background*, Oxford 1971; *African religious and philosophy*, 1969; *Concepts of God in Africa*, 1970.
- 11 Cf. his 'Christianisme et culture africaine', in C.G. Baëta (ed.), *Christianity in Tropical Africa*, 1968, pp. 308-328.
- 12 Okot p'Bitek, *African religions in Western scholarship*, Kampala 1971.
- 13 I am grateful for permission to quote here some sentences from my paper "African and Christian identity" which appeared in the Mennonite Journal *Mission Focus* and was reprinted in W.R. Shenk (ed.) *Mission focus; current issues*, Scottsdale, Penna. 1980.

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A.R. MILLARD

ARCHAEOLOGY AND ANCIENT ISRAEL

In this paper, based upon his lecture given at the VI Archaeology Symposium on 16 May, 1981, Dr Millard discusses finds at Ebla, the evidence for the presence of Israel in Canaan, King Solomon's use of gold and the use of writing in ancient Israel.

Anyone who reads a book written in the past can expect some help in understanding it from study of the time when it was written, help that may come from other written works or from material remains of the age. When the book in question belongs to a particularly remote or little known age, the study of its context may also indicate how good a representative of its time it is, and how trustworthy its statements may be. That is to say, something may be revealed about its authenticity and reliability. With the Old Testament help of this sort can come from archaeological discoveries in Palestine and the neighbouring lands, and from written documents of the Old Testament period. The purpose of this paper is to consider four areas of discovery that relate to the history of Israel. Before turning to them, it is important to comment on how difficult the archaeologist may find the identification of the remains he unearths as the product of a specific race or nation. Often cultural boundaries differ considerably from political frontiers, so the claim that a certain type of pot or tool or building is Israelite, or Moabite, or whatever may be, depends on knowledge derived from written sources that a people so named lived in the area where the object was found at the time it was in use.

Ebla

The most outstanding archaeological discovery in the Near East made during the 1970's was the palace of Ebla and its archive. Excavations at the site, now Tell Mardikh about fifty-five kilometres south-west of Aleppo, began in 1964. Not until 1968 did the excavators unearth any written texts, although making valuable archaeological discoveries. In that year they found part of a statue dedicated to a goddess of Ebla. By itself this did not prove the site was Ebla, for a king of Ebla could set up a statue in any city of his realm. The proof came in 1974 and 1975 with the recovery of several thousand cuneiform tablets of a sort found

in an administrative centre. Their references to Ebla, its rulers, and its affairs, make the identity of the place sure.¹

The tablets lay in the ruins of a fine brick-built palace that had been burnt severely. In the rooms lay scattered objects of precious metal and stone, and the charred remains of richly carved wooden furniture. By their style and decoration these pieces showed very strong influences from Babylonia affecting local craftsmen. The style of these luxury goods and of the local pottery belongs to the third millennium BC, specifically to the period about 2400-2200 BC (that is, shortly after the age of the famous 'Royal Cemetery' of Ur). Two kings who ruled in Babylonia at that time claim to have conquered Ebla: the famous Sargon of Akkad (c. 2334-2279 BC), and his grandson Naram-Sin (c. 2254-2218 BC). Which one may have sacked the palace is not certain, currently Naram-Sin is preferred.

Thus the archives belong to the twenty-third century BC well before the life of Abraham in biblical history. The publicity surrounding their discovery has asserted various links with the Patriarchs which demand attention. Before we can comment on them, we should observe the nature of the documents. The clay tablets were inscribed with a form of the cuneiform script. This writing was at home in Babylonia where scribes had used it for writing the Sumerian language from the fourth millennium BC. At an early stage in its history it was adopted for writing the quite different Semitic language, the result being rather inadequate because the languages did not have identical phonetic stocks (e.g. Sumerian did not distinguish 'q' from 'k' as Semitic languages do, or possess a 'y'). The system spread widely, travelling up the course of the Euphrates to Syria by 3000 BC. In the tablets from Ebla is evidence of continuing Babylonian influence. While there may be many local peculiarities, the scribal tradition is clearly Babylonian. Among the tablets are exercises and reference books which are almost duplicates of texts unearthed in Babylonia proper. Sumerian was an academic study for these scribes, essential to their understanding of the writing system. Most of the tablets are written with liberal use of Sumerian word-signs, but with sufficient words intervening in Semitic to imply the texts were read in a Semitic language. (So in English we write a Latin abbreviation lb (*libra*) with the English plural marker s for 'pounds'). The nature of this Semitic language is disputed. The first scholar to study the Ebla tablets, then epigraphist to the expedition, saw strong links with West Semitic 'Canaanite' languages, such as Ugaritic, ancestral in some way to biblical Hebrew. One scholar has developed this view, attempting to clarify Old Testament passages in the light of texts from Ebla. As other Assyriologists have worked on the tablets, the impression has grown that the Semitic language they present is more closely akin to Akkadian, the Semitic language of northern Babylonia, but

much more systematic study is necessary before any conclusion is reached. If this second opinion is established, the Semitic language of the tablets may also turn out to be an academic tongue. It may have been the language of written documents but not of ordinary speech, because the names of some men contained in the texts do seem to include West Semitic elements that may reflect popular speech. (They could also point to a different population group.)

Among the tablets are scribal exercises, as noted, letters, at least one treaty and some pieces of literature, but the majority are administrative records. They tell of the kingdom's business, trade with neighbouring cities, incoming revenue and expenditure, and legal transactions. Only when fully edited can their contribution to knowledge be properly assessed. Insofar as these documents are about five hundred years older than any others known from Syria, their importance for the country's history is enormous.

Ebla lies south-west of Aleppo, a long way north of ancient Israel. Nothing known at present suggests there was any direct link between the two areas. In the initial announcements of the archive's discovery, names of Palestinian cities such as Megiddo and Lachish were said to have been identified. Later came reports of Sodom and Gomorrah and the associated cities of Genesis 14. Further study disposes of these proposals. Deepening knowledge of the scribes' practices and the phonetic equivalences between the texts of Ebla and other ancient Semitic names makes clear these were ill-founded claims. The geographical horizon of the Ebla archive probably extends further east and west than southwards, linking the route along the Euphrates across to the Mediterranean port of Ugarit (modern Ras Shamrah).

With personal names some common ground is more likely. Ancient Semitic names have many similarities wherever they were current. Recovery of records mentioning an Ishmael or a Daniel has not led to identification of those men with the Old Testament characters, they merely exemplify the common nature of the names. The same holds for names at Ebla. Texts name one of the kings of the city Ibrum who has been equated with Abraham's ancestor Eber (Gen. 11:14f.). Nothing links Eber with Ebla, nor are other names in Abraham's family tree found there. The only connection is a possible identity in name.

Some personal names at Ebla are declared to attest the worship there of the God of Israel, anglicized as Jehovah. Beside a name Mika-il appears Mika-ya, just as Hebrew has Michael and Micaiah, the common noun *il/el*, 'god', alternating with the divine name. Other, indubitable, divine names occur in this position, so the *-ya* here at Ebla could be a divine name. On the other hand, there are a number of arguments against the identification, and they are

sufficiently strong to discredit it. The major one is uncertainty over the syllabic value of the sign read *-ya* which may be *ni*, or *i* as well as *ia*. Even if it is to be read *-ya*, this may not be a divine name but a common short ending like *-y* in Johnny, Bobby in English. No god name *Ya* appears in other contexts at Ebla, although numerous deities are listed.²

If the publicized claims for Ebla's relationship with the Bible are to be discarded, as shown here, what value have the discoveries for Old Testament study? On the linguistic side it is too early to say, but ultimately there will be a major contribution to the early history of the Semitic languages in general, and that may help in understanding the history of Hebrew and Aramaic. In history and culture the overall picture of the 'biblical world' is enlarged. Noteworthy is the free use of writing as a tool of administration, commerce, and diplomacy within the court (no excavation has been done in other buildings of the date at Ebla yet). As work proceeds details of custom and society may emerge that show closer similarities to those of the Old Testament, stressing its ancient context.

After the great palace was destroyed, Ebla continued to be a city of some standing. Early in the second millennium BC its rulers built new fortifications, city-gates, a palace, and temples. The gates and temples are remarkable for correspondences with others of the same date in Palestine, evidence of a common basic culture among the aristocracy of the Middle Bronze Age, the era when the Patriarchs moved through the Levant, according to many historians. Richly furnished tombs have yielded fine gold jewellery illustrating various textual references, including that of the nose-ring with which Eliezer betrothed Rebekah to Isaac (Gen. 24:22).³ The three-room temple plan may be a fore-runner to the temple of Solomon, the proportions, however, being different. Here, again Ebla provides back-ground material for the action of the biblical stories, and emphasizes the sophisticated levels of urban civilization that had been reached before Israel became a nation.

Evidence for Israel in Canaan

The traditions of Israel insist that the nation was devoted to the worship of one God, her God, Jehovah. All trace of the religious ideas and practices of Canaan's earlier inhabitants was to be eradicated as the Israelites occupied their promised land: "Break down their altars, smash their sacred stones, cut down their Asherah poles and burn their idols in the fire" (Dt. 7:15). These directions refer to various concrete elements of Canaanite cults, so the reader can justifiably ask if any examples of them have been found. To give a precise answer, one obstacle has to be overcome, the identification of a physical object with something named in the text. For example, throughout the Holy Land the visitor sees places which

are alleged to be locations mentioned in the Bible. Yet it is impossible to be certain a particular well is Jacob's, or a house is Peter's. The problem of specific identities extends to objects also: how may one type of altar be distinguished, or how may an object made for religious use be separated from one with a domestic purpose?

Despite these problems, several Canaanite shrines and their furnishings have been unearthed and identified. Excavations at Hazor have supplied two good specimens.⁴ In the larger temple, a tri-partite shrine, lay a stone offering table, various stone-vessels, and an incense altar.

The second shrine found at Hazor was smaller, a single room set into the earthen rampart surrounding the city. Here was a stone statue of a seated male, a stone lion, a flat stone slab perhaps for offerings, and a group of smooth stone slabs set up on end as stelae. There can be little doubt that these stones at Hazor, which were in use in the thirteenth century BC, were the 'pillars' (*massēboth*) of Old Testament texts which the Israelites were to destroy. One of the Hazor pillars is carved with two hands raised to a crescent and disk, possibly moon and sun symbols. Pillars have been found in various other Canaanite sanctuaries, most notably at Byblos on the coast of Lebanon. In some cases a coat of plaster may have covered the stones and carried painted symbols or writing.

