

Faith and Thought

JOURNAL OF THE VICTORIA INSTITUTE

Published by

THE VICTORIA INSTITUTE

12 BURCOTE ROAD, LONDON S.W.18

CENTENARY NUMBER

Vol. 94 No. 3 Autumn 1965

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PRINTED IN GREAT BRITAIN AT
THE UNIVERSITY PRESS
ABERDEEN

Faith and Thought

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

Vol. 94

Number 3

Autumn 1965

ANNUAL GENERAL MEETING — 1965

AND

CENTENARY MEETINGS — 22 MAY 1965

THE Chair was taken by the President, Professor F. F. Bruce, D.D., at the Meeting which was held in the Bishop Partridge Hall, Church House, London, S.W.1. The importance of the occasion was underlined by the fact that it was the Institute's Centenary Year, and as the work of the Institute had been favoured under God for the past hundred years, the President expressed the hope, on behalf of all present, that the next hundred years would prove to be as useful in examining and discussing all those areas of knowledge which bear upon the claims of the historic Christian Faith.

There had, however, been certain changes of outlook and circumstances which made it necessary for the Institute to review its activity and methods from time to time. The publication of the Journal *Faith and Thought* had met with the approval of Fellows and members as being generally more valuable in making known the work of the Institute. But it would only be with the wholehearted support of all members of the Society, mostly by enlisting the support of others, that the work of the Institute could hope to progress in the future.

The Council, which had met earlier in the day, had already considered further ways of making the Institute more effective, and the details of these suggested measures would be made known shortly. Meanwhile, the members of the Institute wished to record their debt of thanks to all those officers who had faithfully served the Society. In particular, the Secretary and Editor were thanked for all that they had done on the Institute's behalf, and it had been proposed earlier that the Editor, Mr David J. Ellis, be invited to join the Council.

THE VICTORIA INSTITUTE, OR

INCOME AND EXPENDITURE ACCOUNT

1963			
£240	Papers, Lectures, etc., and Printing		£482
300	Administration: Salaries	£300	
6	Cleaning and Sundries	5	
			305
3	Typing and Duplicating and Office Expenses	£56	
32	Postage, Packing and Addressing	11	
4	Stationery, Advertising, etc.	9	
10	Audit Fee	10	
			86
			£873
£595	Excess of Income over Expenditure for the Year		287
440			
			£1,160
<u>£1,035</u>			

Balance Sheet as at

1963			
£19	Prepaid Subscriptions		£31
98	Sundry Creditors		13
3	Cash Overdrawn on General Fund		—
—	Centenary Reserve Account		250
—	General Fund: Balance at 1 October 1963	£1,343	
1,344	Excess of Income over Expenditure for the Year	287	
			1,630
			£1,924
<u>£1,464</u>			
	<i>Special Funds</i>		
465	Life Compositions Fund	£418	
508	Gunning Trust	508	
200	Langhorne Orchard Trust	200	
220	Schofield Memorial Trust	200	
400	Craig Memorial Trust	400	
402	Prize Fund	459	
			2,205
			£4,129
<u>£3,659</u>			

PHILOSOPHICAL SOCIETY OF GREAT BRITAIN

FOR THE YEAR ENDED 30 SEPTEMBER 1964

1963	Annual Subscriptions	
£327	Fellows	£375
455	Members	479
49	Associates	49
140	Library Associates	137
		<hr/>
16	Life Subscriptions: Proportion	£1,040
27	Sales and Donations	48
21	Dividends Received	51
		21
		<hr/>
<u>£1,035</u>		<u>£1,160</u>
30 September 1964		
1963		
£1,368	Subscriptions in Arrear	£1,582
68	Office Equipment	68
28	Sundry Debtors	35
—	Cash Balances	239
		<hr/>
£1,464		£1,924
	<i>Special Funds—Investments</i>	
467	Cash and Bank Balances	£477
1,728	Investments at cost	1,728
	(Market Value £1,320)	<hr/>
		2,205
		<hr/>
<u>£3,659</u>		<u>£4,129</u>

The Honorary Treasurer in presenting the audited accounts referred to the increased subscriptions and also the heavier cost of printing, The pattern followed that of the previous year, and he had reason to believe that many subscriptions in arrear at 30 September had since been paid.

The President then thanked Mr Francis F. Stunt for his generous efforts to care for the finances of the Victoria Institute, and a vote of thanks was accorded him at the Meeting.

Mr Stunt then presented the Statement of Accounts for the Year ended 30 September 1964, and invited all present to inspect them.

The President drew the attention of all at the Meeting to the details of the three Prize Essays which were available and expressed the hope that as many as possible would avail themselves of both participating in these competitions and making them known to others. It was moved from the Chair that the Vice-Presidents, Professor Anderson, Archbishop Gough, and Professor Guthrie, be confirmed in their offices for the ensuing year.

After formal business the President welcomed all visitors to the Centenary Meetings and expressed his pleasure at such a good response to the invitations which had been publicised. This Centenary, after all, was a most important occasion, and it was fitting that so many interested people should gather to mark the occasion. In particular, thanks were due to Mr Timothy Stunt who had prepared a history of the Institute, which was to appear in the *Journal*. In his final Presidential paper, Professor Bruce presented the historical context of the work of John the Baptist as the prelude to the mission and appearance of Jesus Christ, under the title of *John the Forerunner*. Professor Donald J. Wiseman then gave a survey of *A Hundred Years of Biblical Archaeology*, and though this paper was not prepared for publication in the *Journal*, it was evident that some of the most significant trends in Biblical Archaeology had been published by eminent members of the Institute of the past, and in the Institute's *Proceedings*.

At the commencement of the evening session, Professor Bruce explained that although in the past the presidential office of the Institute had been held for life, he did not intend to occupy the President's chair for that long, and was possibly creating a precedent by installing his successor. A word of welcome was then addressed to Professor R. L. F. Boyd, of the Royal Institution and the University of London, who then accepted the Presidency of the Institute with the warm appreciation of all present. In his inaugural address, Professor Boyd, in looking at *Some Lessons and Landmarks of a Century*, emphasised a conviction which had been one of the Institute's most deeply held, that all truth is God's truth, and that one of the most pressing needs among thinking people who interested themselves in the problems of

Science and Christianity was to keep clear the distinction between the languages of Christianity and Science.

Professor Boyd finally introduced a stalwart of the Victoria Institute, Professor Donald MacKay, who, in seeking to indicate fresh ways in which the work of the Institute could be of even greater value today, in *The Recovery of Harmony*, made it clear that there were yet many obstacles to belief among many who were genuinely seeking the truth, and showed that in the realm of dialogue covering certain fields of modern enquiry the Institute could indeed serve God as acceptably in the next hundred years as it had sought to do in the hundred years which had now passed.

T. C. F. STUNT, B.A.

The Victoria Institute : The First Hundred Years

‘WHAT a book Bishop Colenso must have written, and how dishonestly his friends are acting in keeping back part of the poison lest the first dose should be too strong at first. . . . “If they hear not Moses and the prophets neither will they be persuaded tho’ one rose from the dead.” They attack the Old Testament because they believe neither the Old or the New.’ So wrote S. P. Tregelles, the great textual scholar, when writing to his cousin, in 1862, in an attempt to express his consternation at the publication of Colenso’s first volume of *The Pentateuch and the Book of Joshua Critically Examined*. He was not alone in his views and such an attitude was widespread. One of the products of the orthodox alarm aroused by liberal scepticism in this way was the foundation of the Victoria Institute.¹

It would be wrong, however, to imagine that Colenso’s writings and *Essays and Reviews* (another source of alarm to early members of the Victoria Institute) represented a particularly new or revolutionary attitude. They were part of a much older process. *Essays and Reviews* was a liberal attempt to cope with problems that had been accumulating for more than thirty years.

The difficulties that presented themselves may be divided into two categories: scientific and philosophical. Sir Charles Lyell’s *Principles of Geology* (1830-33), Robert Chambers’ *Vestiges of Creation* (1844), and A. R. Wallace’s *Annals of Natural History* with a number of other books had paved the way for Darwin’s *Origin of Species*, and the subsequent debate about the early chapters of Genesis.

The philosophical problems facing orthodox Christianity were much greater in the long run. The intellectual problems that had led people like F.W. Newman and George Eliot to contemplate a specifically non-Christian morality, together with the rationalist theology of Baur and Strauss, were obvious threats to orthodox Christian teaching. The idea of

¹ Tregelles never became a member of the Institute although he was invited in 1866 to the discussion of a paper on the subject of comparative philology (*JTVI*, i. 162).

a non-Christian morality was further aided by the Positivism of Comte and the Utilitarianism of Mill. Empiricist logic was cutting at the root of the whole idea of Christian revelation.

The reactions of Christians in England were varied. What might be called the 'Barchester' attitude was widespread. For many clergymen the question was just not relevant because their calling was a social one rather than a spiritual one. Other Christians retreated into the shadow of an unquestioned authority where they could hide. In the case of some of the Tractarians like Newman and Ward, the Roman Catholic Church was 'a port after a rough sea', while in the case of some evangelicals the problems were ignored, and the Biblical study of typology and unfulfilled prophecy became a form of escapism for the person who wanted to forget the suggestion that the Book in question might not be reliable.

There were some, however, who tried to face the issues, and their number included the founders of the Victoria Institute. There were numerous learned societies in London by 1865, but it was the claim of the founder of the Institute that none of them examined the claims of science while retaining any respect for Holy Scripture (*JTVI*, i. 5). This was to be the aim of the founders of the new society in their attempt to face the issues of intellect.

Unlike Newman, who in his *Grammar of Assent* (1870) took refuge in what he called an 'illative' sense as the basis for certainty rather than rational investigation, the founders of the new society believed in the oneness of knowledge, and expected empirical observation and deduction to harmonise with revealed truth. Indeed, Prebendary C. A. Row, one of the early members of the Institute, subjected Newman's book to highly searching criticism and concluded that it was 'impossible for me to express any other opinion of it than that, despite of its many beauties, its tendencies are highly sceptical' (*JTVI*, vi. 74).

The leading mind behind the establishment of the Institute was a man called James Reddie, who became its first Honorary Secretary in 1865. We know very little about him except that he had considerable energy and a very good sense of direction as far as his plans for the Institute were concerned. On Queen Victoria's birthday Reddie circulated some proposals for the formation of a society, whose objects would be: 'to recognise no human science as "established", but to examine philosophically and freely all that has passed as science, or is put forward as science, by individuals or in other societies; whilst its members, having accepted Christianity as the revealed truth of God, will defend that

truth against all mere human theories by subjecting them to the most rigid tests and criticisms' (*JTVI*, i. 30).

The fact that the founders of the Institute believed very strongly that all truth is one came out most clearly in a paper by Reddie entitled 'Scientia scientorum'. Here he argued that the science of sciences 'is the proper correlation of all the various sciences into one grand and consistent philosophy, which will be the interpretation of the nature of things as ordained by the one true God' (*JTVI*, i. 29).

In the same paper Reddie drew attention to the fact that the society was at least in origin part of a defence movement, but he argued that this would not make the Society's investigations less reliable than those of any other, because inquiry always involved some preconceptions and those who trusted science and mistrusted the Scriptures would be just as biassed in the other direction. In a footnote, Reddie mentioned that some of those in sympathy with the Society generally felt that its primary object 'should have been to show positively how scientific discoveries illustrate and corroborate the truths of revelation'. He added that although the Institute originated as a defence movement, 'it by no means follows that this view may not yet prevail in the society' (*JTVI*, i. 9).

Reddie played a very important part in the early years of the Institute, as Secretary and Editor of the *Journal*. He read several papers and always took a lively part in the discussions of the Institute. Such a contribution was useful even though he often seems to have had a tendency to be rather irascible in debate. However he did not always have his own way in the running of the Society. One of his great complaints was that, in the past, science (usually qualified by the epithet—'falsely so-called') had held Scripture up to ransom, and that to resolve differences, the Scriptures had always been re-interpreted. He therefore maintained at the first Ordinary Meeting, that 'it may be considered as settled that we ought not to enter upon what are strictly questions of Scriptural exegesis' (*JTVI*, i. 103). The Rev. Walter Marshall, one of the Society's vice-presidents, who at that meeting was in the chair, disagreed with Reddie, 'I do not see', he said, 'how we can exclude it [the question of exegesis] from our discussions. We have not only to determine whether it is really scientific; but if so whether it is contrary to a fair interpretation of the Word' (*JTVI*, i. 110).¹

¹ One early paper dealing with an exegetical problem was the paper in 1870 (*JTVI*, v. 105) by a vice-president, the Rev. Robinson Thornton, dealing with 'The Numerical System of the Old Testament'. In the same volume of the

It was after the first Ordinary Meeting that the members celebrated the establishment of the Philosophical Society of Great Britain, by retiring to Willis's rooms for an Inaugural Dinner which seems to have been a very festive occasion. The Chairman first proposed the toast of 'The Queen' and then gave 'The health of the Prince and Princess of Wales and the rest of the Royal Family'. In each case the toast was loyally drunk and followed by an appropriate air rendered by a choir of vocalists with piano accompaniment by Mr Maxwell Müller. These in turn were followed by other toasts including 'The Army and Navy and Volunteers', 'The Progress of Christianity at home and abroad', 'Prosperity to the Victoria Institute', and 'The health of the noble Lord who presided' (*JTVI*, i. 71-79).

