

FAITH
AND
THOUGHT

Journal of the Victoria Institute

Published by
THE VICTORIA INSTITUTE
22 DINGWALL ROAD
CROYDON, SURREY
ENGLAND

Vol. 91

Number 1

Summer 1959

CONTENTS

REPORT OF THE COUNCIL FOR 1958	3
H. R. GOUGH	6
QUMRAN AND THE OLD TESTAMENT F. F. Bruce	9
ARCHAEOLOGY AND GENESIS I - XI T. C. Mitchell	28
LANGHORNE ORCHARD PRIZE ESSAY—1958 H. L. Ellison	50
CORRESPONDENCE	65
REVIEWS	66

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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. 91

Number 1

Summer 1959

EDITORIAL

The Reith Lectures for 1959 will be dealing with an interesting subject and should arouse a great deal of interest. Professor Medawar is to speak on 'The Future of Man', and we are informed that he will consider such questions as the process of prediction and the control of the evolution of man and his environment. These lectures should provide ample material for discussion within the compass of the activities of the Victoria Institute, and it is to be hoped that a number of our members will seriously consider either giving us an article arising out of the Reith Lectures, or else providing some comment which would make the starting point for some discussion.

A number of us had the privilege, earlier in the summer, of listening to the Annual Address of the President, Dr F. F. Bruce. Our attention was directed to the relationship of the Dead Sea Texts to the Old Testament, and we were richly rewarded with a scholarly and lucid exposition. We wish to extend to Dr Bruce, on behalf of the Victoria Institute, our hearty congratulations on his appointment as Rylands Professor of Biblical Criticism and Exegesis at the University of Manchester. This is a Chair which has been occupied by eminent Biblical scholars, and we are happy that our President should be honoured similarly. We wish Dr Bruce every success in his new post. Mr T. C. Mitchell is not exactly a newcomer to the Victoria Institute. A comment by him appeared in the first number of *Faith and Thought*. We now welcome his article on the patriarchal narratives of Genesis. Mr Mitchell is a graduate of the University of Cambridge, and at the moment is Assistant Keeper of Western Asiatic Antiquities at the British Museum.

The Council wishes to express the very sincere hope that members of the Victoria Institute will do their utmost to make this *Journal* a lively channel of discussion. There is ample provision for comment on the published articles, and we hope that such discussion will be maintained. The Editorial Secretary will be pleased to receive communications of this kind at 15 Quarry Road, London, S.W.18 (Tel. VANDyke 7805).

We are pleased to announce that the Council has approved the award of the Langhorne Orchard Prize to Rev. H. L. Ellison, B.D., B.A. for his Essay—'Can An Historic Faith Convey Final Truth?' We congratulate Mr Ellison and trust that readers will find his contribution thought provoking. Mr Ellison was, for some years, Tutor in Old Testament Studies at the London Bible College. He has recently been responsible for Hebrew Studies at Spurgeon's College, London, where he is now in charge of lectures in Old Testament History and Religion. He is also Supervisor of Old Testament Studies at Fitzwilliam House, Cambridge.

REPORT OF THE COUNCIL FOR THE YEAR 1958

read at the

ANNUAL GENERAL MEETING

(2 June 1959)

Progress of the Institute

THE Ninety-first Annual Report covered the work of the Institute up to June 1958 and it is appropriate, therefore, that this Ninety-second Annual Report should span 1958 and 1959.

The elevation of Bishop Gough, one of our Vice-Presidents, to the Archbishopric of Sydney has been a source of great joy to us all. We should thank God, too, that such an especially worthy successor to Archbishop Mowll has been appointed.

During the year, Dr C. T. Cook and Mr E. W. Filmer resigned from the council because they felt that the pressure of new and heavy responsibilities was precluding their giving the full and continuous support that the Council had, hitherto, had from them. In accepting their resignations, the Council wishes to record publicly its debt of gratitude to them both for their service to it, and to the Institute in so many ways for so many years. They have given papers; they have given of their time, of their substance, and of their wisdom. The Council trusts that those who remain to carry on the work of the Institute will hold in mind the devotion to its work that characterised Mr Filmer and Dr Cook.

To fill one of the vacancies the Council invited Mr E. G. Ashby, a master at a London Grammar School, and I am happy to tell you that he is willing to accept. I hope that this meeting will endorse the Council's action and confirm Mr Ashby's appointment. The Council feels that it is very important that it should have representatives, so far as is possible, from the major professional groups within the membership of the Institute, and of such groups education is, of course, vitally important.

Last year I announced the new policy which the Council had adopted to try to meet the needs of those of our members, by far the greater proportion, who lived out of London and were not, therefore, easily able to get to the monthly meetings at Caxton Hall.