The Hazor shrines and others in Palestine were destroyed towards the end of the Late Bronze Age (c.1300-1150 BC), and not rebuilt. In fact, not one of all the sacred sites of the Late Bronze Age found in ancient Israelite territory so far continued in the same function for long into the Iron Age, the era of Israel's occupancy. This is notable because religious customs are among the most tenacious. Even when religions change, the same sites may remain sacred. Thus the Great Umayyad Mosque at Damascus occupies the site of a Christian cathedral, and that was built within a Roman temple, parts of which are still visible. Undoubtedly, the Roman temple replaced an older one, perhaps a successor of that house of Rimmon where Naaman's master worshipped (2 Kings 5:18). In Palestine, therefore, there is a marked break in the continuity of sacred sites from the Late Bronze Age to the Iron Age. A total change in religious activities is the only explanation. That the change was the result of an extensive change in population is a plausible deduction, although a large scale conversion of an existing population to a new religion is also possible. In either case, a change of religious practices is established. Before concluding that this is evidence for the Israelite settlement of Canaan, a warning should be given. Very few sites in the adjacent lands have yielded a continuous sequence of occupation for the Late Bronze and Early Iron Ages. As the Israelites were taking control

of Palestine, so the Arameans were setting up their tribal states in Syria. They may have slighted existing cult-centres there, they may have continued them, at present we do not know.

Where the Canaanites continued to live, as the Phoenicians, respect for the old shrines did not cease (Byblos on the Phoenician coast and Kition in Cyprus are the best examples). Whether the abandonment of Late Bronze Age shrines was peculiar to Israel or not, the archaeological evidence does seem to accord with the written in a striking way. The ancient text offers the precision the physical remains cannot supply, it was the Israelites who smashed the Canaanite shrines and submerged their religion.⁵

Interestingly, a few Late Bronze Age shrines lingered into the Iron Age, most notable is one at Beth-Shan, the town where Saul's body was displayed. The Old Testament does not hide the fact that some Canaanites continued to live with the Israelites who adopted some of their ways of worship (cf. Gideon's father). The majority of Canaan's urban shrines at least were destroyed.

King Solomon's use of Gold

The temples of Canaan can teach a little about the Temple of Solomon. Its three-room plan is basically the same as the plans of other temples in the Levant, for example at Hazor and Ebla.⁶ Of the Temple itself no trace is known: only the description of 1 Kings 6 and related passages remain to tell of it. In these accounts more is said about the inside of the building than about its external appearance. Put beside information available from the ancient world, they permit a plausible reconstruction to be made. The walls were built of cut stone, perhaps in a style of ashlar masonry that recent study suggest may have originated in Israel in the tenth century BC.⁷ However finely squared the stones, those entering the building would not see them, for the interior was panelled with cedar wood. Naturally the woodwork has decayed, yet the carving that decorated it can be suggested from patterns cut in more durable metal, stone, and ivory by other ancient craftsmen. The palm-tree, flower, and fruit (if that is the meaning of *qel'at'im*) were all in the repertoire of Phoenician artists. Over the cedar-wood, Kings relates, Solomon set gold. How this was done commentators cannot agree. Some allow that the furnishings may have been gilded but not the whole interior, or that details of the carving were picked out with gold, while one has supposed the gold was sprayed on to the walls by means undefined. None of these views is satisfactory in the light of ancient evidence and the biblical text. The first does not treat the text seriously, simply dismissing its claim. Later passages in Kings speak against the second, for they tell of such goldwork being removed by or for foreign conquerors (1 Ki. 14:26; 18:16) while 2 Chronicles 3:9 mentions golden nails in a context which may imply they held gold in position.

As for the idea of spraying the gold, no trace of such a technique is to be seen in the ancient world. The stumbling-block in reading about Solomon's lavish building and interior decorating projects lies in the incredulity of the modern mind! Faced with the biblical text alone, the reader may be forgiven for treating the narrative as part fantasy on the level of the Arabian Nights, or at best legendary exaggeration. Throughout this century, however, details have accumulated about other ancient kings and the temples they built. Solomon's Temple is not an isolated example. Assyrian and Babylonian kings boast of shrines they built and how they plated their walls with gold 'like plaster', so that they 'shone like the sun'. Their buildings do not survive, only descriptions, as for Solomon's Temple, with less detail. From Egypt, renowned in antiquity for her wealth in gold, there are similar descriptions. One case is of especial value because much of the structure still stands. At Karnak, Tutmosis II erected a great temple, for the Sacred Boat of the god Amun, about 1450 BC. The king boasts of the treasure he lavished on the temple, plating its columns with gold. Some of the pillars still stand, carved like stems of papyrus reed. In the stonework are narrow slits which have no architectural or decorative function. A French Egyptologist has probably found their correct explanation: they were cut to hold the edges of gold sheets hammered over the surface of the stone and folded round to keep in position. Small wedges or battens may have kept the sheets tight. These pillars are 3.24 metres (10½ feet) high, and there were twelve of them. In another hall stood fourteen others, towering 16.25 metres (53 feet) above the ground. Gold sheathed these, too, so that the visitor would look down a hall of golden columns. Carved stone slabs at doorways were covered with gold, the carving beaten in the metal. None of this precious decoration exists today, but on some of the stones can still be seen the rows of holes drilled to take the nails that held the gold in place.

Here, without direct contact between the Old Testament, ancient Israel, and the texts and objects from neighbouring lands, one of the most famous achievements of the Israelite monarchy becomes more intelligible and more credible. The biblical claims for the existence of a fine Temple in Jerusalem founded in the tenth century BC, adorned with gold, is beyond external proof. On one hand, the possibility that the account is a fabrication from a much later date cannot be completely disallowed. On the other hand, the ancient evidence shows the account is plausible, and is in keeping with the practices of the age, and, unless a remarkable discovery is made in Jerusalem, that is as near to the facts of the matter as we can come.⁸

Writing in Ancient Israel

The fourth field of discovery to be noticed is that of ancient Hebrew documents. When the Israelites settled in the territory of

Canaan they occupied towns where alphabetic writing had been current for several centuries. Egyptian scribal practices had influenced the choice of writing material, papyrus. Unless conditions are very unusual, as in the Egyptian desert or the Dead Sea caves, buried or discarded papyrus perishes, so we are deprived of any ancient Hebrew writing on a large scale. This means no books survive, nor any legal or administrative records of length or importance. Those that are available are short messages, notes, and accounts scribbled on potsherds, the scrap-paper of ancient ink-using scribes. To date about 250 have been recovered, many illegible. There are major groups from the Israelite royal palace at Samaria (c. 750 BC 102 pieces), from the gateway and elsewhere at Lachish in Judah (c. 587 BC; 22 pieces), and from the fort at Arad near the southern end of the Dead Sea (8th and 7th centuries BC; 88 pieces). Smaller numbers or single pieces have been found at many other towns throughout Israel and Judah. There are also a number of similar records scratched on potsherds. The earliest of these is one which, if it is actually Hebrew, may be a school boy's exercise. It is a curious series of letters of the alphabet which was unearthed at Isbet Sarteh, near Aphek, dated about 1100 BC. Another, of the 8th century, has become well-known for its reference to 'gold of Ophir'. Scattered as widely as the ostraca are pieces of pottery vessels on which personal names are scratched, proclaiming "X owns this". Occasionally names of dead persons were scratched or chalked on the walls of tombs, and one list of men was painted on the wall of a cave near the Dead Sea.

Such inscriptions, lying in the ruins of major towns and of minor ones, of local military garrisons, and of frontier posts attest a wide knowledge and use of writing. The names on pots and pans surely imply their owners could distinguish one name from another.

More carefully made inscriptions, prepared for display, or as permanent monuments, are very rare. There are a few from ostentatious tombs in Siloam, the famous Siloam Tunnel Inscription, fragments on stone blocks from Samaria and Jerusalem, and another on an ivory plaque taken as booty to Assyria.

Two kinds of document show writing in the service of authority. Numerous stone weights of the 7th century BC, found in Judah, carry words or signs denominating them as multiples or fractions of the shekel. These point to a measure of control or convention in trade practices during the last century of Judah's existence. Control also appears in the hundreds of examples of jar handles of the same period, each impressed with a stamp bearing the word 'royal' (*lammelech*). Beneath the word each stamp has a scarab beetle or another device, and the name of one of four towns, Hebron, Memshat, Sokoh, or Ziph. Explanations of these marks vary; my preference is for their presence as a guarantee of the jars' capacity.

The jar handle stamps introduce the final category in this summary of ancient Hebrew written documents, personal seals. Scores of small stones, polished and cut with their owners' names in Hebrew letters, have entered public and private collections through the past hundred years. Definite Hebrew names are obvious when they contain the name of the God of Israel as an element, as in Jehonathan. Neighbouring peoples had similar names, with their own gods in the corresponding position, such as Phoenician Ba'al-yaton or Moabite Chemosh-natan. Names familiar from the Old Testament occur, others enlarge our knowledge of the Hebrew onomasticon, joining newly known names from some of the ostraca. These names stress the place of the national God as supreme, even if, as the Old Testament prophets and a few inscriptions make clear, some ancient Israelites worshipped Asherah as his consort. (The clearest evidence for Asherah is an inscription painted on a jar during the eighth century BC. The jar was found in a small ruined fort, now called Kuntillet Ajrud, 50 km south of Kadesh-barnea.) No ancient Hebrew names with Asherah as an element have been identified.

The seals vary in quality from the magnificent one engraved with a lion for Shema, an officer of Jeroboam II of Israel (c.782-753 BC) to crudely incised ones that were, presumably, for less well-to-do citizens. Apart from a few men titled 'son of the king' or 'servant of the king', the rank of most seal owners is unknown. We can assume they were people holding military or administrative office, or land-owners, or businessmen. A small number of seals belonged to women, often described as 'daughter' of 'wife' of a man. Presumably these were women of substance, like Abigail.

These seals contribute to our appreciation of writing in ancient Israel in another way. The majority are small, one or two centimetres in length, with no decoration except the tiny engraved letters. Impressed on clay to seal packages or authenticate documents they would demand familiarity with letters if they were to be recognised. Their impressive number, currently between two and three hundred, is testimony to a wide distribution of people who could read in ancient Israel. Taken with the references to writing in the Old Testament and the other inscriptions mentioned they give powerful testimony to a greater use of writing in ancient Israel than scholars have usually supposed. With writing readily available, it would be surprising to learn that the words of the prophets were transmitted orally alone for decades or generations. There are implications here for the accuracy and reliability of transmission which deserve further study.⁹

Through the examples presented here we see archaeology giving background information about the world of the Old Testament and its culture. Ebla reveals the high levels reached in a Syrian city before and during the patriarchal era. A range of discoveries about shrines in Late Bronze Age Canaan apparently witnesses to a

major religious change at the end of that epoch, the time when many scholars believe the Israelites occupied their Promised Land. With King Solomon's gold, an inquiry into ancient practices enable us to treat as plausible a biblical account that has been widely discredited. Finally, ancient Hebrew inscriptions give details about personal names, society, and administration, reveal at first-hand what early Hebrew writing was like, and allow a re-assessment of the role of writing in the history of Old Testament books.

Our choice has been deliberate. These are examples of archaeology interacting with the Old Testament, itself an ancient book. They do not prove anything about the Old Testament. They give circumstantial evidence that agrees with the Scriptural text, they provide some of the context for the Old Testament. The books and the material remains need to be studied together, for each can throw light on the other. Sometimes the data may be ambiguous or inadequate, or the textual interpretation wrong. Treated carefully and objectively, archaeology can offer valuable help to the serious reader of the Old Testament.