The noble Lord in question was, as might be expected, the Earl of Shaftesbury, the first President of the Victoria Institute. The entry in his diary for the following day read as follows: 'May 25th.—Yesterday took chair at Inaugural Meeting of Victoria Institute. I dare as it were, to take Heaven by storm, and assume that God, for His blessed Son's sake, will prosper and advance the Institute, founded, as it is, to show the necessary, eternal and Divine harmony between true Science and Revelation.' As a politician and public figure, patron and president of so many causes and societies of Christian foundation, Shaftesbury was unable to spend as much time with the Institute as he would have wished. He was usually in the Chair at the annual meeting, but could not manage much more than that. He made no pretensions to scholarship, and on these occasions would sometimes comment on the learning of the Institute and upon the inappropriateness of his position. As he remarked on an occasion long after the foundation of the society: 'I feel very much like a hen, that has hatched an eagle, which is now soaring aloft beyond my reach' (*JTVI*, xi. 82).

There is little of interest relating to the administration of the Institute except that it should be noted that it was very much in the hands of amateurs. What was called a 'Balance Sheet' is really an 'Income and Expenditure Account' and other signs of inexpertise are apparent. In the third volume of the *Journal* it was announced, in the Annual Report, that the Council had 'found it necessary to dispense' with the services of a clerk who previously had been paid by them to work for the Institute, and in the next Annual Report (1869) it was said that 'The Council

Journal (p. 349) there was what Professor F. F. Bruce has described as 'a sledge-hammer of a reply by another vice-president, the redoubtable Philip Henry Gosse, F.R.S.' (*JTVI*, 87. 149).

regret to have to add that upon an examination of the accounts kept by the former clerk, it was discovered that various subscriptions received by him were unaccounted for'. This somewhat difficult state of affairs does not seem to have lasted for long.

No less than thirteen papers were read to the Institute in its first year, and each paper was followed by lengthy discussion. Frequently the lateness of the hour is given as the reason for the alleged brevity of members' contributions to discussion, and it is hardly surprising that, after a few years, meetings were held in the afternoon instead of the evening, and that members were only allowed to speak for twenty minutes during discussion.

From the start, the Institute was not committed to any particular interpretation of Scripture, and members had complete freedom in the expression of their opinions. The first paper was given by a member of the Council, George Warrington, who maintained, much to the consternation of James Reddie, that evolution was quite compatible with the scriptural account of Creation, and though such views were always in a minority, they always had the opportunity to be expressed.

Apart from a number of notable exceptions, it seems that a large number of the papers read to the Institute, in the early years, were concerned with what may justly be termed as 'phobias'. There was not, at that time, the high degree of specialisation in scientific learning that there is today, and consequently people were inclined to dabble in subjects of which they had little knowledge. This meant very often that they did not really understand whether the evidence before them proved a theory or not. One of the earliest 'phobias' that is found in the *Journals* of the Institute is the fear of any theory of the igneous origin of primary rocks. In numerous papers and discussions, the idea that the earth might have had a nebulous origin was virtually laughed out of court, evidently because members of the Society were afraid of it.

Another 'phobia' entertained by certain members was the hypothesis of the 'conservation of energy'. In a paper by the Rev. J. M'Cann on 'Force and its Manifestations', delivered in 1872, the author, at the very outset of his address, said that this hypothesis, together with that of the 'Perpetuity of motion', was not an abstract reasoning devoid of interest to the moralist or the theologian. Both hypotheses, he maintained, were 'reasonings, if such they may be called, that would land him [the moralist or theologian] where he by no means wishes to go. In Biology they lead to Evolution, in Theology to Pantheism, in Philosophy to Materialism and in Morals to Necessitarianism'.

Similarly with evolution and the idea of development, the majority, especially the less critical of them, seem to have opposed it long before they really examined the evidence, because they were afraid of the Pelagianism to which such a theory might lead them, although there were always some like J. H. Gladstone, the Rev. G. Henslow and others who followed Warrington in maintaining that evolution was compatible with Scripture. Frequently, without realising it, members found themselves attacking the philosophy of Darwinism and its supporters, rather than sifting the evidence for evolution. Fortunately, there were always a critical few who questioned the validity of arguments regardless of whether they would support a Biblical position or not.

During the first twenty years of the Institute, the most popular subject was Geology and along with it Anthropology as both subjects related to the origin and age of man and the processes of creation. One of the most amusing papers was one given in 1869 by W. Macdonald, Professor of Civil and Natural History in the University of St Andrews. His subject was 'Man's place in Creation; Geologically, Chronologically Zoologically, Ethnologically, and Historically considered'. The paper was one enormous piece of speculation (as members were not slow to point out) suggesting that Polynesians, Patagonians, Obongo dwarfs, Yacoots, Mohawks, Chippeways, Mongols, Finns, Basques, Teutons and Tartars (amongst many others) were created in stages on the sixth creative day (Gen. i. 26) and that Sabbatic Adam was created on the seventh day (Gen. ii. 7-22), from whom were descended Armenians, Arabs, Chaldeans, Hebrews, and Abyssinians. From there the author went on with the aid of a most fertile imagination to consider the date, contents and route of Noah's ark. 'We may suppose that the ark floated upon the surface of the ocean by way either of the Straits of Gibraltar, or on the Sea of the Sahara . . . or it may even have been carried over the Landes into the Mediterranean and so Eastward . . . near the peak of Mount Ararat' (*JTVI*, iv. 212). The audience gave the Professor short shrift, and the upshot was that, at the end of the meeting, he withdrew his membership from the Society saying 'you have dealt me rather hard measure, but I will take care I never expose myself to it again'.

Very few of the papers were quite as comic as that and many of them were extremely learned. There were for instance those given by one of the early vice-presidents, the Rev. Walter Mitchell. It is hard to imagine how he read his paper on 'The Geometric Isomorphism of Crystals and the derivation of all other forms from those of the Cubical system'.

Almost the entire paper is in Algebraic notation, and the diagrams at the end of the paper are a masterpiece of printing. It is hardly surprising that the *Journal* reads: 'A discussion followed. . . . This discussion having been of a very general character, it has not been found necessary to insert it' (*JTVI*, ii. 448).

Such papers make it quite clear that the Institute was a learned society interested in knowledge almost for its own sake, and its aims were only apologetical in so far as it wanted to harmonise one science with another. Its status as such was recognised quite soon, and by 1875 the Institute was exchanging Transactions with almost all the leading learned societies in London (*JTVI*, viii. ix).¹ Its horizons too had extended as it now had honorary foreign correspondents, one of whom was the textual scholar Tischendorf of Leipzig.

One cannot help wondering occasionally whether the pastoral work of some of the clerical contributors suffered as a result of their learning. Frequently half of the papers in one year's journal were by clergymen, and as often as not the subjects are far from theological or even philosophical. On the other hand, it was often these men who came to subjects in the most critical and unprejudiced spirit, and free from preconceptions. The Rev. J. H. Titcomb and the Rev. W. J. Irons, a Prebendary of St Paul's, and Bampton Lecturer for 1870, were in this respect an important influence in the Institute. Neither of them had a brief for 'Darwinism', but both criticised very strongly a paper by C. R. Bree on 'Darwinism and its effects upon religious thought', for the simple reason that it assumed that Darwinism was 'in a *priori* antagonism with revelation'. They preferred to insist that it was 'in a period of probation' (*JTVI*, vii. 270-277).

Prebendary Irons was perhaps the most distinguished member of the Institute at this time, in the realm of philosophy. It is noticeable in the early years of the Society that philosophy was a comparatively small concern of the Institute. Members would debate Geology and Evolution for hours, sometimes having to resume a previous debate on another day. With philosophical subjects the number of competent debaters was limited. There were some able men like Irons, Prebendary C. A. Row, the Rev. Robinson Thornton, Headmaster of Epsom College, and

¹ This tradition has been maintained on various different occasions, and as late as 1938, the *Journal* of the Institute (Vol. lxx) included two papers which aroused no religious comment at all, being of a purely scientific nature. They were 'Difficulties underlying the Einstein-Eddington conception of curved space' and 'Synoptic Meteorology: The basis of weather forecasts'.

Prebendary Currey, Master of Charterhouse. It is immediately apparent that these men had fine, philosophical minds. They dealt interestingly with such topics as Mill's *Essay on Theism*, Newman's *Essay in aid of A Grammar of Assent*, *The Logic of Scepticism*, and *The Principles of Historical Criticism*. Such subjects, however, had a limited appeal. The discussions following two papers by James Reddie are an indication of where the interests of the early Institute really lay. His paper 'On Geological Chronology, and the Cogency of the arguments by which some Scientific Doctrines are Supported', was followed by some thirty-five pages of discussion, whereas, his paper on 'Utilitarianism' produced only four and a half.

In 1878 the annual address was given by the Rev. Principal J. H. Rigg and was entitled 'The present Position of Christianity and the Christian Faith in this Country' (*JTVI*, xiii. 50). It was an interesting paper and traced the progress of four different movements: first the Wesleyan revival; secondly, the Evangelical movement stemming from Simeon's Cambridge; thirdly, the philanthropic work that began with Wilberforce which was carried on 'by a host of noble men and devoted women—the most distinguished of all these ministers of mercy in the influence he has been able to exercise, having been . . . the honoured nobleman who now presides over this Institute'; and lastly the High Church Revival of the Tractarian Movement which, Rigg said, had been particularly effective in agricultural areas and amongst some of the lowest classes. The survey was reasonable enough, but the premises upon which it was based were questionable. The author maintained at the start of his paper that 'the position of Christianity in a country is not to be estimated according to the negative gauge of the absence of professed unbelief, but by the positive gauge of the amount of fruitful Christian energy and life among the people'. This premise meant that Dr Rigg failed to face certain facts. The Religious Census of 1851 had revealed how few people ever attended a place of worship, and the growth of open infidelity should have been a source of concern. Instead the writer derived comfort from the situation. 'Sixty years ago,' he maintained, 'more anti-Christian energy, in proportion among the educated classes, went into vice and fashionable frivolity than now. To-day our social anti-Christ develops more energy in the direction of critical infidelity; of intellectual rebellion against "the truth as it is in Christ Jesus".' He was untroubled by the fact that much of the morals of the Victorian age were unbelieving morals and he preferred to ignore the gross immorality of London which was recognised for what it was

by some contemporary writers but was papered over by the façade of Victorian respectability. After surveying the intellectual scene, the author could conclude: 'When we look back to the age in which Berkeley and Butler lived, we do not wonder that men should have been tempted to despair of Christianity. But how great and how reassuring is the contrast now!'

From the speeches that followed the paper, it seems that the Victoria Institute was at the time being borne along on a great wave of Victorian optimism, untroubled by the lack of impact made by Christianity upon the world at large. One speaker remarked: 'The hunting and sporting parson of that day in scarlet and buckskin would now be an anachronism, and probably would not be tolerated.' He seems to have assumed that a scientific or geological parson *would* be tolerated.

It may be felt that this incident has been treated at too great a length, but this has been deliberate, as the question is a significant one and bears upon the problem of what was the role of the Victoria Institute. As far as generalisations are possible it is probably fair to say that the early Institute failed to face the challenge of unbelieving philosophy as much as it failed to recognise philosophical unbelief. As a result we find that around the year 1880 the activities of the Institute began to find a different sphere of interest. Rather than argue with the infidel in philosophical terms, the Institute seemed to be more concerned about the historical origins of the Bible.

In 1799 a French soldier found, near the mouth of the Nile, an inscription generally known today as the Rosetta Stone. It was a trilingual decree in hieroglyphic and demotic Egyptian and Greek, and was handed over, under Article XVI of the Treaty of Capitulation when the French were defeated in 1801, to the English, and eventually put in the British Museum. It was this stone that provided Champollion with the key to the decipherment of the numerous hieroglyphic inscriptions of ancient Egypt. Nearly fifty years later, in 1847, an English soldier, Sir Henry Rawlinson, managed, by a considerable feat of courage, to obtain a copy of the famous inscription on the Rock of Behistûn in Persia. This also was trilingual but, unlike the Rosetta Stone, was in Persian, Scythic and Babylonian. Rawlinson has often been described as the father of Assyriology. His decipherment of the Behistûn writing provided the key to the cuneiform alphabet, and considerable impetus to archaeological studies generally. It will thus be seen that the subject **that** was to occupy many meetings of the Victoria Institute, especially after 1880, was in many ways virgin soil.

Egyptology had occupied the Institute on more than one occasion. In 1871 W. R. Cooper, the secretary of the Society of Biblical Archaeology, had read a paper on 'Serpent Myths of Ancient Egypt' (*JTVI*, vi. 321) and in 1878 the Editor of the *Journal of Transactions* wrote: 'Last year we referred to the desirableness of a thorough inquiry being undertaken with the aim of gathering from various sources, especially from ancient monuments, information that would throw greater light upon the earliest days of Chaldean and Egyptian history, an enquiry including careful and systematic exploration in Assyria and Egypt; and it is pleasing to find that in Assyria a commencement has been made by one of the Institute's members, Mr Hormuzd Rassam' (*JTVI*, xii. x-xi).

Rassam was the man who took the Victoria Institute by storm on the 2nd of February 1880 when he read a paper on 'Recent Assyrian and Babylonian Research' (*JTVI*, xiv. 182). The vice-president, who introduced the speaker very briefly, was interrupted no less than three times by enthusiastic cheering at the prospect of listening to this remarkable man. Rassam was an Arab Christian, born at Mosul in 1826, who had helped Sir Austen Layard in his early excavations at Nineveh in 1845. He had then come to study at Oxford and offered his services to the British Museum. He returned to his own country on three archaeological expeditions to excavate Nimrud, Kuyunjik¹ and Nineveh. Naturally such a figure was somewhat exotic in Victorian eyes, added to which there was the lustre of patriotic devotion, as Rassam had been sent on service for the British Government to Abyssinia, where he had been imprisoned until freed by the victory of Sir Robert Napier in 1868.² He gave four papers to the Victoria Institute, and at first there were few who could discuss them in view of his

¹ On these expeditions rivalry between the French and British was very great as it had been between Layard and Emile Botte. At Kuyunjik in 1853, anticipating that the excavations of Vincent Place would bring his French rival to some important discoveries, Rassam got his own natives to dig by night a secret tunnel towards the site, starting from a different position. By so doing he forestalled his rival and uncovered the famous bas-reliefs of Ashurbanipal's Lion Hunt, finding in the chamber, heaps of tablets from the King's Private Library, all of which are now in the British Museum.