We hoped to publish all three parts of the 1958 Journal, *Faith and Thought* in 1958, but we have to admit failure on this score. There are a number of very good reasons why this has been so, but the major one is that a new periodical of this sort not infrequently has a perturbed infancy. The Editorial Secretary, Mr David Ellis, has had a busy year, and the Council is very grateful to him for his efforts. We trust that the difficulties of this first year or two will soon be resolved. One of the problems is, of course, the supply of material for inclusion in *Faith and Thought*. It is comparatively easy to get material of a sort, but more difficult to ensure that what is finally published is up-to-date, authoritative, and, not least, likely to be of interest to most of the members of the Institute.

During the year one University meeting has been held. Mr Barnes discussed 'The Concept of Randomness and Progress in Evolution' at a well-attended meeting at Birmingham University. His paper is shortly to be published.

I should like to draw your attention to the Prize Essays for which awards will be made by the Council in 1958-59. The first—the Langhorne Orchard Essay—title is 'Can An Historic Faith Convey Final Truth?' and the closing date for entries is 30 June 1959. The second—The Schofield Essay—has been given the title 'Faith's Debt To Scepticism' and the closing date for entries to this Essay is 31 December 1959. In due course the winning Essays will appear in the *Journal*.

Before I ask the Honorary Treasurer, Mr Francis Stunt, to present the Balance Sheet and the Statement of Income and Expenditure, I should like to express the thanks of the Council to Mr T. C. Burtenshaw, its Secretary, and to assure him of our gratitude for his services.

May I move from the Chair that our President, Professor F. F. Bruce, and our four Vice-Presidents, Professor Anderson, Archbishop Gough, Professor Guthrie, and Dr White, be confirmed in their offices for the ensuing year; that Mr Stunt be re-appointed to the office of Honorary Treasurer, and that Mr E. G. Ashby be appointed to the Council in the place of Dr C. T. Cook.

This has been a year in which the changes in procedure initiated last June have been crystallising. We do not yet see the final form, but the Council is thankful to God for His continuing grace, and prays that it may ever seek and find His will for the future work of the Victoria Institute.

R. J. C. HARRIS, *Chairman*

THE VICTORIA INSTITUTE

Income and Expenditure Account for the Year ended 30th September, 1958

1957		1957		1957
£702	Printing of lectures	£363	4	9
218	Salaries and National Insurance	324	6	5
299	Other Expenditure	183	3	9
<u>£1,219</u>		<u>£870</u>	<u>14</u>	<u>11</u>
—	Excess of Income over Expenditure	285	17	7
<u>£1,219</u>		<u>£1,156</u>	<u>12</u>	<u>6</u>
		<u>£1,219</u>		<u>£1,156</u>
				<u>12</u>
				<u>6</u>

Balance Sheet as at 30th September, 1958

<i>General Fund</i>			<i>General Fund</i>	
£152	Sundry Creditors	£298	11	5
230	Cash overdrawn	0	0	0
—	Surplus carried forward	92	2	0
<u>£382</u>		<u>£390</u>	<u>13</u>	<u>5</u>
2,129	<i>Special Funds</i>	2,116	10	1
<u>£2,511</u>		<u>£2,507</u>	<u>3</u>	<u>6</u>
		<u>£2,511</u>		<u>£2,507</u>
				<u>3</u>
				<u>6</u>

<i>General Fund</i>			<i>General Fund</i>	
	Office Equipment	£44	10	0
	Subscriptions in arrear	226	4	0
	Cash in hand and at bank	119	19	5
	Deficit carried forward	0	0	0
		<u>£390</u>	<u>13</u>	<u>5</u>
		<u>£382</u>		<u>£390</u>
				<u>13</u>
				<u>5</u>

<i>Special Funds</i>			<i>Special Funds</i>	
	Investments at cost	£1,728	0	0
	Cash in hand and at bank	401	388	10
		<u>£2,129</u>	<u>388</u>	<u>10</u>
		<u>£2,511</u>		<u>£2,507</u>
				<u>3</u>
				<u>6</u>

The above are an abridged summary of the audited accounts, certified by Messrs. Metcalfe Collier, Blake & Co., Chartered Accountants, the original of which may be inspected by any member at the office of the Institute during its office hours.

FRANCIS F. STUNT,
Hon. Treasurer

H. R. GOUGH

HUGH ROWLANDS GOUGH was ordained to serve as an assistant curate at St Mary's, Islington, in 1928. Prebendary Hinde was then Vicar of Islington and helped to give a solid evangelical start to a ministry which has known an ever-widening influence. At the end of his curacy he married the Hon. Madeline Kinnaird, daughter of Lord and Lady Kinnaird, themselves well known in evangelical circles of an earlier generation.

Hugh Gough had been nurtured in the evangelical tradition, his father being a well-known C.M.S. Missionary and Rector of St Ebbe's, Oxford, on retirement from the mission field. Hugh was himself President of the C.I.C.C.U. when at Cambridge.

From Islington he went to be Priest in Charge of St Paul, Walcot, from 1931 to 1934, another evangelical stronghold in the West country; and then to do outstanding work at St James, Carlisle, from 1934-39, where he was followed by George Duncan and Herbert Cragg, and where he laid the foundation of what is now the largest Sunday School in the Diocese of Carlisle. No sooner had he returned south to St Matthew's, Bayswater, than war came. Gough at once joined up and became a Territorial Chaplain to the Forces, 1939-45. He saw service, was wounded, and by the end of the war was a senior Chaplain. He was mentioned in Dispatches, and later awarded the O.B.E.