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ESSAY REVIEW

SOCIAL DARWINISM IN ENGLAND¹

In pre-Darwinian days it was commonly supposed that nature was averse to change. Sea-urchins and monkeys remained sea-urchins and monkeys from age to age. The social order, too, was unchanging. The rich man lived in his castle, the poor man at his gate, both by divine fiat. Their descendants would not change places.

It was Darwin who taught men to look for change: change in life-forms and, by analogy, change in society. Such ideas were not unknown before the Darwinian era, but it was Darwin more than anyone else who gave them credibility and introduced them into the corpus of accepted science.

At the time when Darwin came on the scene there was hot debate about the status of primitive peoples - third worlders, as we might call them today. Many people supposed that long long ago God had taught their remote ancestors how to ensure that their descendants would progress to full civilization. But they had failed to cherish the divine instruction and their peoples had descended to near-animal level. Others regarded primitives as living representatives of what modern man had been once upon a time - man on the bottom rung of the ladder that leads ever upwards to culture, sagacity and Western morals.

Darwin supplied the answer: in his *Descent of Man* he proved (or so it was supposed) that the ladder theory is right. By the sheer magic of his wonderful theory of natural selection he answered not only this question but a dozen others which perplexed our near ancestors. So plausible were his explanations that he turned two if not three whole generations into science worshippers. The new god was so greatly esteemed that it came to be assumed on all sides that a scientific theory must cover all conceivable ground to be worthy of credence (p.11) and that every belief that man holds dear must be science-based.

By his truly scientific theory Mr Darwin explained, in one stroke, all the wonderful intricacies of anatomy of the animal frame: no longer was it possible to argue, with Paley, that explanation was impossible without divine fiat. So far the going was easy, but what about values? Darwin rose to the occasion. "Any animal whatever, endowed with the well-marked social instincts, would inevitably acquire a moral sense or conscience" he said. Likewise altruism was related to usefulness and the aesthetic sense to sexual selection. For many intellectuals at Cambridge, of which W.K. Clifford was the leader, "natural selection was the master key of the universe; we expected it to

solve all riddles and reconcile all contradictions" (p.38).

Of course, the struggle involved in natural selection as a mechanism of progress had some critics - Samuel Butler, Kropotkin, Mivart and others said much to reduce its credibility. But they were but small flies in the ointment. A bigger fly, perhaps, was A.R. Wallace, 'co-discoverer', with Darwin of the principle of natural selection, who had had first hand experiences of savage society. Darwin wanted his savages to be primitive and simple in every conceivable way, but Wallace said that those he knew personally were often highly intelligent, their morality sometimes very high indeed. Another big fly in the Darwinian ointment was connected with the selective value of having a large number of offspring. It seemed obvious enough to English intellectuals that the upper and middle classes in English society were superior to the workers, yet the workers reproduced their kind faster than their 'superiors'. How then could evolution possibly result in the improvement of the race?

Here all kinds of suggestions were made. For instance, was it just possible, perhaps, that intelligence was more selectively advantageous than quick breeding? Hardly! For if so the ancient Greeks, whose intelligence was orders of magnitude greater than that of other men, would long ago have dominated the entire world.

Dr Jones examines the ins and outs of the ensuing controversies in detail and in a most interesting way. In short, the Darwinian path was full of pot holes for the unwary, but somehow, perhaps for lack of a better theory to put in its place, they tended to be overlooked. England became Darwinian and not England only.

It is scarcely to be wondered at that evolutionary doctrine played into the hands of wrong headed and evil men. In Darwin's writings justification could be found for almost any course of action - good, bad or indifferent.

Anthropologists and economists seized on Darwinism in order to apply it to intelligence and morality. The notion of man's equality had been killed by Darwin. It was now clear that mankind's status was hierarchical. The whites were superior because they had evolved the furthest. And among the whites the middle and upper classes. Alfred Marshall, the Cambridge economist, bewailed the fact that the poor were breeding too fast and dreaded the possibility that the spiritless Chinese might overrun the earth instead of the English. As for primitives they remained at the bottom of the scale. The fossils showed that some life forms remained substantially unchanged over great periods of time, while others changed. It would be the same with men. Some inferior races would mature in days to come, but

many would not and were incapable of so doing. Their physical appearance would remain ugly and their intelligence and morality would never rise. These ideas were reflected again and again in the questions set in London University Examinations (p.149f). Meanwhile Imperial expansion was a legitimate expression of biological law.

As applied to civilised man the doctrine of struggle - of all against all - was too much for most Victorians to stomach. It was mollified by Darwin who advanced the view that as civilisation advances, struggle ceases to take the form of physical strife: it becomes cultural and intellectual instead. This idea pleased the liberal democrats most of whom felt that it was of the utmost importance to show that knowledge of science and especially of evolution would awaken in man a sense of morality and social obligation. Liberals claimed that evolution operates by increasing opportunities for choice - they opposed state intervention with tiresome inspectors regulating the hours of work. (p.51) Even child labour was defended on Darwinian grounds.

Liberals were shocked to the core when, in 1884, Herbert Spencer used evolution as an argument for competitive individualism. If the State helped the poor, he said, it could only do so at the cost of social and evolutionary progress. Saleby (1906) argued that the trade unionist who tried to stop one workman working faster than another was acting in fundamental opposition to natural selection.

As for socialism, there were two brands - revolutionary and reformist and both found ample support in Darwinism. Revolutionaries like Marx and Engels supported Darwinism, largely because they reckoned it was anti-theological. Marx himself did not regard the class struggle as an instance of Darwinian struggle. But some revolutionaries *did* take this view. Reformist left-wingers, on the other hand, expected Darwinian principles to operate only slowly, hopefully without bloodshed. The existence of the idle rich was incompatible with evolution, but they ought to be eliminated gradually rather than suddenly. Good laws were needed to make evolution work well, said Ramsay MacDonald. The class war was not biological at all and Marxists did not understand Darwinism.

Right wingers, of course, also found Darwinism to their liking. They were encouraged by Herbert Spencer's interpretation of Darwinism as competitive individualism and ruthless competition in industry was obviously in conformity with biological law.

With near pathetic faith in Darwinism Francis Galton (1822-1911) founded his eugenics movement -- -- "For the good of the race people should be forcibly married to each other by the

police" was how G.K. Chesterton later described it. It seemed obvious to him (Galton) that intellect was the most desirable of all human endowments but that in England evolution was proceeding in reverse (or at least threatening to do so) because the poor were breeding so fast. Obviously it was vital that eugenics should "be introduced into the national conscience like a new religion."

But who could identify those who were the fittest, seeing that Darwin's identification of them with those who produced the largest progeny was so obviously faulty? Good science depended upon measurement - so Galton founded the Biometric Laboratory with Karl Pearson in charge. With warm endorsement of F.J. Gall's phrenology, but still oblivious of the distinction between phenotype and genotype, the laboratory amassed data on every measurement that could be conceived.

[Brain size, of course, was a splendid measure of intelligence and measurements were made with due care after celebrities died. But the practice was short lived: VIPs, fearing lest their too small brains should lead the public into thinking that their intelligence had been over-rated in life, began to insert clauses in their wills to the effect that such measurements should not be made on their brains after death!]

Galton, like Darwin, had his critics. Eugenists assumed that heredity was everything: moralists pointed out that the pick-pocket could hardly help his heredity. For orthodox eugenic Darwinians social welfare and even sentimental private charity were detrimental; poor relief ought to be for healthy persons only who had fallen on their luck. Pearson even argued that child labour was good eugenic policy. (Ch.6)

On the face of it, Darwinism was a dangerous and amoral doctrine. But as it appeared so essential that all educated men should incorporate the results of science into their thinking, it was inevitable that Christians would have something to say. Henry Drummond, drew parallels between what Darwin had 'discovered' about evolution and the workings of the grace of God. Some turned to Kropotkin's *Mutual Aid* as the salient factor in evolution, rather than struggle and competition. Benjamin Kidd (*Social Evolution*, 1894) argued that unreasoning religious belief was of the utmost importance in evolutionary survival - it had led to social efficiency and solidarity in societies. Reason was dangerous since men always rationalised self interest. (Ch.7) Others revived Lamarckism (even Darwin cast a longing eye in that direction) which seemed much more compatible with morals than Darwinism.

In short evolution proved all things to all men. It did not matter what you believed, you could always find support from Darwin. If your politics was right or left, if revolutionary or evolutionary, if you favoured slavery or wished to abolish it, if you wished to annihilate native races of mankind which seemed to you inferior or wished to be kind, generous and understanding towards them, if you wished to regulate who a man should marry, or if you wished the contrary, if you were atheist or Christian, all was grist for the evolutionary mill.

In summary, Darwinism proved amazingly flexible. It could be and was used to support Christianity, atheism, socialism, anarchism, communism, capitalism, imperialism, anti-imperialism, slavery, the abolition of slavery, class distinction, human rights, eugenics, birth control, war, the inequality of races and the superiority of the whites, and even to argue that those in need should be left to fend for themselves. But all these points of view were not equally represented. "Overwhelmingly social Darwinism was a justification for existing social relations and a vehicle for a belief in the inequality of race and class" says Dr Jones (p.158). When to this we consider the effect in other countries of the Darwinism doctrine of progress through struggle (Hitler and others thought his beliefs were fully justified by scientific Darwinism) it is difficult not to conclude that the advent of Darwinism was a human tragedy of the first order.

Dr Jones does not say this: she records the facts and leaves it for the reader to judge on such matters. In a final section she assesses the position today. Social Darwinism is no more - not under that name. But she wisely draws attention to the fact that the same ideas are still being mooted under other names - in neoDarwinism, in sociobiology, in ecology, in evolutionary theories of the origin of ethics (cf. R. Dawkins *The Selfish Gene* 1976) and so on.

Though the price is high, this is a valuable book which will not be outdated. A subject index would have been useful, but there is a name index and bibliography.

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ESSAY REVIEW

WISDOM OF THE EARTH

We are all familiar with the idea of 'the wisdom of the body'. It is an amazing fact that when subjected to unusual harmful conditions, or fed with strange chemicals made by the drug companies, the body more often than not 'knows' what to do. Cold makes us shiver and the shivering makes heat and counteracts the cold. At a great height when oxygen is scarce, breathing becomes deeper and faster so that the body's requirements are met. Most poisonous chemicals are turned into harmless ones and excreted in the urine. We speak of the 'wisdom' of the body. Yet in fact the body has no wisdom. It does not 'think' or 'know' how to deal with the problems that beset it. Yet with rare exceptions it does the right and proper thing. Why? Most Christians would say that this is one of the marvels of creation. God foresaw the problems that would arise and endowed the body with many wonderful mechanisms to ensure its survival. Evolutionists, would claim that the mechanisms have evolved - individuals possessing them in rudimentary form were selected and others died out - but this tells us nothing about how atoms were so arranged that the mechanisms came into existence in the first place. The wonder remains that such mechanisms exist at all.