² An original letter written by Rassam at the time of the incident was published recently in an article entitled 'Letters from Magdala and Massawa', by A. M. Honeyman (*Bulletin John Rylands Library*, xlv. 2). Two fellow-prisoners of Rassam mentioned were Lieutenant Prideaux a distant nephew of S. P. Tregelles, and the Rev. H. A. Stern, who was a member of the Victoria Institute, and whose suffering Rassam mentioned in the discussion after his first paper to the Institute.

learning. Before long, however, the Institute became the scene of discussions between the most distinguished archaeologists of whom Theophilus Pinches, Colonel Conder, Sir Wallis Budge, W. St. Chad Boscawen (the assistant in the British Museum who, when he was dismissed, became a wandering beggar in Syria and was eventually sent back to England at the expense of the British Government), Professor A. H. Sayce, and Professor (later Sir) Flinders Petrie are the most well known.

Theophilus Goldridge Pinches, who wrote the article on Rassam in the *Dictionary of National Biography*, and Archibald Henry Sayce both became honorary Corresponding Members in 1889. Pinches was a man who denied himself the profitable career that he could have enjoyed as an engraver, and instead lived on the meagre income of an assistant in the British Museum. He spent his life deciphering, transcribing and publishing numerous cuneiform texts. Not being a traveller, he was free to assist the Victoria Institute a great deal, contributed over a period of thirty-eight years no less than twenty papers and figured a great deal in discussion. Some cuneiform inscriptions are still to be found most conveniently in the papers that he gave to the Institute. Far more impressive a career was enjoyed by Sayce, Professor of Assyriology at Oxford from 1891-1919. Having a very weak constitution, this brilliant scholar came to England, only for a short time each year, to deliver his annual lecture at Oxford. The rest of the time, on the advice of the doctor, he spent in the East. This did not inhibit his work, nor did his studies suffer. He was able to observe many excavations in progress. He copied the Siloam Inscription (standing in water up to the waist), and was the chief pioneer of the 'rediscovery' of the Hittite nation, long before Winckler's discoveries in 1905, or Puchstein's excavations in 1907, at Boghaz Keui (See Sayce, *Monuments of the Hittites*, 1881). Known to the natives as 'the mad priest', 'father of spectacles', and 'lord of the split tail' (the last referring to his clerical coat), his knowledge of the East was enormous and it was the great sorrow of other Assyriologists that in his later years he devoted himself to the study of, among other things, Polynesian civilisation, the cults of Java, Christological Buddhism, and Nestorian missionaries to China. Unfortunately he never contributed papers on these subjects to the Institute. His only paper was in 1889 and it dealt with 'The Cuneiform Inscriptions of Tel el-Amarna' (*JTVI*, xxiv. 12). Even then it had to be read by someone else who was very diffident about doing so because, he said, 'it is not only the subject matter that we look for and admire in his composition, but

his well-known rhetoric and delivery, which always charms irrespective of the facts with which he deals and the secrets which he—a master explorer—brings to light.' However the Professor was a most faithful member of the Institute and as late as 1924 he contributed to discussion.

Although Biblical archaeology was the Institute's chief interest from 1885-1910, this was by no means the only subject investigated by members. What is noticeable is the fact that it aroused a much larger volume of discussion than other subjects. There were papers on biology and anthropology as usual, and an Irish geologist, Professor Edward Hull (later the secretary and Vice-President of the Institute), gave over a period of some twenty-five years almost as many papers on geological subjects, the first being 'Notes on the results arrived at by the Palestine Exploration Fund¹ geological expedition to Petra' in which Hull had been involved. Other papers dealt with comparative religion and foreign cultures. Two important subjects that received occasional treatment but which aroused little discussion were physics and philosophy.

In 1880, two papers were read to the Institute by men who later became presidents of the society. One of them was George Gabriel Stokes. This brilliant mathematician had lost his Cambridge fellowship in 1857 when he married, but regained it under the new legislation in 1869. He was the first person since Sir Isaac Newton to be both Secretary and President of the Royal Society, and Lucasian Professor of Mathematics at Cambridge. As Member for the University he sat in Parliament from 1887 to 1892, was created a baronet in 1889 and elected Master of Pembroke College in 1901. His subject when he addressed the Institute in 1880 was 'The bearing of the study of science upon religious ideas', and his paper received a little discussion. However, after he became President of the Institute in 1886, the Professor's papers on 'The Luminiferous Ether' (1894), 'The perception of light' (1895), and 'Röntgen Rays' (1896), provoked little more than respectful admiration. The only other member really qualified to comment on the President's papers was another distinguished physicist, Lord Kelvin (inventor of the Kelvin scale) who later contributed a paper on 'The age of the earth as an abode fitted for life' (*JTVI*, xxxi. 11).

A similar state of affairs occurred in the years from 1926 to 1936 when another President, Sir Ambrose Fleming, gave a series of brilliant Annual Addresses on such subjects as 'Relativity and Reality' (1928),

¹ The Pal. Expl. Fund also celebrates its centenary in 1965 and its investigations have always been of interest to members of the V.I.

'Matter, energy, radiation, life, and mind' (1929), 'Creation and Modern Cosmogony' (1930), 'Light' (1931), and 'Philosophical Conceptions of Modern Physical Science' (1936). There were few members of the Institute in a position to comment upon such papers, and it is tempting to conjecture whether the tradition that there is no discussion after an annual address originated in the learning of Stokes and Fleming.

On the other hand Fleming was by no means confined to scientific subjects, as he could speak quite as lucidly on the case for the Garden Tomb in Jerusalem as the site of the Resurrection (1929), the report of the Archbishops' commission on Christian doctrine (1939), and the Visions of Nebuchadnezzar and Daniel, and the seventy-sevens prophecy (1941). Fleming's great gift was to be able to present a complex subject like relativity, or the seventy-sevens prophecy, in terms that a layman could understand if he was prepared to think, and in addition he would draw some philosophical conclusions from the discoveries he was describing. More than once has this been the privilege of the Victoria Institute, and in this case it was a great honour to have such a distinguished man of science as its president, though Fleming would have strongly denied the fact.

In considering the scientific contribution of the Institute, we have jumped from 1906 to 1926 and after. In the period between those dates, there was a growing interest in astronomy, which is apparent in the work of the Institute. Following in the footsteps of Sir Robert Ball who was an honorary Correspondent until his death in 1913, a number of eminent astronomers delivered papers to the Institute. Sir David Gill spoke on 'The Sidereal Universe' (*JTVI*, xliii. 175). Dr Andrew Crommelin gave a paper on 'The Return of Halley's Comet' (*JTVI*, xlii. 18), and other subjects were treated in papers by Dr Sydney Chapman, Professor Alfred Fowler, Professor A. S. Eddington, and Sir Frank Dyson, the Astronomer Royal. An indication of the Institute's interest in the subject was the appointment of Edward Walter Maunder in 1913 as secretary. Maunder had been Superintendent of the Solar Department at the Royal Observatory, Greenwich, had written a number of standard works on astronomy, and was also Secretary of the Royal Astronomical Society, for a number of years. He gave nine papers to the Victoria Institute on a variety of subjects, and at the commemoration meeting in 1916 he maintained that the enormous progress of the previous fifty years had a definite bearing upon our knowledge of God, as such discoveries 'teach the lesson which St Paul preached two thousand years ago: "The invisible things of God from the creation

of the world are clearly seen, being understood by the things that are made, even His eternal power and Godhead" (*JTVI*, xlvi. 173).

Though today the scientific papers of the Institute may be of less value than perhaps some of the other papers, they were still a useful contribution as they were the product of careful research by fully qualified men.

The other paper read in 1880 by a future president of the Institute was on 'Evolution and Moral Science, being observations on Mr Herbert Spencer's "Data of Ethics"'. It was the work of the Rev. Henry Wace, who at the time was Professor of Ecclesiastical History in King's College, and later became Dean of Canterbury and one of the editors of *The Dictionary of Christian Biography*. His predecessor as president had been the Lord Chancellor, the Earl of Halsbury. Though a distinguished lawyer and Christian, Halsbury never read a paper to the Institute, yet he took a great interest in its activities. When he died in 1921 at the age of ninety-eight he was succeeded by Dean Wace who was only eighty-five. Though President for only a short time, Wace was a most faithful member of the Institute. His early contribution had been on the philosophical side of its work, which at the time was its weakest, and the most neglected. He gave three papers on aspects of the study of ethics and in 1909 an interesting paper on 'Authority' in which he concluded: 'In a word the only indefeasible authority in the world is that of the will of God, which is manifested through various sources, such as the church under the guidance of the Scriptures, the state and the individual conscience' (*JTVI*, xli. 230). This provoked as might be expected a strong rejoinder from an expert on the subject of secular authority, Sir Robert Anderson, Assistant Commissioner of the Metropolitan Police. His ecclesiastical origins were somewhat different from the Dean's and he strongly rejected the idea that the will of God was manifested through the Church.

Wace's later papers concentrated upon the principles of Biblical criticism, as he was greatly disturbed by the general acceptance of the claims of the German critics which he maintained were quite unproven. In his interest in philosophy, however, the Dean was not alone. The Rev. J. J. Lias, Chancellor of Lincoln, had dealt with philosophical subjects in a number of papers¹, mostly while Wace was a member of the Institute. Others like Archdeacon Beresford Potter and Sydney T. Klein are instances of an increasing interest in this sort of discussion,

¹ One of these is referred to later on p. 180.

which was to be maintained in later years (1925-35) in a series of papers by the Rev. Charles Gardner.

As a result of this, a number of philosophers, like Clement C. L. Webb and the Rev. A. R. Whateley, were invited to address the Institute. Perhaps the most distinguished of these was Dean Inge. On two occasions he gave a paper, the second of which—'Freedom and Discipline', is a masterpiece of concise and provocative thinking¹ (*JTVI*, lii. 244).

The First World War marked, in more than one way, a significant point in the history of the Institute. Fewer members were free to attend and the *Journal* began to get considerably more slender. Numbers began to improve in 1920 but only a few took part in discussion. Frequently the same people would say the same sort of thing after a paper whatever the subject of it had been. This did not go unobserved, and in the conclusion of the Annual Report for 1924 (*JTVI*, lvii. 5) the Council remarked: 'It is a great relief and interest when new voices are heard, and the Council hope that in the future this may be the case.' Their hopes were only partially fulfilled. Increasingly, discussion was less informed and restricted frequently to one or two clergymen, a number of Brethren, and a galaxy of military and naval gentlemen. There were exceptions of course, especially in the archaeological side of the Institute's activities, but a number of the papers were by amateurs and show evidence of being so.

The First World War was in progress when the Institute celebrated its Jubilee. If there had been complacency in 1879 it had now disappeared. Optimistic ideas of progress had been shattered by the Great War and the subject of Germanism was discussed more than once. Throughout the jubilee addresses there is a note of concern, disturbance, and general dissatisfaction with the world around. One can discern an element of missionary zeal in the outlook of the Institute. In 1919 certain lectures read to the society were published in pamphlet form as 'Tracts for New Times', and in the Annual Report for that year the Council concluded: 'Since the publication of the last report the peace treaty has been signed and the nations are nominally friends once more. But there is no truce in the war with the powers of evil. Unbelief in the form of destructive criticism is unwearied in its efforts to discredit the authority of the Holy Scriptures, for the defence of which the Victoria Institute stands . . .' (*JTVI*, iii. 6). This was not a false optimism but genuine recognition of the problems facing the Church militant.

¹ This paper is referred to at a later stage p. 180.

One of the great names of the Victoria Institute in the post-war period was that of Alfred Taylor Schofield, who contributed sixteen papers on a variety of scientific subjects with particular interest in medical topics. An Associate for thirty-five years and Vice-President for nine, Schofield left the Institute the richer for his work. He has recently been described in a Christian magazine as 'A genial-spirited man, of a liberal mind, large hearted, and the friend of many who were known for their Christian service'. He provided an interesting link with the earliest days of the Institute, as he knew Philip Gosse, one of the two foundation Vice-Presidents; his description of Gosse was considerably at variance with the notorious account of Sir Edmund Gosse, in *Father and Son*.

Schofield was accompanied in his interest in medical subjects by a number of other members. There was Dr Amand Routh who gave a paper on 'Motherhood' (*JTVI*, liii. 71), Dr David Anderson-Berry who treated the subject of 'Experimental Psychology' (*JTVI*, liii. 12), and Dr Edwin Ash who addressed the Institute on 'Psychotherapy' (*JTVI*, lvii. 146). Medicine and Psychology have remained a fruitful ground for investigation and are still dealt with by members of the Institute.¹ It is therefore fitting that one of the four prize essays offered by the Institute should be named after Dr Schofield himself.

Before the first war Church History had been growing in popularity as a subject for discussion. In 1909 Arthur Galton took as his subject a contemporary question—*The Present Position of Catholics in France*—as a contribution to the study of the question of Church and State (*JTVI*, xli. 173). A year later the Rev. H. M. Gwatkin, Dixie Professor of Ecclesiastical History, was invited to address the Institute and his subject was *Arianism and Modern Thought*. The Professor suggested that the unitarian position of Arianism stemmed from a view of God as one cut off in his might and power from mankind, and therefore was suitable for the despotisms of the Roman empire and Islam. The truly Christian concept of government was one where the common good was the end of government, and the ruler concerned for the good of his subjects. There was no mention of the growing threat of the German empire, but it is difficult to forget that the Arian heresy was for a long time the German heresy (*JTVI*, xlii. 145). Another historian who addressed the Institute on several occasions was Professor F. F. Roget of the University of Geneva, who wrote three biographical studies of Swiss Protestants in

¹ The late Ernest H. White, M.B., B.S. (Vice-President) who died in May 1964 was one of the most recent members to maintain this tradition.

the nineteenth century, Frederick Godet, Alexandre Vinet, and Ernest Naville.