He returned to parochial work to be Vicar of Islington in a time of tremendous reconstruction. He saw through the whole of the re-organisation of the Deanery, and the reduction of the thirty-nine parishes, many of which had bombed churches, to thirty-two. This called for a complete re-appraisal of the Church's task over the whole area of the Islington Deanery, comprising a quarter of a million people, including detailed work on parish boundaries, which he did with characteristic thoroughness. In the same period he had the task of re-establishing the Islington Clerical Conference, with a notable Conference in January 1947. He was the architect of the post-war growth and reconstruction, and laid anew the foundation of a strong parish life, at St Mary's, following the tremendous disruption by war, evacuation and bombing.

In 1948, within a few weeks of being made a Prebendary of St Paul's Cathedral (a mark of the gratitude of the Diocese to Mr Gough for his work in Islington in the two previous years) he was appointed Suffragan Bishop of Barking, in the Diocese of Chelmsford, and Archdeacon of West Ham. In his capacity as Archdeacon he also served in Convocation and Church Assembly, and was a tower of strength to the evangelical cause in these two bodies, until the Archdeaconry was separated from the Suffragan Bishopric so that he no longer sat as an ex-officio member in Convocation and Church Assembly.

In the Diocese of Chelmsford he not only worked assiduously in his Diocesan duties, but also gave real leadership to evangelicals in the Diocese. Under him the Evangelistic Council of the Diocese came to life, and he was engaged in a number of imaginative schemes when he left.

In the summer of 1957 the Archbishop of Sydney invited Bishop Gough to tour Australia, and particularly to visit Sydney, where he was very warmly received. This proved to be a most providential visit, since it offered a large number of the Sydney clergy and leading lay people (who act as lay electors in the Sydney Diocese) a chance to know and love him; so that despite the strong claims of the fine local evangelical leaders, such as Bishop Kerle and Bishop Loan, he was elected a year later by a large majority to be Archbishop of Sydney. He left these shores recently to be enthroned on 31 May in St Andrew's Cathedral, Sydney, where he will also be Metropolitan of New South Wales, comprising the eleven other Dioceses, with Sydney, in that Province.

This bare recital of his progress in the Church of England and the Anglican Communion would be incomplete without reference to four other interests. First, there was the Keswick Convention. For many years Bishop Taylor Smith was the much-loved Bishop at Keswick, and many who heard Archbishop Gough's humble and penetrating addresses at the Convention in the post-war years felt that the mantle of Bishop Taylor Smith had fallen upon him.

Secondly, he supported the work of the Evangelical Alliance. For many years Archbishop Gough was one of the few clerical secretaries, and a Council Member for a number of years. He helped to get an Australian counterpart organised during his tour of Australia in 1957.

Thirdly, he had interests in the student world. He was much in

demand for preaching by the undergraduate Christian Unions of Oxford and Cambridge, and in the business houses and banks of the City of London, where his quiet evangelistic addresses drew many people to Christ.

Lastly, his place in evangelical history is assured by the fact that he was the one outstanding Church leader who had the courage and prophetic insight to throw himself wholeheartedly into the welcome to Dr Billy Graham, then largely unknown in this country, to lead the great Harringay Crusade which began on 1 March 1954. Dr Graham, who faced some intense opposition from the British press, has himself told how, when he got to these shores, Bishop Gough was there to greet him and shook him by the hand and said, 'Well, Billy, we shall sink or swim together'. The Bishop's fearless advocacy of Billy Graham's evangelism seemed destined to keep him from the highest positions of authority in the Church of England. For ten years he humbly did the work of a Suffragan Bishop. However, the Scripture says 'them that honour Me, I will honour' and his friends rejoice today at the signal honour shown him, and preferment thrust upon him, in the Church of God across the world.

M. A. P. W.

F. F. BRUCE, D.D.

Qumran and the Old Testament

Presidential Address, 2 June 1959

Introduction

THE Qumran documents include an abundance of material bearing on the Old Testament—Hebrew texts, Greek texts, Targums and commentaries.

(1) Over 100 copies of Old Testament books in the Hebrew (or Aramaic) original have been identified among the more than 500 books represented by the Qumran finds. Most of these have survived only as fragments, but there are a few reasonably complete copies, such as Isaiah A from Cave I and the copies of Leviticus and the Psalms from Cave XI. All twenty-four books of the Hebrew Bible are represented with the exception of Esther; there are also fragments of some books of the Apocrypha.