For the past 15 years or so James Lovelock has been fascinated by the possibility that there may be not only a wisdom of the body but a wisdom of the Earth.¹ He suspects that the Earth 'knows' what to do when things go wrong: that it behaves in many ways like a living being. So he proposes to call the Earth GAIA after the ancient Greek earth goddess. This is not to be taken too seriously, he says - no more seriously than the appellation 'she' when given to a ship by those who sail in her, an appellation used in recognition that the pieces of metal and wood out of which it (she) is made achieve a composite identity as a distinct unit apart from the mere sum of its (her) parts. The alternative, in the case of Earth, might be to use a barbarous acronym such as BUST-H (based on Biocybernetic Universal System Tendency/Homeostasis). It sounds less sophisticated to speak of GAIA!

The point Lovelock stresses is that "The climate and the chemical properties of the Earth now and throughout its history seem always to have been optimal for life. For this to have happened by chance is as unlikely as to survive unscathed a drive blindfold through rush-hour traffic." The idea of GAIA has led, in Lovelock's hands, to some important discoveries, for example the existence and role of methyl iodide and dimethyl sulphide in the atmosphere.

The point which emerges again and again is that over vast geological time many factors which could easily have been subject

to immense variations causing the death of all advanced forms of life have kept within narrow limits. Possible variations in the temperature of the earth, in the UV light it receives from the sun, in its volcanic activity, in its distance from the sun at different phases of its yearly cycle (it has been claimed that a 2% change in the mass of Jupiter would destroy the near circularity of the Earth's orbit), in the composition of its atmosphere, in the acidity of the sea, its salt and other mineral concentrations, in the availability of trace elements necessary for life, and many other factors too, are all immense. Yet over vast periods of time all are kept very nearly within closely confined limits.

Take the saltiness of the sea. The leaching of the rocks by rivers to which must be added the leaching of the ocean bottom by the oceans themselves, would require that over most of geological time the sea should be as saturated with salt as is the Dead Sea today. But the Dead Sea is dead (or virtually so), showing that very few and only very lowly organisms can adapt to such an environment. What has happened to the missing salt in the oceans where the concentration has remained at about 4% over vast stretches of geological time? There must be a natural mechanism for removing the salt. A little is removed by the evaporation of water when bays become cut off from the sea but the main answer seems to lie in the invention of coral which form huge reefs round coasts and volcanic islands. In the end lagoons are land locked, water evaporates and salt is deposited, later to be covered with deposits and finally (more often than not) with ocean again. Today there are vast subocean deposits of salt around the continents and also in such localities as the Mediterranean. Remarkably this happens at such a rate that the salt in the sea is kept at the right level - a rise from 4% to around 6% would be fatal to nearly all forms of life.

Again, how is the acidity of the ocean controlled? Much sulphur is liberated in volcanic activity and easily turns into sulphuric acid in the earth's oxidising atmosphere. Similarly the most stable form of nitrogen in the presence of oxygen is nitrate or nitric acid. Why does not the acidity of the sea increase indefinitely? Apparently because organisms are present which use sulphate to make dimethyl sulphide which is not an acid. There are also bacteria which convert nitrate to nitrogen, or to nitrous oxide which in turn is converted back to nitrogen by UV light. Ammonia is also formed biologically and controls the acidity of rain.

The composition of the atmosphere is kept nearly constant by many control mechanisms, not all of which are understood as yet.

The carbon dioxide concentration is critical. Too much and the green house effect would operate, making the Earth nearly as

hot as Venus and burning up all forms of life: too little and it would become frozen like Mars. Part of the control, as school children know, is effected by plants. They absorb CO_2 producing carbohydrate and free oxygen - which is the main source of the oxygen in the atmosphere. The carbohydrate is burnt up, eaten by mammals or biologically decomposed to regenerate the CO_2 , and so the cycle goes round and round. But it is not as simple as that. If there is too much CO_2 it is removed by silicate rocks (Urey reaction) but this can only happen if *liquid* water is present (which it is not on Venus). And how comes it - seeing that we start with CO_2 as the source of oxygen - that there is more than a trace of oxygen in the air? The answer (Rubey 1951) seems to be that a small proportion (about 0.1% per annum) of the carbon in the biomass is buried in sedimentary rocks, so leaving a little oxygen over.

To be safe for life the oxygen of the air must be mixed with nitrogen (though argon might possibly do instead), otherwise all organic matter would be too combustible. (Cf. the death of the three American astronauts who were burnt to death because the Americans used low pressure oxygen in a test space vehicle.) Given the nitrogen, the oxygen concentration is critical. Below about 14% it would be impossible to light a fire. But in view of the formation of fossil fuel, why does not the oxygen increase without limit? Photosynthesis should increase it by 1% every 12,000 years - a short period indeed geologically speaking. Yet it has altered very little over many hundreds of millions of years. Suppose it did increase, what then? At present it is about 21% which is safe, for fires will not burn if the moisture content of vegetation is over 15%. But if the oxygen content of the air rose by only one or two percent, fires would be widespread and disastrous. At 25% even wet wood will smoulder and burn away - lightning flashes would suffice to consume all the forests and even the Arctic tundra. So how does Gaia manage to arrange that, even over hundreds of millions of years, the oxygen level will never rise perceptibly?

It might be thought that the answer is simple. When the oxygen concentration increases, more of the biomass is burnt, reducing the oxygen and replacing it by CO_2 , so the level of O_2 is maintained. But this scheme will not work because most of the oxygen is formed under water by aquatic plants. If the O_2 rose the biomass on land would burn away, but not that in water: the O_2 would continue to rise but the land would not support life.

More than one wonderful mechanism seems to be involved. Just as the thermostat in the oven turns the current off as soon as the temperature rises slightly above a preordained level, so when the oxygen increases, there must be a mechanism (or more than one) which reduces it once more. Part of the answer lies in the

carbon which is buried in the earth - at first in the form of muddy ooze throughout the world. In these localities bacteria turn some of the carbon into methane which enters the atmosphere, is burnt by lightning flashes (using up oxygen) and reforming carbon dioxide.

But this is not the end of the story. As recently as 1959 it was discovered that the rate of photosynthesis of plants depends on the oxygen concentration of the surrounding air (*photorespiration*) - the more the oxygen the lower the rate. The amount of the fall depends on temperature, CO₂ concentration and the kind of leaf in which photosynthesis is taking place it is always considerable and can be very great indeed (e.g. with a soyabean leaf in 73 ppm CO₂, oxygen formation drops to a third as the oxygen increases from 0 to 20% and ceases altogether at 50% after which it reverses and CO₂ is expelled instead of being absorbed². The biochemistry involved has been unravelled and was recently described by Dr Peter Moore, in the *New Scientist*³. Dr Moore closes his article by saying: "We are left...with a botanical conundrum. Why, having produced the miracle of photosynthesis, did nature then sabotage the system by allowing it to be depressed by oxygen? In fact, photorespiration may be an accident. The mechanism of photosynthesis almost certainly evolved in a primitive atmosphere in which oxygen was scarce ...Current levels of oxygen were probably achieved by Carboniferous times (350 my age) and from then on the photosynthetic green plant would have been embarrassed and rendered less efficient by the by product of the very system that had made them [*sic*] so successful." This affords a good example of the results which follow when teleology is excluded from science. Photorespiration was established long before the need for it arose: it is, of course, a highly efficient mechanism which helps to ensure that the oxygen concentration of the atmosphere does not become too high. There are so many such mechanisms which make for the safety of the world, that Lovelock (who does not touch on theology) is surely right in claiming that they cannot all be ascribed to chance!

Nature possesses many other control systems which operate here on earth but nowhere else in the solar system. Life depends not only on the availability of hydrogen, carbon, nitrogen and oxygen but on many other elements, some of them required only in small traces. As these elements are used up in any given locality, being lost in sedimentary deposits, their concentrations will fall to near zero unless ways are provided for their replenishment. But these elements are so rare, that new supplies cannot be made available for long by the leaching of surface rocks. This reasoning led Lovelock to the discovery that methylating mechanisms are present in oozes: they rescue the iodine (and also sulphur and probably selenium) returning it to the air as methyl iodide. There it is decomposed by sunlight and iodine descends on the land

again in rain. A special difficulty is encountered when we consider phosphorus which again is easily lost: it cannot be returned to the earth in the way that iodine is because it possesses no suitable volatile compounds (phosphines are perhaps too poisonous or energetically difficult to form from phosphates to be employed). Lovelock thinks that the function of migratory fish and birds may be to redistribute phosphorus around the earth.

Other problems arise in connection with the poisons. In the ocean, for example, arsenic concentration is kept at a low level by the presence of vast deposits of ferric oxide which adsorb it strongly.

It is clear that the subject is one with ramifications in a thousand directions. Research on the feedbacks of nature which maintain the environment suitable for life is only now beginning. In days to come new wonders will unfold.

As with the body we may see in Gaia evidence of the wonderful planning of God. He "formed the earth and made it... he created it not in vain, he formed it to be inhabited" (Is. 45:18). He did this before ever man came on the scene, or even any of the higher forms of life. And this time evolution just will not work. Yet astonishingly Lovelock remarks, "Three and a half aeons of experience and of research and development have no doubt given time and opportunity for the evolution of a sophisticated and comprehensive control system." But what can this mean? Gaia does not reproduce herself, there is no survival of the fittest little Gaia's to perpetuate their race! It is so easy to talk of evolution when we ought to talk of teleology and God!

REFERENCES

- 1 J.E. Lovelock, *Gaia: a new Look at Life on Earth*, Oxford University Press, 1979 £4.95.
- 2 See, for example, M.B. Wilkins, *The Physiology of Plant Growth and Development*, 1969.
- 3 *New Scientist*, 12 Feb 1981, pp.394-397.

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REVIEWS

Norman L. Geisler, *The Roots of Evil*, Zondervan/Probe, Grand Rapids, Michigan, 1978, 96 pp (Available from Paternoster Press, Exeter, £1.95).

This is one of a continuing series of studies under the rubric of The Christian Free University Curriculum. Other studies have been reviewed in this JOURNAL (106, p.85 and 107, p.57).

The author offers a very brief overview of philosophical options concerning the problem of evil; some dealing with the nature of evil and some with the nature (and existence) of God. The review is completed in the equivalent of about 48 normally printed pages (there are wide margins and 20 unnecessary pages). The offering is triple-distilled and has undergone some thermal cracking as a result! A claim such as "A world without sin is not the best of all possible worlds" (p.59), even in context, is startling, to say the least.

The extraordinary condensation has produced some hideous jargon - 'finitism', 'illusionism', 'impossibilism', 'finite-Godism', and 'permanentizing', whilst the notion that God delights in evil is called 'Sadism'!

More serious criticisms are that the biblical views of sin and evil are not clearly expounded and non-Christian answers to the problem of evil are too easily dismissed so that neither case receives effective treatment.

There are few misprints, although p.71 has a misplaced footnote. There is a brief but useful list of books for further reading, of which let us hope those by C.S. Lewis will continue to hold their own against this kind of competition.