One of the questions that had exercised the early members of the Institute was how far Scriptural exegesis was the real business of the society. The growing verdict of the twentieth century was in favour of purely Biblical studies. The trend began early in the century, and can be seen in the great amount of interest shown by members in the three papers by a devoted member of the institute, Lt.-Col. Mackinlay, on the writings of St Luke (*JTVI*, xliv, xlix, li). Other people took up the general Biblical questions of authorship, the relationship of the synoptic Gospels to one another, the original language of Matthew, and even questions of prophecy.

Such studies went hand in hand with textual studies. In 1911 Mrs A. S. Lewis, who in 1892, with her sister, had discovered the Sinaitic palimpsest of the gospels in Syriac, embodied some of the fruit of her researches in a paper to the Victoria Institute on 'The Genealogies of Our Lord' (*JTVI*, xliv. 9). In the same year Professor George Milligan of Glasgow University gave a paper on 'The Greek Papyri, with especial reference to their value for New Testament Study' (*JTVI*, xliv. 62). The whole question of textual criticism which these papers touched upon was taken up by Sir Frederick Kenyon over twenty years later. An acknowledged expert in the subject, he was able to provide some assessment of the theories of Streeter and Kirsopp Lake.

The study of the text of the Bible was naturally related to the archaeological studies which had always been the most important contribution of the Victoria Institute. The Annual Report for 1924 contains the following observation 'The council are sometimes reproached that they fail to undertake papers on the many ethical and philosophical problems that press upon our attention. . . . The council does not think it lost time to turn aside now and again from more strenuous problems to questions of scientific and archaeological discovery . . .' (*JTVI*, lvii. 5). Certainly as far as archaeological studies were concerned, it was scarcely a question of 'turning aside' to them. The Institute had fully maintained the interest dating back to the early papers of Rassam, Sayce and Pinches.

Archaeology affecting the period of the New Testament had been the subject of the contribution of Sir William Ramsay, whose papers had dealt with discoveries in Asia Minor (*JTVI*, xxxix. 201; xli. 36). Another person whose subject lay in the same period was the Rev. Prebendary H. E. Fox (Vice-President from 1918-26). His paper was on 'The

inscriptions and drawings from the Roman Catacombs' (*JTVI*, xlvi. 103).

The relevance of archaeology to the Old Testament continued to be discussed by two of the older generation, Sayce and Pinches, whom we have mentioned before. Sir Flinders Petrie, who had become an honorary Corresponding Member in 1903, and had given the Annual Address, in that year, on his discoveries in Egypt (*JTVI*, xxxv. 9), read another paper to the Institute in 1929 on 'The Materialization of Old Testament History' (*JTVI*, lxi. 260). A year later Professor J. Garstang addressed the Institute on 'Joshua and the Higher Critics' (*JTVI*, lxii. 234).

Other papers were read by a number of less well-known members like the Rev. A. C. Robinson, the Rev. D. E. Hart-Davies, and E. W. B. Chappelow. At a later date came contributions by Air-Commodore P. J. Wiseman, and Professor Rendle Short. These were strictly non-professional, nevertheless important because their discussion of these subjects was informed and therefore useful.

It was natural enough that the two presidents who followed Sir Ambrose Fleming should be associated with Archaeology. Sir Charles Marston (President, 1941-46), who with his ample fortune encouraged excavations at a number of Biblical sites, had first participated in such work in 1924 when he went with an expedition to Jerusalem organised by the Palestine Exploration Fund. He had helped to finance other work including the excavations at Lachish and at Jericho, both of which he described in a paper to the Institute in 1934 (*JTVI*, lxvi. 124). His outlook was a very different one from that of his successor, Sir Frederick Kenyon, who was Director and Principal Librarian of the British Museum from 1909-30. Kenyon was a professional where Marston had been an amateur. Kenyon believed that Christians should meet left-wing criticism and defeat it on its own grounds rather than try, as Marston had tended, to prove the Bible from Archaeology. Indeed Kenyon went further and said that he thought it was right to recognise that critics were 'legitimately raising questions which require investigation' (*JTVI*, lxxix. 227). Kenyon, like Marston, addressed the Institute on the subject of archaeological discoveries, but he dealt with those at Ras Shamra and at Mari (*JTVI*, lxxiii. 81). His real field was, as was mentioned before, textual criticism, and his later addresses were on the problems of Biblical criticism.

Just as the Victoria Institute had suffered from the upheaval of the First World War, so with the second. Meetings again had to be cancelled and papers had to be merely circulated instead. Similarly the *Journal* had

to be reduced in size. But the Institute survived to face yet another period of changed society. In the last twenty years the structure of English social life has changed enormously. Fewer and fewer people can afford to spend much time or money in amateur research, whether it is in Geology, Astronomy or Archaeology. More and more has specialisation set in with the result that we depend upon the professional for information on these subjects. With such changes the Victoria Institute has had to change its methods. Since 1958 there have been far fewer meetings and the *Journal* has become the vehicle for both papers and discussion. In a sense this has become inevitable when time is so short that reading has to take the place of attendance at a meeting. It is to be hoped that *Faith and Thought* will be as well supported as the old *Journal of the Transactions* was in the past.

The variety of the subjects under discussion in the past hundred years at meetings of the Victoria Institute is quite astonishing. It is an indication that the members' beliefs in the oneness of truth were something real and that they believed that all true knowledge is ultimately the knowledge of God in His creative wisdom and glory.

It is striking, however, how certain subjects discussed in the earlier years of the Institute are still with us today, usually accompanied by the same differing attitudes. For instance, the problem faced by the Chancellor of Lincoln in 1878 in his paper 'Mr Matthew Arnold and Modern Culture' (*JTVI*, xii. 269) is strikingly similar to the problem posed by the Bishop of Woolwich today. These words describing Matthew Arnold's proposals sound strangely familiar: 'Christianity is to exist still . . . but she must abandon her creeds—all of them—as the product of "popular" or "theological science" and she must content herself with that exposition of "the stream of tendency whereby we fulfil the law of our being . . ."' The vocabulary of 'images' and 'demythologisation' is not so far away.

When Dean Inge, after the first World War, spoke on 'Freedom and Discipline' (*JTVI*, lii. 244) he remarked, at one point, 'We ought not to be surprised that the Vatican was backing Germany all over the world'. Today, with another world war behind us, the recent play by Rolf Hochhuth, *The Representative*, has produced a storm of discussion simply because it made the same point that Dean Inge made some forty years ago.

There was a time when critics maintained that the Pentateuch was not reliable because there was no means of writing in the early times of which it speaks. Over fifty years ago, however, Sir Flinders Petrie

discovered the tablets at Tel el-Amarna which proved that such writing materials did exist. Not so long ago the Bishop of Birmingham maintained that the New Testament documents were forgeries of later centuries. Sir Frederick Kenyon exposed the Bishop's criticism for what it really was (namely 'imbecility of scholarship' beyond the bounds of 'bibliographical probability') by pointing to the overwhelming evidence of the papyri. In both instances unsupported hypotheses were demolished by facts.

It is difficult to conclude otherwise than that the needs of today are not ultimately so very different from the needs of an earlier generation, and that the aims of the Victoria Institute are as relevant today as they were a century ago even though our methods and emphases may have changed.

John the Forerunner

MANY of the speakers who have addressed the VICTORIA INSTITUTE during the hundred years of its existence have dealt with various beginnings and their problems—the beginning of the material universe, the beginning of life, the beginning of the human race. Most of the papers which I have read to the INSTITUTE since my first communication on ‘The Sources of the Gospels’ in 1943 have been concerned with a much more recent beginning—the beginning of Christianity. For a Society which, according to its constitution, is committed to ‘the Christian religion as revealed in Holy Scripture’, this is not an irrelevant field of study. It seems quite proper, therefore, that in this centenary paper I should look at a phase of Christian origins to which I have not previously invited the attention of the INSTITUTE.

Of all the religious movements in Palestine on the eve of the coming of Christianity none is more directly related to Christianity itself than the ministry of John the Baptist. All four Gospels preface their narrative of the ministry of Jesus with a brief summary of the ministry of John, and the evidence of Acts suggests that this reflects primitive Christian preaching. In Acts both Peter and Paul are represented as introducing their accounts of Jesus’ activity with a reference to the baptism of John; and when the question arises of filling the vacancy in the apostolic college created by the defection of Judas Iscariot, it is laid down that the man to be chosen must be one of those ‘who have accompanied us during all the time that the Lord Jesus went in and out among us, beginning from the baptism of John’ (Acts i. 21 f.).

John’s place in the Gospels and Acts is due to the part that he played as Jesus’ forerunner; but his ministry made a deep, if short-lived, impression in its own right on many of the Palestinian Jews.

Outside the New Testament, our only reliable source of information about John is a passage in the *Antiquities* of Josephus, where he narrates the defeat of Herod Antipas by his outraged father-in-law, the Nabataean king Aretas IV, whose daughter Antipas had divorced in order to marry Herodias. Josephus goes on:

Now some of the Jews thought that it was God who had destroyed Herod’s army, and that it was a very just punishment to avenge John, surnamed the Baptist. John had been put to death by Herod, although he was a good man, who

exhorted the Jews to practise virtue, to be just one to another, and pious towards God, and to come together by baptism. Baptism, he taught, was acceptable to God provided that they underwent it not to procure remission of certain sins but for the purification of the body, if the soul had already been purified by righteousness. When the others gathered round John, greatly moved as they listened to his words, Herod was afraid that this great persuasive power over men might lead to a rising, for they seemed ready to follow his counsel in everything. Accordingly he thought the best course was to arrest him and put him to death before he caused a riot, rather than wait until a revolt broke out and then have to repent of permitting such trouble to arise. Because of this suspicion on Herod's part, John was sent in chains to the fortress of Machaerus . . . and there put to death. The Jews therefore thought that the destruction of Herod's army was the punishment deliberately sent upon him by God to avenge John.¹

According to Luke, John was a 'wonder-child', born to a priestly couple in their old age, who spent the years before he began his public ministry 'in the wilderness' (Luke i. 80)—presumably the wilderness of Judaea, since his parents' home was in the Judaeian hill-country. Whether his wilderness life was solitary or spent in community with others we are not told. More especially since the discovery of the Qumran texts it has been frequently suggested that he was brought up in the Qumran community or in some similar Essene group. This can be neither proved nor disproved. John's wilderness retreat would not have been far from Qumran, and a young man of priestly birth might have found something specially congenial in a movement which attached such importance to the maintenance of a pure priesthood.

But, whatever substance there may be in these speculations, the ministry by which John made his mark cannot be brought within an Essene framework. His ministry was distinctively a prophetic ministry. When 'the word of God came to John the son of Zechariah in the wilderness' (Luke iii. 2), as it had come to many a prophet in earlier days, that word proclaimed the necessity for something different from the teaching or practice of Qumran.

To John as to the men of Qumran and other Essenes and related groups, the wilderness was the expected place of the divine epiphany. But John chose for the inauguration of his ministry the most public part of the wilderness of Judaea, the crossing of the Jordan north of the Dead Sea, where traffic between Judaea and Peraea passed this way and that; and he addressed his message to all who would hear, including the 'men of the pit' from whom the pious sectaries of Qumran swore to keep aloof. If John had previously been associated with a community

¹ *Antiquities*, xviii, 116-119.

like that of Qumran, now was the time to break with his former associates and follow a new path. The multitudes which flocked to the Jordan valley to hear him from all parts of Palestine did so because men recognised in his preaching a note of authority the like of which had not been heard in Israel for centuries: 'all held that John was a real prophet' (Mark xi. 32). It is not as a disciple of any other Teacher of Righteousness, but as a new teacher of righteousness with his own following of disciples, that we know the historical John the Baptist.

John's preaching was eschatologically based. The day of judgment, he proclaimed, was about to dawn. The judgment would be executed by the 'Coming One', for whom John was preparing the way. The Coming One fulfils the function assigned to Daniel's 'one like a son of man' (Dan. vii. 13 ff.), although John is not recorded as using the designation Son of Man. Yet, when the Fourth Evangelist records John as speaking of the pre-existence of the Coming One—'He who comes after me ranks before me, for he was before me' (John i. 15, 30)—there may be some contact with the Son of Man of the *Similitudes of Enoch*, whose name was named in the presence of the Lord of Spirits before the sun and the stars were made (1 Enoch xlvi. 3).

The Coming One would hew down all the fruitless trees—all those whose lives did not produce the fruits of righteousness. Or, to change the figure, he would treat the world as his threshing-floor, winnowing the wheat from the chaff. The wheat—the righteous—would be gathered into his granary, but the chaff, blown away by the wind, would be swept up and burned. Therefore, let Israel repent. Before this coming judge the merits of the fathers would not avail: descent from Abraham was irrelevant. Nothing would meet the challenge of the hour, nothing would avert the wrath to come, but sincere repentance. And this repentance, to be effective, must be expressed by baptism.