(2) Some Septuagint fragments of two manuscripts of Leviticus and one of Numbers have been identified from Cave IV; Cave VII has yielded fragments of the Septuagint text of Exodus and also of the Epistle of Jeremiah, which appears in most editions of the Apocrypha as the last chapter of Baruch, although it is an independent composition.¹

(3) Of all the Targumic material found, greatest interest attaches to the Targum of Job found in Cave XI, because we have independent evidence for the existence of a written Targum of this book in the period of the Second Temple, which Gamaliel I ordered to be built into the temple walls² (presumably not later than A.D. 63, when Herod's

¹ Cf. H. M. Orlinsky, 'Qumran and the Present State of Old Testament Studies: The Septuagint Text', *JBL*, 78 (1959), pp. 26 ff. The most significant Greek Old Testament find in the Dead Sea region has been made not at Qumran but in an unidentified location which was occupied at the time of the second Jewish revolt (A.D. 132-135). This find is a fragmentary copy of a Greek version of the Twelve Prophets, whose text is in agreement with that used by Justin and has been tentatively identified with Origen's *Quinta*; cf. D. Barthélemy, 'Redécouverte d'un chaînon manquant de l'histoire de la Septante', *RB*, 60 (1953), 18 ff.

² TB *Sanhedrin* 115a.

temple was finally completed). We remember, too, the note appended to the Septuagint text of Job which is said to have been 'translated from the Syriac book' (probably from an Aramaic Targum). Fragments of a Leviticus Targum (xvi. 12-15, 18-21) have been found in Cave IV. The *Genesis Apocryphon* from Cave I certainly contains Targumic sections, although J. T. Milik says that it is 'no true Targum'.¹ Other scholars, however, disagree with him; M. Black, working out a hint dropped by P. Kahle, says that it 'is almost certainly our oldest written Palestinian Pentateuch Targum'.²

(4) One of the most important groups of writings found at Qumran consists of commentaries (*pesharim*) on various Old Testament books or parts of books. These not only tell us much about the biblical interpretation and religious outlook of the Qumran sectaries, but also have a contribution of their own to make to the history of the biblical text.

In the light of these different species of Qumran literature we now propose to consider what can be learned about (a) the literary criticism of Old Testament books; (b) the text of the Old Testament; (c) the canon of the Old Testament; (d) the interpretation of the Old Testament current at Qumran.

Literary Criticism

The evidence which the Qumran discoveries provide for the literary criticism of Old Testament books is exiguous. The reason for this is simply stated: the Qumran literature for the most part belongs to an age when all, or nearly all, the Old Testament books had acquired their final form (questions of textual variation excluded).

When at first the report of the complete Isaiah scroll from Cave I was released, there were excited surmises in various quarters about the light which might be shed upon the question of the composition and authorship of Isaiah. All that it does tell us about this, however, is that the book of Isaiah existed in its present form in the earlier half of the first century B.C. (when this manuscript appears to have been copied); but that was already known. It is clear, for example, that Ben Sira (c. 180 B.C.) knew the book of Isaiah in substantially its present form, for in his eulogy of the prophet Isaiah (Ecclus. xlviii. 22-25) he assigns to

¹ *Ten Years of Discovery in the Wilderness of Judaea* (1959), p. 31.

² *New Testament Studies*, 3 (1956-7), 313 (in the final paragraph of an article, 'The Recovery of the Language of Jesus', pp. 305 ff.).

him indiscriminately passages from all three of the main divisions of the book. The Septuagint text of the book is a further witness to the same effect. The fact that there is no space between the thirty-ninth and fortieth chapters of the book in IQ Isa. A (chap. xl beginning actually on the last line of a column) tells us as little about the earlier history of the book as does the fact that there is a space between the thirty-third and thirty-fourth chapters (chap. xxxiv beginning at the top of a column, although there is room for three lines of writing at the foot of the preceding column).

To be sure, the Qumran evidence does appear to refute conclusively arguments to the effect that the book of Isaiah did not receive its present form until after the Maccabean revolt. We may think, for instance, of R. H. Kennett's suggestion¹ that the portrayal of the Suffering Servant in Isaiah lii. 13-13ii. 12 was inspired by the martyrdom of faithful Jews under Antiochus Epiphanes (between 168 and 164 B.C.), or of B. Duhm's dating² of the 'Isaiah Apocalypse' (Isa. xxiv-xxvii) in the reign of John Hyrcanus (135-104 B.C.). If we now have a copy of the book of Isaiah, complete with Servant Songs and 'Isaiah Apocalypse', assignable on palaeographical grounds to the general period of the Maccabean rising, there is no further need of argument. So, at least, one might have thought; but in a book actually dealing with the Qumran discoveries one French scholar hazarded the suggestion that the portrayal of the Suffering Servant could have been based on the historical experience of the Teacher of Righteousness, the revered leader of the Qumran community, whose death he placed between 66 and 63 B.C.³

Text

If little light is thrown by the Qumran documents on questions of date, composition and authorship, it is far otherwise with questions of textual criticism.⁴

The text of the Old Testament has come down to us along three principal lines of transmission.

There is, first of all, the Massoretic Hebrew text.⁵ This is the

¹ *The Servant of the Lord* (1911).

² *Das Buch Jesaia* (1892).