D.A. BURGESS

Ninian Smart, *The Philosophy of Religion*, London, Sheldon Press, 1979, 196 pp, £3.50.

Here is a book by a perceptive, sensitive scholar, written in a straightforward manner and completely free from jargon. It demands, and will certainly repay, careful reading by those whose interests lie within the purview of the V.I.

The author maintains that religious language cannot be understood without a consideration of what those committed to a religious view themselves think and do. Thus, chapter 1 is an attempt to understand the concept of 'religion' before discussing its possible truth later in the book. Smart begins with Otto's definition of the experience of the Holy centred in the numinous and concludes that much wider connotations are called for, especially when considering non-Christian religions. There does not seem to be a single form of major religious experience.

He claims that religion is characterized by mystical (apprehensions) of reality stretching beyond the manifest world in an unseen, transcendent direction. This helps in the decision whether or not to include systems such as Marxism and Humanism as religions: "...the problem of religion is in part the problem of the ineffable."

Chapter 2 - "On Understanding the Inexpressible" - tries to clarify the ways in which that which is in part incomprehensible can yet be understood. The notion of meaning is developed in two contexts - that of statements ("sentential meaning") and that of "living meaningfulness" (the existential practice of prayer, worship, contemplation and so on). The latter is explored more fully in Chapter 3.

Having discussed the meaning of religion in the first three chapters, the last three are concerned with its truth. In chapter 4 the idea of revealed truth is considered, mainly with reference to the Christian faith, although the author is not arguing for the truth of any particular religion and does not indulge in special pleading. Smart attempts to show that it is necessary to take the idea of the "given" of revelation seriously, not as a theological model merely, but in relation to the richness and complexity of the criteria of truth in religion as enumerated in the chapter.

Chapter 5 considers the relationship between Religion and nature. Natural theology, though unable to give final proof of the truth of a given religion, might provide grounds for belief and give credence to the possibility of a "transcendent religious ultimate". The author considers the cosmological arguments of Kant and Aquinas to be inadequate without a prior religious context. He further considers that any version of the teleological argument is less than persuasive. In a commendable effort to be objective, he does not, I think, give full weight to the argument from design.

The supposed conflict between religion and science is misconceived, Smart believes, because the problems posed by natural theology and natural metaphysics are extra-scientific;

they are not "in the same league" as scientific problems. When they do play in the same league, for example in facing the scientific (*sic*) evidence for the evolutionary descent of man, religion generally suffers heavy casualties.

The final chapter takes a brief but illuminating look at three theories which purport to give an account of religion in reductionist terms; those of Freud and Jung (psychological) and that of Durkheim (sociological). Although Jung is anti-reductionist compared with Freud, all three theorists attempt to impose on religion a "real meaning" imported from elsewhere and, if the meaning of a religion ascribed to it by its believers is ignored, religion may be 'explained' by fitting it into a Procrustean bed.

The book is almost free from misprints (although 2 are on p.42), it is adequately bound and clearly printed. Chapter notes refer to books for further reading and there is a comprehensive index.

D.A. BURGESS

F.F. Bruce, *Men and Movements in the Primitive Church: Studies in Early Non-Pauline Christianity*, Paternoster Press, Exeter, 1979, 159 pp, PB, £3.

This slim volume represents four lectures given in Manchester, the last in the John Rylands University Library. It deals with a complicated subject, which has received all too little satisfactory treatment in the past, especially at the popular level. Even in this book, unfortunately, there are occasions when lack of space makes the treatment less than adequate.

The first three lectures deal with Peter, Stephen and other Hellenists, James and the Jerusalem church. For the reason stated Bruce is often apt to give his views without adequate discussion of other possibilities. A few examples must suffice. He considers that the naming in the Apocalypse of only twelve apostles of the Lamb on the foundations of the New Jerusalem is in some way an anti-Pauline gesture, but how could thirteen have been fitted into this highly symbolic vision? It is a pity that he should suggest that relationships between Peter and Paul were never quite the same after the scene between them in Antioch. This may be true, but evidence is wholly lacking. Similarly, while Acts 12:17 clearly points to house churches in Jerusalem, it gives no real support to the idea of divided leadership.

Some of the evidence Bruce cites is open to other interpretations. If Stephen's outlook had been as extreme as is suggested, it is unlikely that the Twelve would have agreed to his becoming

one of the Seven, let alone their leader. (It is possible, of course, that in the heat of controversy Stephen found himself moving into an extremist position.) In considering how James came to a position of apparently unquestioned leadership of the Jerusalem church, Bruce fails to mention James' importance as being Jesus' eldest brother. To recognize Jesus as Messiah had for the Jewish Christian a political implication, which made James his Brother's natural representative.

I have the uncomfortable feeling that, quite naturally perhaps for a Paulinist, Prof. Bruce has not understood the tensions of the Jerusalem church as he has those of the diaspora. To give a degree of credence to the suggestion that the gifts brought by Paul were rejected, and even to mention the idea that Paul was framed by the leaders of the Jerusalem church, even though Bruce rejects the idea out of hand, seems to suggest that he has not realized that in some scholarly circles there is a tradition of Antijudaism — it is not Antisemitism — which expresses itself all too often in a low view of the Jerusalem church.

The fourth chapter, *John and his Circle*, is an excellent review of modern views about the authorship of the Johannine writings. Bruce here effectively counters wilder views, but unfortunately he tells us little about the Johannine circle. This is the more disappointing because of the increasing tendency to find links between John and Qumran. If there is another edition of this work an appendix on this theme seems highly desirable.

H. L. ELLISON

Charles Martin, *You've got to Start Somewhere*, IVP, 1979, ca 100pp, PB, £1.35.

This book is written to help the would-be Christian teacher to disentangle the many educational and social philosophies confronting him when he starts a career of training. There is also much here which should prove helpful to those of other faiths, for Christian concepts of God as Creator and ruler of man's destiny and behaviour are shared with other religions. The author seems aware of this and gives a salutary warning against a false Christian take-over bid by the ultra-fundamentalist who despises non-Christian starting points on the ground that everything is revealed in the Bible.

Among the topics raised are social science, psychology, religious education and theories of learning. Here there is a necessary caveat about premature application of tentative findings of current educational and psychological research. The point that psychology is not necessarily, competitive, but rather complimentary, to a Christian account of behaviour is well made.

Aspects of truth which do not lend themselves to scientific methods of investigation are stressed. It would be difficult to explain scientifically why a series of musical chords arranged in one way is euphonious, in another cacophonous. Great care is therefore needed when moving from "scientific observation and description to moral judgment and social prescription".

Some interesting questions are raised and the discussions should help the student to find answers for himself and to crystallise a confusion of theories and current fads into something coherent in the light of his belief in God as 'anchor man'.

Will all this training help the young teacher to be efficient in the classroom? This is perhaps open to question. If he becomes an administrator then clearly he should know about current ideas. In the reviewer's experience philosophical considerations do colour one's attitude to pupils but how things work out will probably depend less on theories of education than upon rapport with students, upon sensitivity towards their feelings, and upon a willingness to hear their points of view amicably without being visibly self-righteous and dogmatic.

The reader should not be too put off by the literary style of the author especially in the earlier chapters where the English is often sloppy, or by a plethora of clichés on most pages. Nevertheless, the reader is supposedly in training as an educationalist and deserves better than the conversational style of sixth form youngsters.

ALLAN ADAIR

A.R. Millard and D.J. Wiseman (eds.), *Essays on the Patriarchal Narrative*, IVP 1980, 223pp., £6.95.

The publication in the mid-seventies of two iconoclastic studies of the patriarchs, by T.L. Thompson (*The Historicity of the Patriarchal Narratives*, 1974) and J. van Seters (*Abraham in History and Tradition* 1975), brought to a quite sudden end the comfortable scholarly consensus which had for several decades been pleased to credit the Genesis patriarchal narratives with a fair degree of historical verisimilitude. These two, together with other of their generation who 'knew not Joseph (alias W.F. Albright)', have presented detailed archaeological and literary arguments in support of their contention that the proper locus of the patriarchal traditions is in the first millennium, rather than in the early second millennium, as Albright and many others had thought. As a contribution to this debate, and in an attempt to relieve the picture of some of its distortions, however acquired, the Council of Tyndale House commissioned the patriarchal project which has resulted in this symposium. In a fitting act of *pietas* the volume is dedicated to the memory of Dr. W.J. Martin, "the Christian

scholar whose vision led to the establishment of Tyndale House, Cambridge."

Since so much of the debate revolves round parallels, their validity and their use, it is good to be reminded by John Goldingay in the opening essay that 'parallels prove nothing'. Indeed, it is salutary to reflect that the scholar who would do justice to these narratives should not expect to do more than show the *plausibility* of the events and personages in the historical context in which the Bible places them. In defensive operations it is easy to overlook the fact that the narratives combine historical, traditional and theological interests and thus to do violence to the text. Sitting in our swivel chairs we shall probably never know whether history in Genesis is *à la* Kings or *à la* Chronicles - if we may import an alien typology. It is therefore one of the merits of this volume that it by no means limits discussion to archaeology and history. There are, to be sure, large tracts concerned with archaeology and the interpretation of archaeological finds, but we are also invited to consider the methodology that must inform such discussion, if only to avoid the danger of selecting parallels simply because they support an *a priori* position (A.R. Millard). And even if the whole concept of a 'patriarchal era' has been set aside by some scholars that does not prevent J.J. Bimson from offering a fairly precise chronology of the patriarchs, beginning with Abram's departure from Ur in 2092 BC!

One of the main casualties in the reevaluation of the patriarchs has been the Nuzi parallel. This M.J. Selman hails as an undisguised blessing in that it breaks the fragile connection between the patriarchs and a film-freeze at Nuzi which is, in point of fact, removed by several centuries from the probable time of Abraham and his immediate successors. Doubt had been cast on some of the parallels long before Thompson and van Seters and it is very unlikely that anyone will try to resuscitate the connexion. Rather, the way is clear for the use of parallels in an illustrative and supportive rôle from various periods and geographical regions. And Selman offers himself as a hostage to fortune by suggesting thirteen valid comparisons between Genesis and other near eastern texts! Numeracy can also come to the aid of the Biblical scholar, as when D.J. Wiseman disposes of van Seters' claim that references to tent-dwelling, as in the Abraham cycle, are more characteristic of first millennium texts.

Patriarchal religion did not include the use of the Divine Name (tetragrammaton) for God, concludes G.J. Wenham after rejecting the more usual conservative explanations of Exodus 6:3, viz. the rhetorical question approach and the semantic play on Hebrew *shem* ('name'). Rather than commit himself to the vagaries of the source-critical hypothesis Wenham maintains that the use of the Divine Name in Genesis is an editorial retrojection made

possible by the editor's conviction that Yahweh and the God of the patriarchs are one. It is a view which has occasionally been canvassed independently of the documentary hypothesis and one which the reviewer finds particularly congenial. Implications for the prevailing mode of Pentateuchal criticism are not hard to discern here, nor in the concluding piece by D.W. Baker on the literary structure of Genesis.