John's picture of the Coming One has also been compared with the Qumran expectation that at the end-time a man would appear in whom some of the community's most characteristic functions would be embodied—a man who in several respects resembles the Isaianic Servant of Yahweh:

At that time God will purify by His truth all the deeds of a man, and will refine him for Himself more than the sons of men, in order to destroy every evil spirit from the midst of his flesh and to cleanse him through the Spirit of holiness from all evil practices. He will sprinkle upon him the Spirit of truth as purifying water, so as to cleanse him from every false abomination and from being contaminated with the spirit of impurity, so that he may give to the upright insight

into the knowledge of the Most High and into the wisdom of the sons of heaven, in order to make wise the perfect of way.¹

This passage does not teach that the man who receives this special endowment of the Holy Spirit will himself baptize others with the Spirit, as John says the Coming One will do; but this is not the only respect in which John's prophetic insight goes beyond anything that was envisaged at Qumran.

The baptism of John was a new thing in Israel, although it had antecedents in some degree. Cleansing lustrations, by means of the water of purification and otherwise, were prescribed in the Law, and in some pious communities the observance of such rites was intensified. The Pharisees attached great importance to frequent ablutions, and some smaller and even more radical groups insisted on them to a point where they were characterised as 'daily bathers', 'morning bathers' and the like.

A further analogy to John's baptism may be sought in the practice of Jewish proselyte baptism. A Gentile who was converted to Judaism had to be circumcised (if he was a male) and to offer a special sacrifice in the Temple (while it stood), and also to undergo a ceremonial bath. The date when this bath or self-baptism was instituted is disputed, but as it was a matter of debate between the school of Shammai and the school of Hillel it must have antedated the fall of Jerusalem and goes back at least to the beginning of the Christian era.² Some members of the school of Hillel went so far as to maintain—for the sake of the argument, but hardly in practice—that it was by this baptism rather than by circumcision that a Gentile became a Jew.

In so far as proselyte baptism provides an analogy to John's baptism, John was saying in effect to true-born Jews, proudly conscious of their descent from Abraham: 'Your impeccable pedigree is irrelevant in God's sight; if you wish to be enrolled in the new Israel of the age that is about to dawn, you must take the outside place, acknowledging that you are no better in His eyes than Gentiles, and you must enter the end-time community of His people by baptism, as they have to do'.

But John's baptism was distinctive in that he administered it to others, and in its eschatological significance. Ezekiel promised that, at the dawn of the new age, the God of Israel would purify His people from their uncleanness with clean water and give them a new heart and a

¹ IQS iv. 20-22. Cf. J. A. T. Robinson, *Twelve New Testament Studies* (London, 1962), pp. 23 ff.

² Cf. H. H. Rowley, 'Jewish Proselyte Baptism and the Baptism of John', *From Moses to Qumran* (London, 1963), pp. 211 ff.

new spirit—His own Spirit. It is probably this promise that underlies the words in John iii. 5 about the new birth 'of water and spirit'—words which in their original context may have borne some relation to John's baptism. Those who heeded John's call to repentance and accepted baptism at his hands would form the righteous remnant of the end-time, the 'people prepared' whom John was charged 'to make ready for the Lord' (Luke i. 17). This is probably the point of Josephus's statement that John called upon his hearers 'to come together by baptism'. When, however, Josephus says that John's baptism procured bodily cleansing for those whose souls had already been purified by righteousness, he may be influenced by what he knew of the significance of the Essene washings: at Qumran it was emphasised that all the washings in the world would never convey cleansing to a man whose heart remained stubborn against God. John indeed would have cordially agreed that the baptism which he administered availed nothing for any who accepted it without heart-repentance, but Mark's description of his baptism as 'a baptism of repentance for the remission of sins' (Mark i. 4) is consistent with all the evidence we have for John's ministry.

Those who confessed their sins and received John's baptism in token of their repentance were required to 'bear fruits that befit repentance' (Luke iii. 8)—to live lives which accorded with the 'way of righteousness' inculcated by John (Matt. xxi. 32).

This way of righteousness did not differ essentially from that on which the earlier prophets insisted—to do justice, to love kindness, and to walk humbly with God. He taught his hearers to share their food and clothes with those in greater need than themselves; he did not command tax-collectors to abandon their calling but forbade them to exact a little extra for themselves over and above the appointed taxes; he did not command soldiers to give up their military career but told them to be content with their rations and pay and not to extort money from civilians by violence or by threats of denunciation. (These soldiers were probably auxiliary forces under the command of the procurator of Judaea; the suggestion that they were members of Jewish zealot bands, to whom John acted as field-chaplain,¹ involves a wholesale reading into our basic texts of something that is not there; Josephus, moreover, would not have described an insurgent field-chaplain as 'a good man'!)

While the common people, and even some who were classed as social outcasts, were greatly moved by his preaching, and sought baptism at

¹ Cf. R. Eisler, *The Messiah Jesus and John the Baptist* (London, 1931), pp. 245 ff.

his hands in great numbers, the religious leaders of the nation, the teachers of the law and especially the Pharisees, remained unimpressed. They had their own ideas of what constituted the way of righteousness, and would not recognise in John's baptism any improvement on their own ritual washings.

Most of John's hearers went home after listening to him, to await the advent of the Coming One. But some stayed with him and became his disciples. How numerous John's disciples were we cannot be sure, but they formed a recognisable community, comparable in this respect to the disciples of the great Pharisaic teachers and, later, to the disciples of Jesus. John taught them a form of prayer in which, we may be sure, the eschatological note of his preaching was struck, and evidently imposed a regime of fasting on them as a periodic duty. But it is unlikely that he required them to share the full rigour of his own asceticism, for he wore a coat of camel's hair, and, eschewing bread and wine, ate such food as the wilderness provided—locusts and the honey of wild bees. The fact that he had no objection to eating locusts shows that his asceticism did not involve vegetarianism as a principle of life, although the Ebionites in the second century made him a vegetarian by emending the locusts (Gk. *akrides*) to pancakes (Gk. *enkrides*).¹

From the New Testament writers' point of view, the climax of John's ministry was his baptism of Jesus, who came from His Galilaeian home at Nazareth to the Jordan valley and asked John to baptize Him. This event marks also the beginning of Jesus' public ministry. Why Jesus should have sought baptism at John's hands was a problem which some early Christian writers found difficulty in explaining. It is most probable that Jesus recognised John as a prophet and acknowledged his baptismal ministry as a work of God. We may go further and say that He knew that with John's preaching the hour had struck for His own mission; hence He associated Himself in the most public and unmistakable way with John's ministry by accepting baptism at his hands: 'we do well to conform in this way with all that God requires' (Matt. iii. 15, N.E.B.).

If such was Jesus' conviction, it was more than confirmed by what He experienced as He came up out of the river. Nor is there any good reason to doubt that John for his part thenceforth recognised in Jesus the Coming One of whom he had spoken. The message which he later sent to Jesus from prison, 'Are you the Coming One, or are we to look

¹ Tatian's *Diatessaron* reflects the outlook of the Encratite sect by giving John a diet of 'milk and honey'.

for another?' (Matt. xi. 3; Luke vii. 20), does not suggest that he had not previously looked on Jesus as the Coming One. It suggests rather that, having once acknowledged Him as such, he was now beginning to entertain doubts, because the reports brought to him about Jesus' Galilaean activity bore but little resemblance to his own description of the ministry of judgment which the Coming One would discharge.

John continued his ministry after the baptism of Jesus not only in the Jordan valley but in other parts of the country. The Fourth Evangelist preserves a brief but valuable record of a phase of John's baptismal ministry 'at Aenon near Salim', which is most probably to be identified with the Wadi Far'ah, east of Shechem, for, in the Evangelist's words, there is 'much water there' (John iii. 23). This means that he preached and baptized in the region of Samaria. Even if the Samaritans were ceremonially unclean from the viewpoint of 'normative Judaism', it would not follow that Jewish nonconformists took the same line; and in fact recent discovery and research have pointed to a considerable degree of affinity between certain aspects of Samaritan teaching and of Jewish nonconformity.

While John was active there, Jesus remained in Judaea and carried on a brief baptismal ministry of His own. Some young men who had formerly been John's disciples had by now attached themselves to Jesus, and a not unnatural tension developed between them and their former associates who still regarded themselves as disciples of John. Learning that this tension was being exploited by the Pharisees to drive a wedge between Himself and John, Jesus withdrew to the north.

John's Samaritan ministry probably did not last long, but it laid the foundation for further important developments in that area in the next few decades, of which we are given hints in the brief accounts of the ministries there of Jesus (John iv. 30 ff.) and Philip (Acts viii. 5 ff.), not to speak of later patristic evidence.

One part of Palestine which John does not appear to have visited was Galilee. Yet it was at the hands of Herod Antipas, tetrarch of Galilee, that he met his death. Antipas's tetrarchy included not only Galilee but Peraea, and John's ministry in the Jordan valley was carried on on the Peraean bank of the river as well as on the west bank (John i. 28). John returned from Aenon to Peraea, and there he was arrested by the tetrarch's orders. Antipas might well be afraid, as Josephus says, that John's ability to gather multitudes around him might lead to a revolt; the Synoptic Evangelists add more precisely that John denounced Antipas's marriage to his sister-in-law Herodias. The law of Leviticus

xviii. 16 and xx. 21 forbade a man to marry his brother's wife. The law applied even when the brother had died; there was deep disapproval several years earlier when Antipas's elder brother Archelaus had married Glaphyra, widow of the ill-starred Alexander, son of Herod the Great and Mariamne. (The levirate law of Deut. xxv. 5-10 was an exception, which covered only the case where the deceased brother had left no children.) It was an even more blatant breach of the law when the brother whose wife the woman had formerly been was still alive.

John's denunciation of the marriage did not simply affect the private life of Antipas and Herodias; it had political implications. The allegiance of Antipas's subjects could well be alienated from a ruler who was denounced by a prophet for a flagrant breach of the holy law. It was unsafe to leave John at large, so he was seized and imprisoned at the Peraean fortress of Machaerus. Antipas was unwilling to proceed to more extreme measures, and for a time John was able to communicate with the outside world through his disciples, as when he sent two of them to interview Jesus and report on His activity in Galilee. According to Mark, it was Herodias who ultimately encompassed John's death, against the better judgment of her husband, who 'went in awe of John' and 'liked to listen to him, although the listening left him greatly perplexed' (Mark vi. 20, N.E.B.).

According to Jesus, it was with John that the era of the law and the prophets came to an end; there followed the new era of the kingdom of God of which John was the last herald (Luke xvi. 16). T. W. Manson sums up John's achievement thus:

Negatively he had to destroy the confidence that the Messianic hope was a gilt-edged security from which every reasonably good Jew might expect to draw a dividend. Positively—and it is here that the real greatness of John lies—he set out to create a New Israel to meet the coming Stronger One. He did not know—how could he?—that it would need something thicker than Jordan water to bind the New Israel together, that the New Covenant that would create the New Israel must be sealed in Messianic blood.¹

The memory of John remained for many years with those who had heard him; a quarter of a century after his death we learn of a group of people as far away as Ephesus who claimed to have been baptized with John's baptism. Later still in the same area it has been inferred that there was a 'Johannite' group against whom the Fourth Evangelist polemicalised, but there is no independent evidence for its existence. His disciples probably survived as a self-conscious community for a

¹ *The Servant-Messiah* (Cambridge, 1953), p. 47.

generation or two, apart from those who, recognizing in Jesus the Coming One of whom John spoke, became disciples of Jesus. The connection between John's disciples and various schismatic Jewish groups of which some information is preserved by Christian writers such as Justin, Hegesippus, Hippolytus and Epiphanius, is difficult to establish. Still more problematical is the historic connection between John's followers and the Gnostic sect of Mandaeans, surviving to this day in Iraq. The Mandaeans hold John in high veneration, but all the information about him contained in their literature seems to be derived from the Gospels, more particularly from Luke, mediated through some form of Syriac-speaking Christianity which had been influenced by Marcionism and Manichaeism.

But the last word about John may safely be left with the Coming One whose way he prepared. 'What did you go out into the wilderness to behold?' Jesus asked the crowds. 'A reed shaken by the wind? What then did you go out to see? A man clothed in soft raiment? . . . What then did you go out to see? A prophet? Yes, I tell you, and more than a prophet. . . . I tell you, among those born of women none is greater than John; yet he who is least in the kingdom of God is greater than he' (Luke vii. 24-28).

ROBERT L. F. BOYD, PH.D., M.I.E.E.

Some Lessons and Landmarks of a Century

Introduction

THE terrain of the last hundred years that we are about to re-explore in our minds displays not only a wealth of varied features as broad as could be found in any previous century, but new basic philosophic and religious outlooks, offering an environment as different from the old as that which will greet the first intrepid explorers of the Moon at whose threshold we stand today. We must of necessity only pick out landmarks here and there and draw what lesson we can. We may only cross the country as tourists, not survey it as cartographers; and since you travel today with a physicist as your guide your route will be a physicist's choice.

Certain it is that the lie of the land is characterized by Science, that magnificent, impressive, almost overwhelming mountain range bordering the full span of the century and stretching into the distance, with its loftier regions lost in impenetrable mist and its foothills deceptive in their stark proximity. It is certain too that whatever these heights may reveal or suggest of the grandeur of Science, they obscure for the majority of plain men any glimpse of the great beyond, about which men who lived in earlier centuries spoke with such confidence.

Unfortunately, the highlanders of Science and the lowlanders with no such aspirations are alike in, all too often, having no real comprehension of the underlying nature and philosophical status of Science. I have quoted elsewhere, and it will bear repetition, a paragraph by Jacques Barzun in his introduction to a book by Stephen Toulmin.

Western society may be said to harbour Science like a foreign god, powerful and mysterious. Our lives are changed by its handiwork, but the population of the West is as far from understanding the nature of this strange power as a remote peasant of the Middle Ages may have been from understanding the theology of Thomas Aquinas. What is worse, the gap is visibly greater now than it was a hundred years ago, when educated men could master the main conclusions and simple principles that governed Physics, Chemistry and Biology. The difficulty today is not that Science has uncovered more facts than one mind can retain, but that Science has ceased to be, even to scientists, a set of principles and an object of contemplation.¹

¹ *Introduction to 'Foresight and Understanding'*, Toulmin, 1961, Hutchinson, London.