³ Cf. A. Dupont-Sommer, *The Dead Sea Scrolls* (1952), p. 96.

⁴ Cf. P. W. Skehan, 'The Qumran Manuscripts and Textual Criticism', *VT Suppl.* 4 (1957), 148 ff.

⁵ Cf. P. W. Skehan, 'Qumran and the Present State of Old Testament Text Studies: The Masoretic Text', *JBL*, 78 (1959), 21 ff.

consonantal text of the Hebrew Bible which is commonly supposed to have been fixed by Jewish scholars in the days of Rabbi Aqiba (c. A.D. 100), the text to which the Massorettes of the sixth to ninth centuries A.D. affixed an elaborate apparatus of signs which standardised the pronunciation, punctuation and (up to a point) interpretation of the text. Although the earliest surviving manuscripts of this text belong, with fragmentary exceptions,¹ to the ninth century A.D., we have witnesses to its earlier stages in quotations in the Mishnah and Talmud, in the Midrashim and Targumim, and in the Syriac (Peshitta) and Latin (Vulgate) versions of the Old Testament.

There is, secondly, the Greek version of the Old Testament commonly called the Septuagint, produced in Alexandria in Egypt in the last two or three centuries B.C., and reflecting a Hebrew text which sometimes deviates from that of the Massorettes, and which may reasonably be labelled as an Egyptian text-type.

Thirdly, so far as the Pentateuch is concerned, there is the Samaritan Bible, an edition of the Hebrew text which has for at least 2,000 years been preserved along a line of transmission quite independent of the Massoretic text of the Jews. Before the discovery of the Qumran texts, P. Kahle expressed the view that the Samaritan Bible, apart from certain adaptations in the interest of Samaritan claims, 'is in the main a popular revision of an older text, in which antiquated forms and constructions, not familiar to people of later times, were replaced by forms and constructions easier to be understood, difficulties were removed, parallel passages were inserted'.²

The discovery at Qumran of biblical texts a thousand years older than the earliest Hebrew biblical manuscripts previously known naturally gave rise to considerable excitement and speculation, especially as the possibility of our ever finding Hebrew biblical manuscripts substantially earlier than the Massoretic period had been dismissed for all practical purposes by the highest authorities.³ The general reader of the Bible asked if the new discoveries involved much alteration in the traditional text of the Old Testament; the specialist asked to which, if to any, of the known text-types the newly discovered texts could be assigned.

¹ These fragmentary exceptions are the portions of Hebrew Scripture, of the sixth century A.D. and later, found towards the end of last century in the genizah of the ancient synagogue in Old Cairo.

² *The Cairo Geniza* (1947), p. 148.

³ Cf. F. G. Kenyon, *Our Bible and the Ancient Manuscripts* (1939), p. 48.

It was possible immediately to reassure the general Bible reader that he could go on using the familiar text with increased confidence in its substantial accuracy. The new evidence confirmed what there was already good reason to believe—that the Jewish copyists of the early Christian centuries carried out their work with the utmost fidelity. To be sure, it was inevitable that a number of scribal errors should find their way into the text in the course of a thousand years of copying and recopying the Scriptures, in spite of all the care taken to prevent this; and it seemed probable that here and there the new discoveries would help to correct some of these.

For example, when the text of 1Q Isaiah A was made available, the Revised Standard Version of the Old Testament had reached an advanced stage of production, but the revisers saw fit to adopt thirteen readings in which that manuscript deviates from the traditional Hebrew Text.¹ Thus, whereas Isaiah xiv. 4 appears in R.V. as 'How hath the oppressor ceased! the golden city [margin, "exactress"] ceased!', R.S.V. renders it 'How the oppressor has ceased, the insolent fury ceased!', and adds a footnote to the word 'fury' as follows: 'One ancient Ms Compare Gk Syr Vg: The meaning of the Hebrew word is uncertain.' The Massoretic text reads *madhebah*, which was interpreted as related to the Aramaic *dhb* ('gold'); but this was almost certainly a scribal error caused by the close resemblance between the letters *d* and *r*, and 1Q Isaiah A (which, of course, has no vowel-points) reads *mrhbh*, which the R.S.V. relates to the root *rhb* ('be proud'). The renderings of the Greek, Syriac and Latin versions could represent *mrhbh*, but not *madhebah*.

Again, in Isaiah xxi. 8 R.S.V. says: 'Then he who saw cried: "Upon a watchtower I stand, O Lord . . ."' and in a footnote invokes the authority of 'one ancient Ms' for this reading against the unsuitable Massoretic reading 'a lion'. The 'one ancient Ms' is 1Q Isaiah A, which reads *hr'h* as against M.T. *ha'aryeh* (whence A.V., 'And he cried, A lion . . .', and R.V., 'And he cried as a lion . . .'). The reference is to a watchman looking for the approach of a messenger across the Syrian desert from Babylon.