This is a volume of carefully researched scholarship and, on the whole, its claims are modestly expressed. How else could one conduct oneself in a minefield?

ROBERT P. GORDON

The Divinity School, Cambridge.

John Habgood, *A Working Faith*, Darton, Longman and Todd, 1980, xiv + 193pp, £4.95.

Is the Christian faith relevant to the complex ethical and moral problems of today? The Bishop of Durham takes up the challenge. In this book he examines critically a wide spectrum of issues in which such problems form a crucial part and helps to see their solution and their significance.

Dr. Habgood writes as a scientist as well as a theologian. He is therefore able to bring an objectively trained mind to bear upon the questions and throw new light on areas where there is uncertainty or controversy.

Each chapter of the book consists of an essay prepared for a specific occasion, for example a memorial lecture or a conference. The chapters reflect current issues which have emerged of national or international importance. They are grouped into three sections.

The first covers such topics as Darwin and evolution, chance in the purpose of God and what is meant by 'man created in the image of God'.

The second deals with the ethical problems of nuclear energy, the proliferation of nuclear weapons, and questions of automation in the computer age.

The third takes up such live questions as contraceptives for the under 16s, prolongation of life for the defective new born, and experimentation on human beings.

This is a refreshing collection. In all these enquiries Dr Habgood finds that God, far from being an 'optional extra' is an essential foundation to understanding. The book may be commended as a stimulating contribution in our search for right and wrong in

some of the most complex technical and scientific problems of today.

FRANK T. FARMER

Maurice C. Burrell, *The Challenge of the Cults*, IVP, 1981, 160pp., £1.60.

The cults covered in this book are The Worldwide Church of God, the Family of Love, the Moonies, the Divine Light Mission, Transcendental Meditation, Hare Krishna Movement and Scientology. Canon Burrell has obviously worked hard in trying to understand them and has succeeded in writing an important and fascinating book which deserves to be widely read. He compares each of the Cultic teachings, in turn, with what he calls "mainstream Christianity", tabulating the teachings of the one against the other.

Most of the cults considered are eastern-orientated, an exception being Herbert Armstrong's Worldwide Church of God (WCG) concerning which the writer of this review has some knowledge, having read their books and their magazine "Plain Truth" over a number of years.

In theology it is surprisingly difficult to be fair to an opponent who may hold the same beliefs as you do, but expresses them in a different way. To the reviewer it seems that many of MCB's criticisms of WCG are penetrating and probably valid but others verge, perhaps, on the semantic, or reveal a lack of knowledge of HA's writings. It is pointed out, for instance, that HA includes the Father and the Son in the Godhead, but not the Holy Spirit as a separate entity. A reader might gain the impression that HA does not believe in the Holy Spirit. But this is far from true (see for example "What and why the Church" in *Plain Truth*, Feb. 1981). Again, we are told that according to HA "Christ's death on the cross did not achieve man's salvation, but gave everyone the opportunity of a fresh start. We are now free to earn our salvation..." In contrast, Christians believe salvation to be "God's gift, not a reward for work done", Eph. 2: 8-9. Compare HA, "He took on Himself our human guilt for our sins. God gave His only begotten Son to pay that penalty (of sin) in our stead" (*loc.cit.* 8,23) and elsewhere HA writes much about the need for repentance. And what about Phil. 2:12? Yet again we are told that the WCG keeps Saturday as the Sabbath, but Christians keep Sunday. This is true but NT authority for the 'Christian' Sunday tradition and for HA's Saturday observance are both lacking. Of course there is much that HA says (e.g. his British-Israelism) which one would wish to reject, but many Christians would feel equally critical of certain aspects of mainstream Christianity.

The lesson we may learn from this little book is, perhaps, that it is only too easy to say to others "I am a Christian and you are not", or even "I am ethical and you are not" - for in many respects the cults based on Eastern religions are more ethical than mainstream Christianity.

ALLAN ADAIR

Bruce J. Nicholls, *Contextualization: A Theology of Gospel and Culture*, Paternoster Press, Exeter, 72pp, PB, £1.50.

In this book Bruce Nicholls attempts to deal with the issues that confront Christians who seek to evangelize those reared in a different cultural background. He believes that we need to re-examine the influence of our own cultural background on our understanding of the Gospel, and he deals at length with both a liberal and a dogmatic interpretation of the Bible. In some areas he thinks that the Bible must be given precedence over culture. These areas include the believer's commitment to the Lordship of Christ, and the doctrines of the Trinity, the Creation and the Saving nature of God.

Particular emphasis is placed on Third World theologies and we are urged to look again at traditional Western theology in the light of these new developments. References are provided in the notes at the end of the book but many of the sources mentioned may prove difficult to consult on this side of the Atlantic.

My only criticism of the book is that at times the author fails to heed his own message. His lapses into American vernacular sometimes make it all but impossible for a mere Englishman to understand what he means! Nevertheless, taken as a whole the book is well worth reading. It is also attractively produced and reasonably priced.

GRAHAM DOVE

Fred Hoyle, *Steady-State Cosmology Re-visited*, University College, Cardiff Press (University College, P.O. Box 78) 1980, £3.25.

In this entertaining but rather mathematical little book Fred Hoyle, maverick among astronomers, tells us something about the way in which his patterns of thought have changed over the years. In his early days he took strong exception to the big bang theory of the Creation. It "worried me. Indeed, it seemed absurd to have all the matter created as if by magic, as is still done today, amazingly in most quarters without a blush of embarrassment."

In 1946 Hoyle with Bondi and Gold went to see a ghost story film which had four parts ingeniously linked together in such a way that it became circular, with the end the same as the beginning. They retired to Bondi's rooms in the Great Court of Trinity College, Cambridge, where Gold remarked "How if the universe is constructed like that?" They all began to reflect that objects like a smoothly flowing river (perhaps the universe also) may have features which are unchanging, even though all is in motion. Perhaps the very large numbers of cosmology and the gravitation constant G are unchanging too; perhaps the universe is unchangingly dynamic; perhaps matter is being created in a continuous process of creation.

Perhaps. But there were objections. Later they seemed less insurmountable. Within a year or two Fred Hoyle produced the Steady State (SS) theory for which he is chiefly famed. New matter was to be created all the time in an infinite universe. "The new matter could be hydrogen atoms, neutrons, or cakes of soap" - mathematics did not tell you which. Gradually difficulties with this view increased, radiotelescopes detected more distant objects than the SS theory demanded: repeated calculations by several astronomers, Hoyle included, fitted in well with the proportion of helium in the universe as calculated on the big bang hypothesis. By 1963 Hoyle was a maverick no longer: he was proclaiming the evidence for the big bang at least as earnestly as other cosmologists.

Since then Hoyle has had a change of mind. He would like to return to the SS theory once more. He has discovered flaws in the evidence which led him to abandon it in the past. He had made unjustifiable assumptions (e.g. that carbon is suspended in space in the form of tiny balls rather than needle-like crystals). Also he now thinks that the background radiation might perhaps be produced in some way other than by the aftermath of the big bang. So he proposes to return to the SS theory once more.

But what form shall it take? Spontaneous creation of protons, or cakes of soap? No. No. Evidence for a big bang of *some* kind is now so strong that it just cannot be ignored.

But need the big bang have been *quite* such a big bang after all? Suppose it was not a universe-mass but just a galactic-mass which exploded. If so our galaxy started off as a white hole. Now there is nothing in the evidence, thinks Hoyle, to say that it was the *only* white hole. So why should not an infinity of white holes be created continuously throughout infinite space and infinite time? Well. Well. Fred Hoyle is never at a loss in suggesting new approaches. How will this one fare?

In Part 2 Hoyle refers to some of the remarkable features of the universe which make life possible. More than 2000 independent enzymes are necessary for life. The overall probability of building any one of them can hardly be greater than 10^{-20} : the chance of getting them all by a random trial is less than $10^{-40,000}$. "This minute probability of obtaining all the enzymes, only once each, could not be faced even if the entire universe consisted of an organic soup." There are other biomolecules to consider too! "It is idle to argue that the information lay in a sterile physical environment at the surface of planet Earth in the early days of the solar system." He wondered in the past if the solution lay enshrined in the Schrödinger equation: but now he sees that that will not do either. A year or two ago he thought that life might be formed in space where there is more matter available than on earth and the low probabilities a little less daunting. Now he feels forced back once again to his SS theory. This allows for *infinite* time and space in which information might have evolved.

We are not privileged to peep into the reasoning which lies behind this strange idea. If, in the course of ages some information was created by the chance formation of a protein in space, would it not quickly have disappeared again? How could it possibly be stored in a celestial cupboard where new morsels of information might be added one by one over the course of ages? The point is critical, but Hoyle does not enlighten us. Instead, without a blush of embarrassment he prefers to speak of evolution, - a word which, in such a context, seems to mean nothing short of magic. But why, one keeps asking oneself, does Hoyle assume that reality consists *only* of the entities which physicists and chemists study? Is not the true gist of his argument that evidence of a mind-like Reality at the back of things has now become altogether overwhelming?

[Happy ending! In *Astrophysics and Relativity*, May 1981 FH concludes that "an enormous intelligence must be abroad in the universe" p39.]

David Martin, John Orme Mills & W.S.F. Pickering (eds.),
Sociology and Theology: Alliance and Conflict, Harvester
 Press, Brighton, 1980, 204pp, £14.00.

REDC

In the nineteenth century, science appeared to many as theology's greatest enemy, presenting a highly materialistic world-picture in which there was no place for God. Replace 'science' by 'sociology' and 'materialistic' by 'relativistic', and you have the twentieth century situation. Why has sociology come to bear the mantle of theological adversary? The nineteenth century science/religion conflict was resolved for most people by a positivist philosophy that firmly separated matter from meaning, science from art; the challenge presented by the twentieth century human sciences of anthropology, sociology and psychology was that they transgressed this division, for they attempted to study the facts of the *moral* life after the manner of the *natural* sciences. Positivist

philosophy may protect religion and theology from natural science, but not from social science.

This, at any rate, is how one of the contributors to this volume puts it. The volume is the product of two symposia held in Oxford at which a select band of academic sociologists and theologians met to discuss the relations between their disciplines, aided by one or two philosophers. They represent a fairly wide range of interests, though the theologians tend to be Dominicans and the sociologists tend to be sociologists of religion. The articles are high powered and not for the amateur.

The volume is entitled *Sociology and Theology: Alliance and Conflict*, but there is an unstated emphasis on theology rather than sociology, and on alliance rather than conflict. Quite how the conflict evaporated I'm not sure, but I do have a hypothesis as to why theology rather than sociology is emphasised, which I'd like to discuss.