It is the task of our Institute to retain that perspective of reality which is so easily lost today in the kaleidoscope of changing viewpoints. Faith is threatened by an easy drifting amid popular philosophies quite as much as by the myopia of the specialist. While each 'wind of doctrine' that today threatens the faith of men with shipwreck has a claim to be considered in our councils, we ourselves must see that our moorings are sufficiently firmly anchored not to be parted by changes in the philosophical weather or the fickle climate of opinion.

Amongst the most important principles by which we come to a scientific understanding of the world are the conservation laws—conservation of mass, conservation of charge, conservation of angular momentum and so on. The conserved properties are crucial to the whole structure of our science. Their importance is emphasised by their constancy in the flux of phenomena. Every series of events, every new configuration, every resulting situation restates their relevance. As we take a look at the flow of attitudes and ideas over the period since the inauguration of this Society, let us keep our minds alert for that which is unchanged, for that and maybe that alone is likely to be of abiding significance.

The Mechanical World

In the year 1864, one year before the founding of the Victoria Institute, Maxwell, then Professor of Physics at King's College, London, published his great paper on 'A Dynamical Theory of the Electromagnetic Field.'¹ This work was the crowning glory of classical physics. Here the predictive quality of science, so enabled by the potency of Newtonian mechanics, reached a climax of achievement with the pre-vision of radio, of those electromagnetic waves which Hertz was to discover twenty-three years later.

In his earlier papers on electromagnetism Maxwell had seen the *cause* of those phenomena in a vortex sustaining material, containing particles like ball bearings rolling between the vortices. He writes: 'Magneto-electric phenomena are due to the existence of matter under certain conditions of motion or of pressure in every part of the magnetic field and not to direct action at a distance between magnets and currents'. This way of thinking of the world as a vast piece of engineering machinery was characteristic of the second half of the nineteenth century. Lord Kelvin was perhaps the doyen of it. Crowther² tells

¹ *Proc. Roy. Soc.* 1864.

² J. G. Crowther, *British Scientists of the 19th Century*, 1935, Penguin Books.

us that 'He assumed that the complete description of material phenomena was to be derived from the common objects of experience; atoms must behave according to laws that had been derived from the observation of quantities of matter comparable with the size of the human body'.

In his 1864 paper, however, Maxwell, who was so often gifted with prophetic vision, had broken free of his contemporaries' enslavement to *real* engineering models and was already placing the emphasis primarily on the equations. However, having been brought to such success by the mechanical models, he allows their continuing validity. Thus he says, 'For the sake of persons of different types of mind, scientific truth should be presented in different forms and should be regarded as equally scientific whether it appears in the robust form and vivid colouring of a physical illustration or in the tenuity and paleness of a symbolical expression'. He says 'symbolical', but the adjective is not sufficiently restrictive, for he is referring of course to mathematical symbolism. Perhaps even Maxwell had not yet reached the point where he was prepared to regard the 'robust form . . . of a physical illustration' as equally symbolical, and capable of misleading in just the same way as if the handwriting of the equations were taken to be part of their message.

However that may be, here surely we have already a hint of the idea of complementarity, a hint even broader than those other premonitions of electrons and atomic structure implied by Maxwell's 'molecules of electricity'.

It is notorious that in discussing the biological sciences the great majority, whether they accepted or rejected Darwinian evolution, adopted a much less accommodating attitude to 'persons of different type of mind' and saw the mechanics of natural selection as a direct challenge to the ascription of creatorial powers to God. For most either God acted and it was all infinitely mysterious and magical, or the great machine of Nature acted and it was all intelligible and therefore not divine.

'God moved in a mysterious way His wonders to perform', and if the way was not mysterious then the performing was not God's. It is true that, even then, a few great minds could see the narrowness of the 'nothing buttery' (as MacKay calls it) which incited the head-on conflict that followed the 1860 meeting of the British Association. For the most part, however, these few chose the pleasures of apparent orthodoxy rather than the reproach that would assuredly have fallen on them if they had said then what we all believe today—that to

understand the mechanism of an event in nature is not to remove it one whit from the sphere of God's activity.

But to say what runs counter to popular theology or philosophy demands care as well as courage, lest the Cromwellian injunction to humility, to 'consider that ye may be mistaken', be construed as support for extremists on either side. If a man is to resolve the tensions that his faith encounters, then it is essential on the one hand that his faith be appropriately established; that he can give to himself as well as to others 'a reason for the hope that is in him'; and on the other hand he must give his reasons 'with meekness and fear'¹—meekness lest he judge another to be less honest than himself, fear lest he 'be found to fight against God' for a reason for faith that is not from God.

Much of the conflict with which the century opened arose because Christians hurried, either to defend Paley's 'Argument from Design' from the creative randomness of natural selection or to defend the Bible from the suggestion that the Word of God could come in any manner other than the strictly literal. May it be that the fierceness of the strife at that time was a symptom of a faith and hope insecure because anchored elsewhere than in Christ? Whether or not it is too drastic an over-simplification, Butterfield's dictum had yet to be heard, 'Hold to Christ, and for the rest be totally uncommitted'.² Perhaps here too Maxwell, who was relatively unruffled by the turmoil of those years, had the heart of the matter when he wrote to his wife in 1864: 'Why should we not have our Lord always before us in our minds? . . . Pray to Him for a constant sight of *Him*.'³

Relativity

If the idea of the Electro-magnetic Aether and the truism of the Survival of the Fittest dominate natural philosophy at the opening of the century, the next landmark that demands our attention is the famous Michelson-Morley experiment in 1887.⁴ These workers set out to measure the Earth's velocity relative to that subtle medium whose supposed mechanical properties had led Maxwell to his famous equations. The negative results did far more than sound the death knell of the aether—a coup de grace administered by Einstein with Occam's Razor. Einstein's genius, thus stirred, assisted in the demise of the whole

¹ 1 Pet. iii. 15.

² Butterfield, *Christianity and History*, 1959.

³ *The Life of James Clerk Maxwell*, Campbell and Garnett, 1882.

⁴ Morley and Michelson, *Phil. Mag.* (1887) 24, 449.

of classical Physics and the utter collapse of the view held, according to Richtmyer,¹ by 'not a few physicists of note . . . that all the important laws of Physics had been discovered and that, henceforth, research would be concerned with clearing up minor problems and, particularly, with improvements of measurement so as "to investigate the next decimal place".'

The refusal of Nature to answer questions about the aether and the emphasis on the primacy of the observer's own frame of reference has accompanied the introduction at the popular level of a philosophical climate which distrusts all absolutes. Having watched the physicists throw out the concept of absolute velocity, many today seem ready to throw out all but the subjective and the relative. It may be that right and wrong are not absolutes. It may be that Christians have been slow to recognise that He Who is addressed when the humble Christian prays, 'Our Father, Which art in Heaven' is also addressed when the humble Muslim prays, 'King of the Day of Judgement, 'tis Thee we worship and Thee we ask for help'. Yet the physicist has not thrown out all absolutes—absolute angular momentum for example—and we must be careful not to carry relativism and subjectivism in religion to the point where, so far from being the supreme 'I-Thou' relationship, it becomes supreme narcissism—a mere symbolism for the relationship between the ego and the super-ego. Either, 'There is one God and one Mediator between God and Men, the Man Christ Jesus'² or the whole force of the kerygma is gone and we can replace 'one' by 'none' or 'more than one'. Indeed it is probably true to say that 'There is no God and may be more than one Mediator' is the popular, though no doubt erroneous, interpretation of one bishop's honest opinion. It is true that we have to realise, as St. Peter had to, that 'God shows no partiality, but in every nation anyone who fears Him and does what is right is acceptable to Him'³; but that is a very different thing from saying that all religions lead to God. They may lead away from Him. All too often that has happened in the Christian religion, when its dogma has been put before Christ. Neither is it the same as saying,⁴ 'He who knows about depth knows about God' or that God means 'What you take seriously without any reservation.'

Relativity has emphasised another fact about the physical world, which has an important bearing on our theological thinking. Long

¹ Richtmyer, Kennard and Lauritsen, *Introduction to Modern Physics*, McGraw-Hill, 5th edition, 1955.

² 1 Tim. ii. 5.

³ Acts x. 34 f. (RSV).

⁴ Tillich, *The Shaking of the Foundations*, 1949.

ago St. Augustine attributed the existence of the world to God not *in tempore* but *cum tempore*. In Relativity the 'Lorentz transformations', for changing measurements relative to one frame of reference to those appropriate to the same event as seen from another frame of reference, demonstrated an interchangeability between space intervals and time intervals. In Einstein's four-dimensional continuum, therefore, time was no more absolute than space. God, whom only the theologically naïve thought of as existing *in* space, like an Olympian demigod—a mere component of His own world—was now seen more clearly than ever not to be *in* time either. Once the timeless character of 'He Who is' (Mascall) dawned on men's thinking many an ancient theological crux was resolved.

Quantum Theory

The first decade of the century found Physics in a state of growing confusion, paralleled only by the theological confusion of the extremes of liberalism and fundamentalism. Planck had discovered that energy was radiated in discrete amounts, which we now call quanta, yet these quanta did not all contain the same amount of energy but a quantity proportional to frequency. This dependence of the magnitude of the quanta on frequency showed that they were not just a new kind of atom. The involvement of frequency showed them to be closely related to Maxwell's electromagnetic field. Planck balked at assuming that absorption, the converse of radiation, also occurred discretely, for how could the absorbing atom gather energy discretely from the ever-widening sphere of the wave front? However in the meantime Einstein showed that when absorption led to photo-electric emission that was just what did happen. So radiant energy was like a corpuscle and acted at a point discretely, and it was also like a wave and spread out to be diffracted at a grating or polarised by anisotropic media.

In the years that followed, the way of picturing fundamental particles underwent an even more revolutionary, though reverse, metamorphosis to that experienced by light. Starting with the Bohr-Sommerfeld picture of an atom like a tiny particulate solar system, the imagery passed via De Broglie waves to Schroedinger's wave equation at which point Neils Bohr¹ came to the rescue by introducing to Physics a principle already recognised in theology—Complementarity. The principle has been so widely discussed that I need not explore it in detail here. As

¹ Bohr, *Nature* 121 (1928), p. 580.

introduced by Bohr it asserts 'that electrons cannot exhibit both wave and corpuscular properties simultaneously but that these attributes are complementary in their description of electronic behaviour'.¹ The basic problem was the empirical need for more than one set of images, which, though they might be incompatible on the macroscopic scale, would do justice to the known facts about the electron. Another way of dealing with the problem was to say that all descriptions of physical events in which an electron could be shown to have taken part required the electron to be viewed as a corpuscle, while any prediction of the electron's future required it to be viewed as a wave. Whichever way we look at it, the fact of the matter seems to be that the true nature of the electron requires more than one set of mental pictures to present the full range of its (discovered) properties to our minds. It was in this way, too, that the principle was found to be useful in resolving apparent conflicts between faith and science. For example, if the Bible says, 'God said, "Let the earth bring forth living creatures"' ² and the biologist can trace an evolutionary history for what it brought forth there is, according to the principle, no necessary conflict, for 'the origin of species' can be seen equally well and equally validly as the operation of biological laws and as due to the volition and action of God. It is important, too, to emphasise what Bohr was saying. Both pictures are valid but only when kept separate. An electron does not at the same time exhibit both wave and particle properties. It may be one of a stream which is diffracted at a crystal and subsequently causes secondary emission at a screen, but if the phenomenon requires that it be viewed as causing secondary emission at the crystal, then it cannot also be viewed as being diffracted there.

As I understand the use of the principle in theology, however, it forbids, not simultaneous display of complementary features, but simultaneous employment of features from complementary accounts in a single causal matrix of events. Thus, for example, if the principle of complementarity is to hold, the origin of life may be seen both as part of the divine activity and plan, which should ultimately introduce the 'imago dei', and also as arising from a 'concourse of atoms', but it is inconsistent with the principle to attribute that particular 'concourse of atoms' to God's arranging in a sense different to that in which any other concourse of atoms is due to Him.

The popularisation of the idea of complementarity is just one aspect of the epoch-making impact of the Quantum Theory on human

¹ Shankland, *Atomic and Nuclear Physics*, 2nd ed. (1960), p. 48. ² Gen. i. 24.

thought. If the classical imagining of space and time collapsed with the Theory of Relativity, the classical concept of matter as of the most concrete, immutable and permanent aspect of reality could not ultimately survive the Quantum Theory. Instead of thinking of atoms and electrons as *really* like little hard spheres, scientists found it useful sometimes to think of them as like that, providing one remembered that they were not *really* like it.

We hear a good deal about 'images old and new' in theological discussion today. It may be that there is a paradigm here in natural philosophy for theological thought. Images may be either superfluous or inadequate. That which is imaged may prove to be purely imaginary—to be zero—or it may be far greater—infinite. Maxwell's insights into the electro-magnetic field were achieved by means of physical models of the aether which have not merely turned out to be inadequate and to require complementary accounts to do justice to the phenomena; they were not inadequate but superfluous. They and the aether they symbolised have simply vanished from our thinking. On the other hand no practising physicist has ceased to believe in electrons because they are not really like billiard balls or waves. Rather we have come to realise that the familiar world, which we take so much for granted, has depths which we can explore but cannot ultimately comprehend. The mystery of being, which was always there but is so often taken for granted, has forced itself again upon our thinking. This very inadequacy of our conceptual machinery is reflected in the use of such a term as 'strangeness' for one of the properties of the so-called fundamental particles. Now it seems to me, as a physicist, looking at what has been going on in theology, that it has important parallels with the events in Physics over the last fifty years. The outstanding theological landmark of the period which saw the birth of the new Physics is Karl Barth's recall to know God neither as in the old orthodoxy—a proposition by which to explain the world—nor, as in liberal theology, a mere projection of the divinity of Man, but in an encounter, mediated by the Bible, and demanding response. This was a rejection of experiment in favour of experience, of 'savoir' in favour of 'connaître', as the language of theology. But for Barth's theological revolution, T. H. Huxley's agnosticism would no doubt have been even more prevalent today than it is, for God as a link in a physical chain of events is superfluous. He is no more necessary than Maxwell's aether. Indeed the introduction of 'acts of God' for the otherwise inexplicable is positively deleterious to Science.