In Isaiah lx. 19 1Q Isaiah A adds the phrase 'by night' to the second clause, thus completing the parallelism. Here too R.S.V. follows it, reading: 'The sun shall be no more your light by day; nor for brightness shall the moon give light to you by night' (with a footnote which

¹ Cf. M. Burrows, *The Dead Sea Scrolls* (1955), pp. 304 ff.

appeals to the evidence of the Greek and Old Latin versions and the Targum, as well as of 'one ancient Ms'). R.V., on the other hand, following M.T., renders: 'The sun shall be no more thy light by day, neither for brightness shall the moon give light unto thee.'

There is, however, one place where R.S.V. does not follow a significant reading of 1Q Isaiah A, although it might have been expected to do so, the more so since this reading appears also in 1Q Isaiah B (which in general is much closer to the Massoretic text than 1Q Isaiah A is). That is in Isaiah liii. 11, where these two manuscripts add the word 'light', so as to read: 'After his soul's travail he will see light.' It had frequently been suggested that 'light' originally stood in the Hebrew text here, but had fallen out accidentally, since it was present in the Septuagint version; but now this suggestion was confirmed by the appearance of the word in these two ancient texts of Isaiah. Yet R.S.V. does not adopt this reading, but paraphrases M.T.: 'he shall see the fruit of the travail of his soul.'

Another attractive reading of 1Q Isaiah A which is not mentioned in R.S.V. is in Isaiah xl. 12, where we find 'Who has measured *the waters of the sea (my ym)* in the hollow of his hand?' as against M.T. 'Who has measured *the waters (mayim)* in the hollow of his hand?'

Although some of the readings in which 1Q Isaiah A differs from M.T. are attested by the Septuagint,¹ 1Q Isaiah A does not in general exhibit the type which we may presume to have lain before the Septuagint translators. It is rather a popular and unofficial copy produced by amateur scribes for the use of readers who were not very familiar with Hebrew, but its text-type is in general that from which the Massoretic text-type is descended.

The widespread destruction of copies of Hebrew Scripture in the persecution of Palestinian Jews in 168 B.C. and the following years created a great demand for fresh copies when the persecution died down. While this demand may have been met in part by the production of such popular copies as 1Q Isaiah A, something more accurate and reliable must have been required for synagogue services and for study in the schools. Not only would fresh copies be made on the basis of those which had escaped the destruction, but trustworthy copies would be imported from Jewish communities outside Palestine.

As examination of the biblical manuscripts from Qumran progresses, it becomes ever clearer that they do not represent one text-type only,

¹ Cf. J. Ziegler, 'Die Vorlage der Isaias-Septuaginta (LXX) und die erste Isaias-Rolle von Qumran (1Q Is^a)', *JBL*, 78 (1959), 34 ff.

but all three of those we have already mentioned, if not indeed others as well. In addition to those manuscripts which exhibit the 'proto-Massoretic' text-type, there are several which exhibit the sort of Hebrew text which must have lain before the Septuagint translators, and yet others which have close affinities with the Samaritan Pentateuch. If the Septuagint *Vorlage* is an Egyptian text-type, and the Samaritan Bible in essence a popular Palestinian text-type, then it may be that the proto-Massoretic text is of Babylonian provenience.

During the study of the biblical fragments which were found when Cave I was explored by an archaeological party in 1949, it was announced that a Hebrew fragment of Deuteronomy exhibited a reading in xxxi. 1 which agreed with the Septuagint ('And Moses finished speaking all these words') and not with M.T. ('And Moses went and spoke these words'). But with the discovery of Cave IV in 1952 much more evidence of the same kind came to light.

For example, a Hebrew fragment of Exodus (4Q Exod. A) agrees with the Septuagint against M.T. by giving the number of Jacob's descendants in i. 5 as seventy-five instead of seventy (cf. Acts vii. 14, where Stephen, as throughout his speech, relies upon the Septuagint text).

A tiny fragment of Deuteronomy from Cave IV presents us for the first time with documentary evidence for a Hebrew reading which had long been inferred on the basis of the Septuagint. According to M.T., 'the Most High . . . set the bounds of the peoples according to the number of the children of Israel', but the Septuagint says ' . . . according to the number of the angels of God', whence it had often been deduced that the underlying Hebrew read (in place of M. T. *benê Yisra'el*) *benê 'el* or *benê 'elohim*, 'sons of God'.¹ It is the latter phrase that is shown by this fragment from Cave IV.

Another interesting reading in the same chapter is exhibited by a small roll from Cave IV which contains this chapter only (the Song of Moses). The end of the Song in the Septuagint diverges markedly from M.T., especially in verse 43, which is twice as long in the Septuagint as in M.T. (It is from this longer text that Hebrews i. 6 derives the quotation, 'Let all the angels of God worship him'.) The Hebrew original of these Septuagint readings is preserved in this roll from Cave IV.

¹ So R.S.V. on the basis of the Greek version; the Cave IV Hebrew fragment was not known when the R.S.V. was made.