If you want to explore the relations between the academic disciplines of sociology and theology, it seems to me that you face a certain asymmetry. Theology's subject matter is God, or rather our knowledge of God, though theologians also deem themselves mandated to examine the human condition, the good life, society even. Sociology's subject matter is society, which includes religion as a social institution (and that includes religion's various social groups, of whom theologians are one); sociology does not deem itself competent to discuss God Himself (not at any rate since the heady days of Durkheim). So the asymmetry is as follows: theologians feel that as theologians they can, among other things, talk about society, though they are not particularly competent to study sociologists; sociologists as sociologists can study theologians but they may not study God Himself. Thus theologians *qua* theologians and sociologists *qua* sociologists share as common interests society (the subject matter of sociology, though not the practice of sociology) and the practice of theology (though not God, the subject matter of theology). So a symposium of theologians and sociologists can discuss society but not sociology, and it can discuss theology but not God. Robin Gill puts the matter most succinctly (p.102): "It is quite possible to see what a systematic sociological account of theology would entail... But it is not nearly so clear what a theological account of sociology might be." (Hence the dominance in the symposium of sociologists of religion.)

So what we have here is largely a discussion of what sociology may or may not have to offer theology. Theology is exposed as a discipline unsure of itself, its scope and its methods (though, if there had been more discussion *of* sociology rather than *by* sociologists, sociology would have emerged in a similar light).

I have to confess that much of the discussion flowed some way above my (these days) none too academic and rather untheological head, though it was fascinating to read of a Christian professor of sociology at Bordeaux who in 1943 during his retirement wrote a book entitled *Sociologie et Théodicée: leur conflit et leur accord*, and to learn of various other individuals and groups who in sundry places and at sundry times had considered the matter. That there is no mention of Jacques Ellul is perhaps indicative of the separate tramlines in which various brands of social scientist and theologian travel. There are some useful criticisms of Peter Berger.

Apart from professional academics, there are two sorts of people interested in the theology-sociology interface: (i) theology students who increasingly these days get a dose of elementary sociology, and (ii) Christian students who study sociology more seriously as a major course. The book may be of some interest to the former, but hardly addresses itself to the concerns of the latter. The problem is that the book takes too rarified a view of theology, and I was glad to find Robert Towler making much the same criticism in the very last sentence of the book: "The debate is not likely to advance significantly towards a more creative relationship between the two disciplines until the circle is widened so that sociologist and theologian listen with proper attention not only to each other, but also to ordinary *homo religiosus*." If Christianity has anything to say to sociology, there is no special reason why it must say it through academic theologians. This is perhaps not so much a criticism of the book as a delineation of its limits.

The book concludes with an excellent index and bibliography, features all too often neglected in the published proceedings of symposia.

J.A. WALTER

J. Wesley Robb, *The Reverent Skeptic: a critical inquiry into the religion of secular humanism*, Philosophical Library, New York, 1979, 222pp, \$12.50 HB.

This book is by a professor of religion at a Californian university and is written for those "informed and responsible persons (who), for one reason or another, have bracketed out of their lives any formal religious expression", people whose 'religion' is a naturalistic ethical humanism. Robb highlights the weaknesses of a humanism that refuses to include the supernatural, but he does not say anything that has not been said before (for example, pointing out the implicit faith and metaphysical beliefs of self-proclaimed secularists, or the unverifiability of the logical positivists' principle of verification). He is particularly scathing of attempts by humanists

to show the superiority of science over religion that make comparisons between the science of the university professor and the nominal or superstitious religion of the man-in-the-street; Robb points out that if you compare like with like, the religion with the science of the man-in-the-street, then science does not come off so well.

Robb recognises that it is the naturalistic worldview of modern science that fuels the fires of humanism, and so he is concerned to explore modern exponents of natural theology who would see evidence for theism in the natural world. He concludes that there is much in interpersonal relations, ethics, aesthetics and religious experience that make more sense if one admits to theism. Robb calls his philosophy 'naturalistic theism'.

Robb, though, is a skeptical theist. To arrive validly at a naturalistic theism, the individual must do his own "critical inquiry", he must discover religious experience "for himself", and so on; the reason of the individual inquirer rather than revelation or the authority of the church is the only basis on which Robb will allow us to proceed. This kind of theological liberalism, as Harry Blamires has pointed out recently in his book *Where Do We Stand?*, at first sounds very tolerant of other people's views and allows each his own religion, but in fact it is very arrogant: the individual considers his judgment better than the considered and tested judgment of the community of Christians through the ages. I, for one, do not trust my own reason and that of the late twentieth century quite so blithely.

But then Robb is writing for those who have no particular respect for the authority of either church or Bible. He appeals to them to use their own reason to weigh the evidence. I fear the particular evidence he presents is hardly likely to change anybody's mind, let alone their lives.

J.A. WALTER

D. Gareth Jones, *Our Fragile Brains: A Christian Perspective on Brain Research*, IVP, 1981, pp.290, £3.95

Here is some first-class reading for anyone who wonders what to make of the mushroom growth of current knowledge and theories about the functioning of the human brain, especially in its relationship to the Christian doctrine of man. The author is admirably well informed on a wide range of topics in the neurosciences and is himself, as a professor of anatomy and human biology, a highly qualified practitioner of brain research. This gives a refreshingly first-hand ring to much of what he has to say, and commands respect for the arguments he advances. If the level of technical detail is at times more demanding than

IVP readers may normally expect, it makes the book all the more worth putting into the hands of scientifically minded non-Christians.

After a lucid introduction to the anatomy of the brain, the book moves directly to the topic of language and consciousness - an ingenious manoeuvre which allows the distinctive features of the human brain to be brought out from the start. The remarkable effects of splitting the corpus callosum - the fibre bundle connecting the two cerebral hemispheres, which is sometimes severed in order to control severe cases of epilepsy - are well described, with due caution as to their implications. In such 'split-brain' patients the control of speech is normally confined to one hemisphere, so that the patient may verbally deny knowledge of information that is being successfully handled and used by the other hemisphere. Dr Jones argues however that "far more research on hemisphere functions in the normal brain must precede any acceptance of 'double consciousness' (in such patients)" (p.83). He also pours cool Christian water on exaggerated claims as to the merits of 'right-hemisphere' or 'left-hemisphere' dominance in normal individuals.

Striking examples are given of the effects of other forms of brain damage on personality, leading to the conclusion that in extreme cases "the original *person* may be dead, despite a physiologically intact *body*" (p.107). This leads naturally to discussions of 'Brain Control' and its ethical implications, 'Behaviour Control' (including the use and abuse of drugs), and 'Environmental Influences on the Brain', with special emphasis on the effects of malnutrition. A long chapter on 'The New Consciousness' provides a useful (and properly critical) insight into techniques of meditation, drug 'trips' and the like, ending with a robust affirmation that Jesus Christ is the true way into "new consciousness".

The concluding chapter on "The Human Brain and the Human Person" steps remarkably surefootedly through a controversial minefield. The positions of reductionist mechanists like B.F. Skinner and J.Z. Young are peacefully assessed, and their weaknesses brought out, without denying the validity of mechanistic analysis of the brain at its own level. Contemporary dualist-interactionist models of the mind-brain relationship are also criticised in some detail, though with arguments from which a die-hard interactionist might not find it impossible to escape.

Modesty precludes comment on Dr Jones's careful and sympathetic account of the present reviewer's position. One question raised, however, invites a brief response. What does MacKay mean by 'freedom of action'? Following Stephen Evans, Dr Jones considers two interpretations: (a) lack of knowledge of any prediction of the action; (b) logical indeterminateness of the

specification of the action. Quite rightly, he rejects (a), and observes that (b) would not imply freedom unless the action were also *determinable* by the agent (p.270). The weakness here lies in Evans's analysis of MacKay's case, which overlooks its starting point. The actions in question are all of the class we describe as 'making up one's mind'. They are thus, by definition, happenings that the agent not only can but must determine - unless, indeed, like the proverbial Hamlet, he is suffering from pathological indecision. Given this, the question is whether we need to deny the physical determinateness of his brain processes in order to affirm that he determines his actions freely. It is to *this* question that MacKay's argument answers 'no', on the ground that the outcome would be logically indeterminate for the agent even if his brain were physically determinate and predictable by an ideally detached observer. The crucial point is that what such an observer would be correct to predict is not in general what the agent would be correct to accept as *inevitable*. If it is correct only on the assumption that he does *not* accept it, then he would be mistaken to accept it: if it is correct only on the assumption that he *does* accept it, then he would not be mistaken to reject it. In either case, for reasons spelt out clearly on pp.266-7, no such prediction has an *unconditional* claim to his assent.

Neglect of this *relativistic* aspect of our human situation is responsible for much confused argument. People imagine that if the predictor could prove in retrospect that he was correct, this would somehow invalidate the agent's belief that he determined the outcome, and that it had no determinate specification beforehand with an inevitable claim to *his* assent. The appearance of conflict here, as in the somewhat analogous case of physical relativity theory, is illusory.

A useful bibliography increases the value of the book to those who want to dig deeper in this active field.

D.M. MACKAY
University of Keele

Stephen H. Travis, *Christian Hope and the Future of Man* (Issues in Contemporary Theology), IVP, 1980, 143pp, PB £2.85.

The author of this valuable book is a recognized authority on eschatology. The only real criticism that has to be made of the book is that the name of the series in which it appears is in such small type on the cover. Some simple Christian may well buy it and be completely foxed by its contents, which are intended for readers with a considerable knowledge of theology.

Virtually throughout the history of the Church the authority of the Scriptures has been challenged by philosophical presuppositions, and the theologian has been under constant pressure to make his understanding of Scripture conform to contemporary philosophy. The position began to be more radically changed as modern Biblical studies questioned the accuracy of the Scriptural narratives. There are still many for whom 'criticism' is identical with the questioning of the OT, but in fact its storm centre is concerned with the NT today. It has provided the theologian with a convenient possibility of eliminating those elements in the teaching of Jesus which conflict with his views, by attributing them to later church misunderstandings.

Already by the middle of last century traditional views of heaven and hell were very widely questioned, and today in the light of modern philosophy, psychology and Biblical study they have been virtually abandoned in most liberal circles. That is not to say that there is not much truth in some of the new insights, though the final picture can seldom be reconciled with what appears to be the plain teaching of Scripture.

The author has done us a valuable service in summarizing the main lines of modern thought and giving a brief criticism of them, more often than not in the words of other moderns. For the sake of brevity he refers mainly to works that have appeared during the past twenty years and have either been written in English or translated into it.

For the simple Christian Daniel and the Apocalypse have always exercised a major attraction, when he has thought about the future and they provide the major support for certain modern cults. Dr Travis has devoted three chapters to various aspects of apocalyptic and its value. Personally I wish he could have given even more space to the subject and made clearer the distinctive features of canonical apocalyptic in contrast to those writings that fell by the way.

His treatment of the Parousia, of resurrection and immortality, and of eternal destiny is restrained and positive. He does not seek to give definitive answers to questions that by their very nature are beyond our understanding, but by his very reticence helps to lead us to a balanced outlook.

This is decidedly not a book for one who approaches the future in a purely fundamentalistic and literalistic frame of mind, but for those who want to understand the mixture of truth and error in modern liberal theology, it will prove enriching and will confirm the authority of Scripture as it points us to that which is to be.