However, the situation was not in fact parallel to the aether hypothesis. God, as a 'cosmic clockmaker', could very well be dispensed with, but God was still there. (I do not say 'out there'.) In the Bible and in life God continues to address men in the depths of their mysterious moral being. The Phenomenon of Christ continues to tower above all searches for the historical Jesus. To do justice both to the data of spiritual experience and that of history requires not only a recognition that God is—'He that cometh to God must believe that He is'¹—but it requires far more. It requires, demands may be a better word, response. The parallel is much closer to that of the Quantum Theory than of the Aether Theory. It is a case of inadequate pictures, not of unnecessary ones. Instead of God being the hypothesis we can do without, He is the one supreme fact of experience and of history, and the problem of theology is one of language, that is to say, of imagery. We need thought models, to do justice to that Fact in our own minds, and to enable us to communicate with other minds concerning It.

Proposition and Operation

The United Church of Christ, formed in America in 1959 by a merger of the Congregational-Christian Churches and the Evangelical and Reformed Church, has adopted an interesting statement of Faith. Its opening clause runs, 'We believe in God, the Eternal Spirit, Father of our Lord Jesus Christ and our Father, and to His deeds we testify'. There follow seven clauses concerning those deeds, starting 'He calls . . .', 'He seeks . . .', 'He judges . . .', 'In Christ Jesus . . . He has come . . .', 'He bestows . . .', 'He calls . . .', 'He promises . . .'. The outstanding feature of this statement is its emphasis on God's operations to the almost total exclusion of propositions about His being. Surprisingly enough (in view of the readiness Christians have so often shown to argue about the being of God) the great historic creeds traditionally attributed to the Apostles and to the Council of Nicea show a similar emphasis (apart from the famous Christological passage in the Nicene creed, ending 'consubstantial with the Father' which was, of course, specifically occasioned by the Arian controversy). The emphasis on operation rather than essence, on activity rather than actuality, is closely paralleled in the approach of modern Physics where the behaviour of Nature and its fundamental components is all-important and its being

¹ Heb. xi. 6.

is irrelevant. But philosophically attractive as this approach is, it has its dangers. It is an essentially pragmatic approach and as such can become doctrinaire. As far as human society goes, what is relevant is what God does and how Nature works. But human society is composed of individuals, and for the individual response, involvement, personal relationship requires more than an operational approach. An operational attitude to human relationships may be appropriate to the psychiatrist, but it is inadequate to establish friendship. To enjoy, indeed even to build, a friendship, especially for example the deep, rich friendship of marriage, requires that I represent my friend to myself by a mental imagery adequate to his or her *being* as well as to his or her *functions*. Every human relationship requires for its fulfilment this recognition of an autonomous other.

Now in view of the rapidity with which concepts and language change or lose their power, it seems to me entirely correct that creeds, especially contemporary expressions of belief, should emphasise the activity rather than the essence of God, but I think that we must recognise a danger here. Experience can be variously understood and may be wrongly interpreted. I said earlier that God is the one supreme Fact of experience and of history, but that is very different from claiming that all recognise their experience or history as such. This is the peril of that very relativism in religion to which I referred before—the relativism behind the frequent use of such expressions as ‘what is true for me or for him’ as though truth itself were wholly relative. The humanist agnostic has an ‘ultimate concern’ (Tillich), and surely that is of God, but it is a thousand pities that he does not recognise it as of God. The Muslim kneels to Allah even as Cornelius prayed to God, and his humility and charity *may* be no less, but he needs to hear the ‘good news’ just as much as did Cornelius; and we need to hear it too, for it is ‘the gospel concerning His Son, Who was descended from David according to the flesh and was designated Son of God in power . . . by His resurrection from the dead . . . to bring about obedience to the faith . . . among all nations’.¹ ‘Such is the *unique* “humanity of God”’ (Barth). Here, too, is the apostolic reaffirmation of Christ’s great commission and here, to one physicist at least, is the crux of that discussion which has become known in this country as the ‘Honest to God Controversy’. To quote, this time with an emphatic ‘Amen’, Dr Robinson’s own words, ‘Christianity stands or falls by revelation, by Christ as the disclosure of the final truth . . .’.² As St John says, ‘The Son of God has

¹ Rom. i. 3 ff.

² ‘Honest to God’, 196.

come and has given us an understanding to know Him Who is true. . . . This is the true God and eternal life'.¹

Both the guarantee of a communicable Faith (in the sense of the content, not the act of confident belief) and the safeguard against a purely subjective deity is the realisation that God is the supreme Fact not only of experience but of *history*. It is this which, while giving philosophy, psychology, theology and science their proper place in these councils, enables us still individually to present to our generation, not that philosophy, psychology, theology or science but 'Christ the power of God and the wisdom of God'.²

The Final Authority

Running like an ever-widening stream through the terrain we have traversed is that rejection of human authority which had its source in the sixteenth century and which has characterised and promoted the progress of science ever since.

The *authority of the Bible*, which had dwindled almost to zero in liberal theology, was restored by Barth so that Dillenberger can write, 'In contemporary theology, there is considerable unanimity concerning the nature of its subject matter and its central concerns. Its one concern is the proper understanding and articulation of the Biblical message . . .'.³ It is true that the Bible is the primary material of theology. It is not the Bible, however, that is the central *fact* in the Christian message. While it is possible to argue with some validity that the Bible is self-authenticating, it is a fact of experience well known to evangelists that Christ's authority is mediated through the Bible rather than discovered by analysis of it. The analytical approach to the Bible is truly of great importance, but it may also be spiritually arid. Yet if a man will listen to the Bible he will hear 'The Word of God'. However, although Holy Scripture uses the term 'Word of God' for God's revelation in general given through 'holy men of old', it reserves the title par excellence for Christ. Ultimately 'self-authentication' belongs to Christ. He is the final datum, the final authority, and what characterised the 'Word of God' of old were 'things concerning Himself'.⁴

I said at the start that in our hundred years' journey we should keep our minds alert for that which is conserved. It is no surprise, yet it is

¹ I John v. 20.

² I Cor. i. 24.

³ Dillenberger, *Protestant Thought and Natural Science*, 1961, p. 286.

⁴ Luke xxiv. 27.

of the deepest significance, that that which has been conserved in the theological history of the last hundred years, in the history of this Institute, is the Fact of Christ. Whatever may have been the perplexities, the agonising reappraisals, even the 'Shaking of the Foundations' (Tillich), the central conviction of Christians has remained that 'He that hath seen Me hath seen the Father'.¹ Such is the self-authenticating character of the Christ.

Now this recognition of Christ as the ultimate datum, the final authority for faith, is no deviation from the anti-authoritarian stream characterising our epoch, but an appeal to the primary datum 'from all His interpreters,' and that of course is just what the scientist does. There is a close parallel between the appeal to Christ as the truth about God and the appeal to the physical world as the truth about Nature. At present, however, the disciplines of theology and science are not only autonomous, they are almost unrelated. Maybe the more parallel the approach is the less likely is a meeting point.

The theological problem of our generation concerns the understanding of God's relationship to the world. This is where we stand at the end of our journey. As I see it, it is partly a question of what thought model to employ to portray this relationship to ourselves and our contemporaries and partly a question of grasping the truth we want to portray. A hundred years ago the thesis was almost entirely the transcendence of God. Now, in spite of protestations to the contrary by exponents of the new theology, their emphasis is almost entirely on the antithesis—God's immanence. This emphasis was needed I am sure, but now a synthesis is necessary to do full justice to the truth. And that is just the point. It is the truth 'as it is in Jesus'² to which we must do justice. If Jesus 'lifted up His eyes to Heaven and said, "Father"', then our concept of God's transcendence must do justice to His attitude. If Jesus 'arose a great while before it was day and departed into a desert place to pray', then my encounter with the sacred in the secular can hardly demand less of me. If Christ's answer to the Sadducees—the religious sceptics of His day—on the matter of resurrection was, 'Ye know neither the Scriptures nor the power of God'³ it is at least plausible that He would say the same today to those whose theological thinking no longer contains the concept of a life to come. We must not deny the power of God because 'Christ has been evidently set forth crucified'.⁴ Whatever we are to understand by the suffering of God or,

¹ John xiv. 9.

² Eph. iv. 21.

³ Mark xii. 24.

⁴ Gal. iii. 1.

in St Paul's phrase, 'the weakness of God',¹ it must surely be a voluntary suffering and weakness—witness our Lord's remark about the 'twelve legions of angels.'² It must be a submission to His creation and to His creature, Man, which are nevertheless eternally and utterly contingent on His willing for their being.

It may be that the outstanding lesson of the century now past is enshrined in the statement, 'It is more blessed to affirm than to deny'. It was right to affirm that 'God created Man in His Own image'³ but wrong to deny evolution as a possible method. It is right to affirm that 'The wind bloweth where it listeth . . . so is every one that is born of the Spirit',⁴ but wrong to deny the complementary account of religious conversion given by the psychologist. It is right to affirm the full humanity of Christ, but wrong to deny His full deity. It is right to affirm that God is within, but would be wrong to deny that He is without, right to encounter Him here, but wrong to deny He is out there or even up there. In short a positive approach is what is needed, and for this we must be so 'strengthened with might through His Spirit in the inner man, that Christ may dwell in our hearts through faith, that . . . being rooted and grounded in love (we) may have power to comprehend . . . the breadth and length and height . . . (as well as) the depth, . . . that we may be filled with *all* the fulness of God.'

¹ 1 Cor. i. 25.

² Matt. xxvi. 53.

³ Gen. i. 27.

⁴ John iii. 8.

DONALD M. MACKAY, B.Sc., PH.D.

The Recovery of Harmony

I. Introduction

THE Victoria Institute was founded in a day of battle. Verbal conflicts, even between professing Christians, were carried on in those days with a vituperative vehemence that raises the eyebrows of our agnostic age, and it need not surprise us that members of this Institute were in the thick of the fray.

Today, however, the theological climate of debate has changed. It is no longer 'done' for Christians to make scientists the object of venom; and scientists who are not Christians are usually (with a few notable exceptions) content to let sleeping dogs lie. 'Liberal' Christians may still be found freely slandering those whom they call 'fundamentalists'; and the motivation of 'new' theologians may find gross misrepresentation at the hands of some of the 'old'. But by and large a spirit of charity is abroad, and hardly a shot is now fired on the front once manned by the founders of the V.I. Not battle, but 'dialogue', is the watchword of today.

What, then, of the future? Has the need for a forum such as this passed with the discovery (many years before 'Honest to God') of the errors of basing any apologetic on a 'God of the Gaps'? I do not believe so. There is a cry today, arising both within and outside the Christian Church, which demands an effort every whit as intense as that of our founders, to perceive and articulate the relevance of the faith to the thought of our time. This cry is not that 'God is dead', but simply and even wistfully that God is *irrelevant*. This time it is not only the discoveries of our age but also its *habits of thought* that are believed to have left Christianity far behind, speaking to needs no longer felt, in language no longer understood.

Here once again, the effort required is not purely theological. The rise of science, the development of analytic philosophy, the changes in our social structure, the growth of mass communication . . . these and a host of other factors have been invoked in explanation of the change in people's attitudes, and an inter-disciplinary effort no less broadly-based will be required to understand our present situation and to discern

a proper remedy. Nor is this likely to be a short-term task with a limited and definable span; for no one with any sense of history can doubt that each succeeding generation is likely to present a different set of needs to be met by the humble and prayerful integration of Christian faith and contemporary thought.

2. *Harmony*

I have called this paper 'the recovery of harmony'. By 'harmony' I want to denote something far more positive than the slightly uneasy, half-comprehending, mutual tolerance which (we may be thankful enough) has replaced the enmity between the scientists and theologians of yesterday. There are good biblical reasons to doubt that any merely intellectual efforts could suffice to draw those who are now 'outside' into the Christian fold; but I believe that there are several areas in which such efforts are now in place—and urgently required—to remove needless obstacles from their path; and moreover that the manifest recovery of a biblical understanding of our total situation, on the part of Christians, could itself have an apologetic force out of all proportion to its pastoral value.

The scientist who is a Christian, after all, is investigating his Father's world. He is free to develop an autonomous discipline for this purpose; and though biblical theism is relevant in the sense that it encourages him to expect God's world to be 'lawful', the Bible sets no bounds on the range of his enquiries, nor does it significantly foreclose their outcome. 'Harmony' in the sense of the removal of apparent contradictions is therefore not too difficult to achieve. What is more costly, and infinitely more worthwhile, is the kind of active integration that suggests at every point the necessity, rather than the mere possibility, of Christian commitment for even the most scientifically oriented men of our time. This is true harmony—a harmony not only of thought but of motivation and practice. It is the kind of harmony that people are waiting to see—in us—before they will take seriously any claim we would press upon them in the name of our Master.

3. *Starting Points*

It would of course be idle to guess at the outcome of such an enterprise in advance; but in the remainder of this paper I would like to consider a few themes that might offer useful starting points.

Among the commonest theological questions of our day—often popularised with unfortunate overtones by professing Christians—are the following:

(a) Even if science cannot disprove theism, has it not effectively banished God from our world?