In the summer of 1958 J. T. Milik identified a passage from the middle of Deuteronomy xxxii on another fragment from Cave IV, presenting further Hebrew readings previously known only from the Septuagint—notably the expansion at the beginning of verse 15, ‘But Jacob ate and grew fat, and Jeshurun kicked’, and the reading ‘was moved to jealousy’ (Heb. *wyqn*) instead of M.T. ‘abhorred’ (Heb. *wayyin’as*) in verse 19.

The best-preserved biblical manuscript from Cave IV is a copy of Samuel in Hebrew (4Q Sam. A). This scroll originally contained fifty-seven columns, of which parts of forty-seven survive. It is of particular interest, because not only does it exhibit very much the type of text which the Septuagint translator of Samuel must have used, but a type of text closer to that which the author of Chronicles appears to have used in the compilation of his work than to the M.T. of Samuel. P. W. Skehan¹ suggests that the M.T. of Samuel is a ‘scissored’ text, in which certain material has been removed from an earlier ‘vulgar’ text of which 4Q Samuel A and the Septuagint together give us information.

Among the prophetic books, Jeremiah shows the greatest divergence between the Septuagint and M.T., the Septuagint attesting a shorter text. This shorter text is exhibited in a Hebrew copy from Cave IV (4Q Jer. B), but the longer recension is also represented at Qumran.

A fragmentary scroll of Exodus from Cave IV, written in palaeo-Hebrew script, shows a type of text hitherto regarded as distinctively Samaritan. The Samaritan text is characterised by expansions, only a few of which reflect a sectarian tendency. This scroll exhibits all the Samaritan expansions for the area which it covers, except the supplement to the Tenth Commandment at the end of Exodus xx. 17, which is one of the expansions where a sectarian tendency is evident. There is thus nothing sectarian about this scroll, and its evidence confirms Dr Kahle’s suggestion, quoted above, that the Samaritan Pentateuch in essence is a popular recension of the traditional text.

The well-known document 4Q *Testimonia*, which brings together a number of ‘messianic’ proof-texts from the Old Testament, quotes as its first proof-text part of the expanded Samaritan text of Exodus xx. 21, where the words ‘Moses drew near unto the thick darkness where God was’ are followed by a conflation of Deuteronomy v. 28 f. and Deuteronomy xviii. 18 f.

¹ *JBL*, 78 (1959), 24.

In addition to manuscripts which can be classified quite confidently as belonging to one or another of these three main text-types, there are others which exhibit a mixed text, while others may belong to text-types not yet identified. Thus, from Cave IV we have a manuscript of Numbers (4Q Num. B) whose text is midway between the Samaritan and Septuagint types, and one of Samuel (4Q Sam. B) which J. T. Milik considers to exhibit a text superior to the Septuagint and M.T. alike.¹

The biblical manuscripts proper are not the only Qumran documents which provide us with the information about the biblical text; indeed, reference has already been made in this respect to 4Q *Testimonia*, which is not a biblical manuscript in the strict sense. The biblical commentaries are also useful in this respect, the more so because the commentators make skilful use of textual variants. Where one variant suits a commentator's purpose better than another, he will use it, although his exposition may show plainly that he is well aware of an alternative reading. Out of several instances that might be given, let one suffice.

The M.T. of Habakkuk ii. 16, as rendered in R.V., runs: 'Thou art filled with shame for glory: drink thou also, and be as one uncircumcised. . . .' For 'be as one uncircumcised', however (Heb. *he'arel*), the Septuagint and Peshitta read 'stagger', which presupposes Heb. *hera'el*; and this is the basis of the R.S.V. rendering, 'Drink, yourself, and stagger!' But now it appears that the Qumran commentator on Habakkuk (1Q p Hab.) read *hera'el* ('stagger') in his biblical text, for he quotes the first part of verse 16 in this form. But when he comes to give his exposition of the words, he indicates that he was acquainted with the alternative reading *he'arel* ('be uncircumcised'), for he combines both ideas in his application of the prophet's denunciation to the Wicked Priest: 'Its interpretation concerns the priest whose shame was mightier than his glory, for he did not circumcise the foreskin of his heart but walked in the ways of drunkenness to quench his thirst.'

As between the three main text-types, that which developed in due course into the Massoretic is superior to the other two. In a considerable number of places the new discoveries have helped us to emend it, or have confirmed emendations previously conjectured; but in general neither the Septuagint *Vorlage* nor the Samaritan text can approach the

¹ *Ten Years of Discovery . . .*, pp. 25 f.

proto-Massoretic for accuracy. It is evident that down to the end of the Second Commonwealth no one text-type was fixed as authoritative among Palestinian Jews, even in so strict a community as that of Qumran. But when, about the end of the first century A.D., a uniform consonantal text was fixed by Aqiba and his fellow-rabbis, it is clear that they proceeded with sound judgment. It is significant, by the way, that the biblical Hebrew manuscripts found in the Murabba'at caves, whose presence there evidently dates from the years of the second Jewish revolt against Rome (A.D. 132-135), uniformly exhibit one text-type—the text-type recently standardised by Aqiba and others, the text-type which some centuries later formed the basis on which the Massorettes worked.