John Kraay and Anthony Tol, *Hearing and Doing: Philosophical Essays Dedicated to H. Evan Runner*, Wedge Publishing Foundation, Toronto, 1979; pp. xvii +380, 14.95 dollars.

Man, Luther says (*In Ep. Pauli ad Gal. ... Comm. on Gal. 5,17*), is not flesh and spirit, but 'all flesh', if he surrenders to desire; 'all spirit', if he surrenders to the law, "which is going to happen when the body will be spiritual." Like "that man who, in Luke (10:30f), was only half-living and, while helped by the Samaritan, got cured, but was not yet restored to complete health, so we in the church are also being restored to health, but are not in possession of complete health ..." The restoration process will not be completed until the *parousia* (cf. H. Richard Niebuhr, *Christ and Culture*, 1952, pp. 53f, 172f, 207f).

Today, liberal society is on the decline; its very defects undermine the taboos which once gave it some degree of stability and coherence. So Luther's unresolved dialectical tension between divine and mundane values commends itself as superior to any theory of progress or of regress in history. But how is it possible to demonstrate the spiritual ground of existence, so that the cure of the half-living man cited by Luther may be assured? To answer this question is the aim of the Dutch Reformed 'Amsterdam philosophers', Abraham Kuyper, D.H.T. Vollenhoven, Herman Dooyeweerd, of the Free University of Amsterdam, and of their Dutch and American followers of whom Evan Runner was one. Runner pioneered the Institute for Christian Studies, Toronto, which aims at "a greater penetration of North American culture and civilisation by the Gospel as understood in the spirit of Calvin's Reformation" (pp. 354-5).

This book contains numerous essays - too numerous for individual mention - which bear on the aims of the Institute and represent very diverse lines of enquiry. The standard is high: I enjoyed reading it and learned a lot.

The earlier essays which analyse self-determination are followed by a series dealing with historical themes. Here prominence is given to the work of Vollenhoven - "the Calvinist's philosopher's historian of philosophy" (p. 26) - who is said to have broken the spell of Greek pagan thought which had provided the background of all later European philosophies, including "all the great Christian thinkers, both orthodox and heretical."

The Word of God creates and impinges on the cosmos "in an all-embracing cosmic temporality, with one cosmic genetic unfolding process"; all existence is creation and redemption, the interpenetration of History and Spirit, the Kingdom of God (Steen: esp.

pp.138-39). The distinction between mundane temporality and God's *nunc eternum* of Christian thinkers since Boëthius is unscriptural (cf. esp. pp.136-37, influence of Cullmann's *Christ and Time*). So God Himself is *entirely* temporal? Referring to Him as 'Word' implies that His loving self-involvement in Creation is historical; this is the essence of the biblical message. But the very use of the imperfect tense in Jn.1:1 shows that He is also beyond history. To enquire into time and infinity, time and eternity, and other relationships between the Creator and the creation, is the task of metaphysics; it is quite distinct from the existential concern of biblical faith. This radical Scriptural orientation of all theoretical and practical activity towards God's redemptive will is most valuable; but that does not make philosophy a subdivision of theology. Created in God's image, man is privileged to exercise his responsible, autonomous judgment, whatever his work may be. I am therefore driven back to Luther's open-ended dialectic, the tension between flesh and spirit, rendered acute by the Fall, only to be spiritualised in the *parousia*.

The two closing studies (Calvin G. Seerveld, *Modal Aesthetics: Preliminary Questions with an Opening Hypothesis*, pp.263-94; Anthony Tol, *Counting, Number Concept and Numerosity*, pp.295-332) again subject their respective disciplines entirely to biblical thinking. Thus Aesthetics, one of the modes of human life, derives from, is structured by, the 'ordaining Word' (p.266), so that it is a science disclosing 'the good news of our Lord' (p.274) as *style*, which characterises art, works through being *allusive*, pointing symbolically beyond the artefact (poem, sculpture, etc.) which it moulds (pp.280ff). This valuable line of inquiry leads to such important features as ambiguity, or art as a special type of play activity, thus pointing to the Logos imparting its meaning in structured, non-utilitarian activity. Numerosity is a special instance of plurality, arising from the logical method of conceptualizing non-logical experience. It presupposes the expectation that experience will be comprehensible. This is fulfilled in a partial understanding of reality and it 'nudges man into factual involvement with the world about him (pp.325-26).

HANS POPPER

The University, Swansea

Emmanuel Sullivan, *Baptized into Hope*, SPCK, 1980,
244pp., £8.50.

The title of this book is a reflexion of the current theological interest in the theme of hope as the main message of the Christian gospel to the modern world and its culture. Fr Sullivan sets out to argue that the 'theology of hope' is not just a theologians' pipe dream: it can actually be seen at work in a number of developments in the church today. The signs of this can be

discerned in the Ecumenical Movement, in the Christian Liberation Movement, and in the Charismatic Movement, as well as in the common ground increasingly being found between Catholic and Protestant evangelicals, and the whole movement towards a fresh understanding of the meaning of basic Christian communities.

The author writes from a deep pastoral concern, and close personal acquaintance with most of the movements which he describes. His book is therefore doubly valuable. For not only does he describe and analyse contemporary Christianity in a critical but positive way; but he also does so with the stated intention of discovering where God is leading us. His own infectious enthusiasm comes through his writing time after time, as he correlates the new movements of the Spirit with the questions being asked by a non-Christian world. At times, his analysis of the world Christian situation may be a little over-optimistic. But a prophetic outlook can cope with this. Too often in the past, Christians have seemed to line up on the side of the pessimists and doomwatchers. But if the theology of hope is part and parcel of the authentic Christian message, we can hardly do that today.

JOHN W. DRANE

A.P.F. Sell, *God our Father*, Edinburgh: St. Andrew Press, 1980, 144pp., £2.50.

This is the first of a planned series of books that will eventually cover each of the major doctrines of the Christian faith. Beginning with the revelation of God in Christ, Dr. Sell goes on to expound God's nature as Father, His role in creation, His justice and mercy, eschatology, and much more. In each chapter there is an exposition of the subject, dealing with all sides of any significant arguments, concluding with devotional material, usually including hymns and prayers. The author's claim that "the spirit of enquiry is wedded to that of devotion" fairly sums up his approach. All the chapters in the book appear to have originated as sermons. But they are good sermons, based on the Bible, and recognizing the importance of commitment in the study of theology.

Dr. Sell's book would be an ideal way for Christians with no knowledge of theology to learn something about the issues. It could certainly be used with profit by individuals, and it also contains much material that would be helpful as discussion starters for study groups.

JOHN W. DRANE

Pinnock, C.H., *Reason Enough: A Case for the Christian Faith*, Paternoster Press, 1980, PB, 126pp., £1.60.

Dr. Pinnock is Professor of Systematic Theology at McMaster Divinity School, Ontario. His book, however, is not an erudite treatise on academic theology, but an interesting and informed investigation of the truth claims of the Christian message. The argument of the book is organised into five 'circles of credibility', all of them referred to in the Bible and all of them, according to the author, used regularly in Christian apologetics for the past two thousand years.

Circle One concerns the pragmatic basis for faith and is addressed to some of the questions raised by life itself, such as the problems of sin and guilt, suffering and sickness; the quest for meaning and purpose.

Circle Two outlines the experiential basis for faith, in relation to other religions and political systems.

Circle Three deals with the cosmic basis for faith and is necessarily more metaphysical. The author deals in a challenging way with the inherent mystery, yet apparent design in the universe and points up the importance of the moral dimension as a clue to the intelligibility of theistic belief.

Circle Four gives the historical basis for faith, in the life, death and resurrection of Jesus, while Circle Five concerns the community basis for faith. Here, the author illustrates briefly but cogently the social impact of the gospel in such developments as the high conception of the sanctity of human life, protection of infants, the ultimate emancipation of the slave class and the suppression of barbarity. In spite of the serious failures of the nominal church, the fruits of the gospel included "a movement of philanthropy which has never been paralleled or approached in the pagan world" (Lecky - quoted p.101).

One of the most perceptive chapters in the book is the sixth, in which Dr. Pinnock deals with some of the difficulties hindering the growth of faith, especially what he calls 'pseudoproblems', where Christians have often been their own worst enemy by inventing problems that need not have arisen. He singles out the debate over evolution versus creation where Christians are doing battle with the scientific establishment on behalf of creationism as if the Christian faith itself depended on it. (To be fair, some would claim that it does). Dogmatism, whether creationist or evolutionist, is unseemly in an intelligent person, the author maintains. The discussion must go on, but a Christian has perfect liberty to follow the evidence where it seems to lead.

The same chapter deals pertinently with the attacks on religion made by Marx and Freud. Dr. Pinnock maintains that these are blessings in disguise, since they challenge us "to get back to our roots in the prophets and apostles and awake from our stupor as pillars of the unjust status quo." Marx creates a difficulty for bourgeois religion, not for the gospel of Jesus Christ. Likewise Freud does not give us a reason to avoid faith (as neurotic and infantile) but a reason to adopt it for the right reasons.

Here is a book written with integrity and candour ("there is a riddle to human existence" - we do not have all the answers), which in a straightforward yet stimulating manner seeks to challenge unthinking unbelief and support tentative faith. It can be warmly recommended, especially for use by students, whether of the arts or sciences.

There is no index, but the main topics of each chapter are listed, together with page numbers, in the 'Contents'. At the back are notes on each chapter, referring to books published mainly in the U.S.A., although many of them are available in this country (e.g. IVCF publications) and others have British editions.

D.A. BURGESS

* * * *

THE VICTORIA INSTITUTE

or Philosophical Society of Great Britain

29 Queen Street, London, EC4R 1BH.

The Victoria Institute was founded in 1865 to promote investigation of the relation between science and the Christian faith, at a time when many people believed science to be an enemy of revealed religion and irreconcilable with it.

During the hundred years and more since then, the climate of thought has changed. Older problems have been resolved, new problems have arisen, and, above all, thinking Christians have realised the need to develop a world-view that welcomes new ideas and can incorporate new knowledge. The Institute has played an important part in these changes.

Since its foundation the Society has broadened its field of interest to include all intellectual disciplines that have a bearing on religion. Recent papers have dealt with archaeology, history, psychology, medicine, law, education, philosophy, sociology, and biblical studies, as well as the natural sciences.

With the ever increasing rate of advance in all disciplines, the need is greater than ever for an institution in and through which new developments relevant to Christian faith can be brought to the notice of Christians, and their implications discussed. The Victoria Institute, in attempting to play this role, aims at being constructive and forward-looking, and not merely defensive.

The Institute does not represent any particular denomination or theological tradition. Its policy rests upon the belief that the nearest approach to truth is likely to be achieved if a broad spectrum of views is considered.

The most important function of the Society is the publication three times a year of a journal, FAITH AND THOUGHT, which contains papers, book reviews, and short notices of current events and ideas. The papers include presentation of original work, and reviews of trends in broad fields. The Journal is sent free to all Fellows, Members, and Associates.

Meetings are held, regularly in London and occasionally in provincial university towns, for the presentation and discussion of papers. Some of the meetings take the form of a whole-day symposium.

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