(b) Is not the Christian doctrine of man discredited by mechanistic psychology?

(c) Has not linguistic philosophy in any case shown Christian metaphysics to be meaningless?

I do not want to suggest that these present well-formulated problems as they stand; but they indicate well enough, I think, the kinds of topic that need to be tackled in addition to (though certainly not to the exclusion of) the many others that have been our concern in the past. Archaeology, biblical criticism, comparative religion and a host of kindred disciplines must continue to challenge our interest; if I concentrate now on the more radical questions of the day, it is only because without an adequate answer to them our interest in the others will be judged at best academic, and at worst frivolous, by our enquiring contemporaries.

4. *The Nature of Religious Language*

Logically if not chronologically first in priority must be the confrontation of our religious discourse with the discipline of 'linguistic philosophy'. Fashions in philosophy come and go, and even an outsider may suspect that the 'linguistic' fashion will gradually give place (if it has not already) to a revival of interest in genuinely philosophical questions. But it would be a great mistake, I think, to suppose that the lessons of language analysis are likely to be unlearnt, or to regard the technique itself as something intrinsically hostile to religion. As always, one can find atheists among its practitioners who invoke their technique in support of their unbelief; but its essential emphasis is as healthy and helpful in a Christian context as one could wish to find.

What do our words *do* for us? How do they come to have meaning, and what is their relation to experience? If a statement cannot be verified or falsified (by us) what distinguishes it from meaningless mumbo-jumbo? Questions like these are like a breath of fresh air to the truth-loving Christian, whether applied to religious or any other language. None of them is rhetorical (though atheists sometimes utter the last

in a religious context as if it were). All, however, invite on-going investigation in a forum such as ours, as a valuable means of bringing our religious language 'down to earth' where alone it was meant to function.

Here (if I may venture just one exploratory thought), it seems likely that the linguistic woes of atomic physics may have a lesson for us. In physics, words like 'electron' or 'photon' admit of no ostensive definition in isolation. We cannot point to an electron. Our basic data are not *entities* as such, but *events*: 'electron-impact', 'photon-emission', 'electron-exchange' and the like. It is these hyphenated expressions that have a definite operational link with our experience, and it is only by virtue of this link that the physicist's talk of electrons, photons and the like is admitted as 'physically meaningful'.

In face of this, some 'operationalists' have run to the extreme view that talk of electrons and the like is 'really' talk about the experiences of the physicist; but the difficulties of this attitude are at least as great as those it seeks to avoid. The lesson for us, I suggest, is a more modest one: that religious language, like physical language, may be more readily seen to be meaningful when we take as our 'semantic units' not the names of entities (such as 'God') but hyphenated expressions denoting events or activities ('receiving-God's-forgiveness', 'asking-God's-guidance' or the like). Let us beware the absurdities of concluding that therefore talk about God is 'really' talk about our experiences; but let us recognise and welcome the implication (Biblical if anything is) that talk about God is meaningless to us except in so far as the linguistic structure of our theology makes contact at some relevant point with our experience.

5. *The Nature of Persons*

The second great area of live encounter is between the Christian doctrine of man and the various disciplines—Freudian psychology, neurophysiology, 'cybernetics' and the like—which have begun to reveal the mechanistic basis of human behaviour.

Here debate takes place on at least two levels. On the one hand, it is possible to find atheistic Freudians who roundly dismiss traditional religious thinking as 'diseased', for reasons which are said to derive from psychoanalysis. On the other, the development of machines with human 'mind-like' capacities, and the parallel growth of mechanistic theories of brain function, are thought by many to demolish the concepts of the soul and human responsibility.

Behind both of these attacks on Christian doctrine I believe there lie presuppositions which, though specious enough to tempt Christians also to accept them, are radically false. They concern the nature and relevance of explanation in psychology. The temptation is to think and talk as if a psychological explanation of a belief or an action were an *exclusive alternative* to the personal significance that we would normally attach to it. Accepting this presupposition, a Christian would then be driven to look for technical flaws in the psychological account proposed by his adversary—but to do so on theological grounds.

This, I think, would be a major blunder. It is not that the technical armour of Freudian psychology is impenetrable. On the contrary, to many scientists (with no religious or other axes to grind) its logical status at some points appears dubious to the point of scandal. The danger indeed is that Christians, finding it all too easy to expose the more pretentious claims made in the name of Freud, might be encouraged to draw false *theological* implications from their success.

If there is pseudo-scientific nonsense in Freudianism, by all means let it be exposed, whether by Christians or others. But the way forward theologically, I suggest, is surely to recognise that if the Freudian story is in fact false, then there is every reason for Christians to expect some other mechanistic story of the same general kind to be true; and that the truth of that story need in no way conflict with what Christianity teaches about the nature of man.¹ To take a well-worn analogy, a complete psychological explanation of the process by which a child comes to acquire the ideas of geometry, and to believe Pythagoras' Theorem, may (we hope) one day be found; but it would be crass folly to suppose that the validity of *what he believes* would then *ipso facto* be thrown in question. The attempt to debunk what Christianity has to say about the soul, sin and salvation by appeal to Freudian theories of conceptual development is equally devoid of logical foundation, and is in fact itself a revealing example of 'wishful un-thinking'. The psychology of religion will make more scientific progress if such reductionism is eradicated.

¹ W. Alston, 'Psychoanalytic Theory and Theistic Belief', in *Faith and The Philosophers* (edited by John Hick), Macmillan, London, 1964, pp. 63-102. D. M. MacKay, 'On Comparing the Brain with Machines', *The Advancement of Science*, 40 (1954), pp. 402-406, also *American Scientist*, 42 (1954), pp. 261-268, and *Ann. Report of Smithsonian Inst.* (1954), pp. 231-240. 'Complementarity II', *Aristotelian Soc. Suppt.* 32 (1958), pp. 105-122; 'Man as a Mechanism', *Faith and Thought*, 91 (1960), pp. 145-157, also (revised) in *Christianity in a Mechanistic Universe* (edited by D. M. MacKay), Tyndale Press, 1965.

The need for clear and constructive theological thinking is even greater in relation to the 'mind-body problem' as it has been sharpened by the current theory of automata. To speak of 'man' as an automaton would seem to be a contradiction in terms. But is man's *brain* an automaton? The temptation to answer at once in the negative (on theological grounds) should, I think, be resisted. The logic of the relation between 'person-talk' and 'brain-talk' is subtle and complex, and I believe that coming years will see a considerable reformulation of our notions of personality, towards which Christians should have an important contribution to make.

In particular, as I have argued elsewhere,¹ the presupposition that physical determinism would eliminate personal freedom and responsibility is due for a radical re-examination whose consequences, forensic, social and theological, will take much working out. Space will not permit us to follow this thread now; but I believe it leads to a position remarkably congruent with familiar Pauline teaching on human responsibility *vis-à-vis* the sovereignty of God.

6. *The Sovereignty of God*

This brings me to the third area of current concern, which for many is the most notable. What place has science left for the *activity* of God in our world? What point can there be in intercessory prayer, for example, if our world is admitted to unroll according to natural law? Is it just that we feel better for it?

Here it seems to me that the most urgent need is for a rediscovery and a proper outworking of the whole biblical doctrine of the sovereignty of God in the natural world. For generations our apologetic has allowed itself to develop internal strains and inconsistencies through piecemeal neglect or repudiation of one aspect or another of this doctrine. Motives have always been of the best. People wished, for example, to excuse God from responsibility for evil acts, or natural catastrophes, or sickness, or the fate of the reprobate; and could see no other way to do so than to deny these things any place in His 'determinate counsel and foreknowledge'.

Here the theological water is deep, and our purpose is not to discuss these particular issues. Suffice it to say that if the sovereignty of God

¹ D. M. MacKay, 'Brain and Will', *The Listener*, 9 and 16 May, 1957, also (revised) *Faith and Thought*, 90 (1958), pp. 103-115, and in *Body and Mind* (edited by G. N. A. Vesey) Allen and Unwin, 1964, pp. 392-402.

were declared to be like that of, say, a railway signalman—a mere *manipulator* of natural events—then the dilemma of the apologists would be understandable. But of course the Bible presents God not as the manipulator but as the *creator* of our world—the One who conceives it, and moment by moment holds it in being. For God-in-eternity the whole time-scale of His creation, though conceived as past, present and future from the standpoint of any one of His creatures, is an accomplished fact.¹ In one clear sense He has determined every twist and turn of events; for only what He has conceived could take its being in His creation. But this determination, so far from being manipulative, and incompatible with our responsibility as agents, is the very condition of it; for it is as responsible agents, no more and no less, that God has conceived us into being.

Thus when (within His drama) one of His creatures prays, and receives an answer, that answer does not require the *ad hoc manipulation* of people or things in the drama. On the contrary, the biblical view-from-eternity sees not merely the answer but also the praying itself as equally part of the 'determinate counsel and creative will'. From this standpoint no question of 'changing God's will' arises; nor, for that matter, need there be any question of 'violating natural law'.

But—it may be objected—surely all this amounts to saying that prayer makes no real difference? Whether we talk in terms of divine sovereignty or physical determinacy, is not the outcome bound to be the same whether we pray or not? Here we come to what I believe to be the key to most misunderstandings of this doctrine. It is usually presupposed that if a statement of the sort in the previous paragraph is valid from the standpoint of eternity, then whether we know it or not, and like it or not, it must be valid for us now. Oddly enough, for simple logical reasons, *this is not the case*.

Think for example of the 'eternal present-tense' statements that we ourselves make when describing, say, the fortunes of a Shakespearean character such as Hamlet. 'Hamlet decides to kill the king', we say. For us, outside of Hamlet's space-time, this is a 'statement of fact'. But if we ask whether Hamlet, before making up his mind, would have

¹ R. L. F. Boyd, 'Reason, Revelation and Faith', in *Christianity in a Mechanistic Universe* (edited by D. M. MacKay), Tyndale Press, 1965; D. M. MacKay, 'Divine Activity in a Scientific World', *Faith and Thought*, 91 (1959-60), pp. 75-96; *Science and Christian Faith Today*, Falcon Press, 1960; 'Science and Religion', in *Science in its Context* (edited by J. K. Brierley), Heinemann, 1963, pp. 305-318.

been correct to believe this 'statement of fact' of ours, we see at once an absurdity in the very notion. It is not just that Hamlet is unable to learn of our statement, but rather that for Hamlet at that point *our statement would have no validity*. His believing it would invalidate the basis on which we ourselves accept it; for a 'Hamlet' who believed it then would not be the 'Hamlet' to whom it applied.

Similarly (though this is a very sketchy outline of the argument) if we attempt to interpret the doctrine of Divine sovereignty as meaning that there exist now a set of exact specifications of our future, unknown to us but binding upon us whether we know them or not, or like them or not—then this interpretation is logically fallacious. To say (after praying) 'I need not have prayed, since the outcome would have been the same' is to miss the point that a world in which I had *not* prayed would have been a different creation, and therefore I could have no basis for concluding that the outcome would not also have been different. In short, I must after all pray as if the outcome depended on my praying; for in a precise and logically inescapable sense, it does.

7. Conclusion

It will be clear that under each of the foregoing heads we have merely sampled the flavour of the 'frontier discussion' that needs to be carried on, among Christians themselves as much as between Christians and others. Though I have only hinted at some of the lines of thought that seem promising, it may be worth while in conclusion to point out the close relation that exists between them.

In the last section we have had to recognise that certain conclusions, which might have seemed to follow logically from statements about God-in-eternity, would be *systematically invalid* for an agent within the space-time that God has created. Traditional logic can thus be treacherous in matters theological, for a sober reason which has nothing in common with emotional arguments against 'being too logical in theology'. For here it is logic itself that uncovers the impropriety in question. Statements from the standpoint of God-in-eternity belong demonstrably to a *different logical system* from those defined from the standpoint of an agent within the creation itself. Careless mixing of terms and concepts from the two systems is the source of much confusion.

Here we have a direct link with our second topic, the relation of 'brain-talk' and 'person-talk'. These two levels of discourse also

constitute distinct but logically complementary language-systems; and much of the foregoing argument can in fact be applied *mutatis mutandis* to the establishment of human responsibility in face of mechanistic theories of brain function.

It will be seen that our second and third topics in conjunction have in fact a close link with our first—the nature of religious language. The suggestion I would like to repeat here¹ is that we may gain important clues to the nature of talk about God by looking more closely and with fresh eyes at talk about persons. Despite the obvious contrasts, there are many philosophical questions that can be raised in similar terms about both; and our familiarity with at least some pragmatic answers in the latter case could be expected to suggest a few useful lines of thought in the former.

What I would most emphasise, however, is again that all intellectual exercise of this sort, as far as our agnostic contemporaries are concerned, can be no more than useful ground-clearing. What they want to know is not whether Christianity is possible, or even plausible, but whether it is *true*. The knowledge that it is, according to our Lord, is not ours to give. It comes only out of that ongoing personal transaction between each man and his Creator in which God becomes not 'it' or even 'He' but 'Thou'. Am I wrong in believing that on this crucial point our apologetic is most out of contact with the men of our day?

Christ and his apostles had much to say about epistemological barriers to the knowledge of God that deserves close study in terms of our present situation. Many barriers are unwittingly self-erected, especially those arising from unwillingness to face the consequences of knowing and obeying the Truth. But many more are constituted—let us face it—by the absence of overt evidence in the lives of professing Christians that for them obedience to truth and obedience to God are one and the same and alike joyful and free. Here, I think, is our highest *raison d'être*. If our Institute continues to function with its priorities geared to these realities, then by the blessing of God its next 100 years may be of at least as great service as its first.

¹ D. M. MacKay, 'Man as a Mechanism', *Faith and Thought* (*loc. cit.*), p. 157.