Canon

It is difficult to make a definite pronouncement on the limits of the biblical canon recognised by the Qumran community. It is clear that they recognised the Law and the Prophets as divinely inspired. The commentaries which are written on those books, or on excerpts from them, presuppose that they are to be treated as divine oracles, whose interpretation was a closely-guarded mystery until it was made known in the latter days to the Teacher of Righteousness. The Psalter was evidently accorded the same recognition as the Law and the Prophets. But what about the other books in the third division of the Hebrew Bible—the 'Writings'? We cannot simply infer that they were regarded as canonical from the fact that all of them (except Esther) are represented in the Qumran literature, for many other books are represented in the Qumran literature. The Qumran library evidently included many apocalyptic and pseudepigraphic works which enjoyed considerable prestige in certain sections of the population of Judaea in those days, such as Jubilees and I Enoch,¹ which appear to be closely related to the distinctive theology of Qumran. It also included fragments of Tobit (in Aramaic and Hebrew), of Ecclesiasticus (in Hebrew) and, as we have already mentioned, of the Epistle of Jeremiah (in Greek). Were these works, which large tracts of the Christian Church were to venerate as

¹ No trace has been found to date of the 'Similitudes of Enoch' (I Enoch xxxvii-lxxi). This, says Milik, 'can scarcely be the work of chance' (*Ten Years of Discovery . . .*, p. 33); he infers that the 'Similitudes' belong to a later period than that of the Qumran literature. A. Dupont-Sommer resists this argument from silence, and characterises Milik's opinion as 'très fragile' (*Les écrits esséniens découverts près de la Mer Morte* [1959], pp. 311 ff.).

deuterocanonical, venerated in any such way at Qumran? We cannot say with certainty, for the mere fact of their presence among the Qumran fragments provides no evidence one way or the other.¹

A book may be authoritative in a religious community without being given the status of a divine oracle. The *Book of Common Prayer* is an authoritative document in the Church of England, but it is not part of Holy Writ. The *Rule of the Community* was an authoritative document at Qumran, but no one suggests that it was regarded as canonical scripture. Jubilees was also an authoritative document at Qumran; the community apparently accepted the solar calendar of Jubilees as that instituted by God in the beginning (Gen. i. 14), and it is very probably the work referred to in the Zadokite document (xvi. 3 f.) as 'the book of the divisions of times into their jubilees and weeks'. But was it regarded as canonical in the sense of being divinely inspired? We cannot as yet give a confident answer to this question.

What can be said about the fact that thus far no fragment of Esther has turned up at Qumran? Obviously no sound inference can be built upon the argument from silence. Its non-appearance among the Qumran texts may be accidental. On the other hand, we know that its right to a place in the sacred canon was questioned in some Jewish quarters,² as also later in some Christian quarters,³ and it would not be surprising if it were not accepted at Qumran.

Daniel was clearly a favourite book with the Qumran sectaries, and may well have enjoyed canonical status among them.⁴ Two copies

¹ Dupont-Sommer concludes that the Qumran community acknowledged a more comprehensive Old Testament canon than the rabbis, and finds it significant that the early Christians did the same (*Les écrits esséniens . . .*, p. 310).

² Cf. TB *Megillah* 7a; *Sanhedrin* 110b.

³ It is omitted from the list of O.T. books published by Melito of Sardis (c. A.D. 170); and it is reckoned as deuterocanonical, along with Wisdom, Ecclesiasticus, Judith and Tobit, by Athanasius (A.D. 367).

⁴ F. M. Cross, discussing the 'proto-Masoretic tradition' of the Qumran manuscripts of Daniel, concludes 'that the extraordinarily free treatment of Daniel at Qumran in at least four different copies strongly suggests its non-canonical status' (*JBL*, 75 [1956], 123). D. Barthélemy (in *Discoveries in the Judaean Desert*, i [1955], 150 f.) adds the following considerations against the canonical recognition of Daniel at Qumran: (a) all the biblical manuscripts from Cave I whose format can be determined have columns whose height is twice their breadth, whereas 1Q Dan. A has columns of roughly equal length and breadth; (b) in Cave VI a papyrus copy of Daniel was found, whereas no other papyrus fragment from Cave IV or Cave VI contains a canonical book in its original language. None of these arguments strikes one as being particularly

of this book have been identified from Cave I, four from Cave IV and one from Cave VI. These follow M.T., apart from a few variant readings related to the Septuagint *Vorlage*. Fragments from Caves I and IV have preserved the two places in Daniel where the language changes—from Hebrew to Aramaic in ii. 4 and back from Aramaic to Hebrew in viii. 1. No light is thrown by the Qumran finds to date on the problem of the two languages in Daniel.

The deuterocanonical additions to Daniel (*Susanna*, *Bel and the Dragon*, the *Prayer of Azariah* and the *Benedicite*) have not been identified at Qumran. It appears from these additions that the cycle of stories about Daniel continued to grow after the publication of the canonical book,¹ and indeed we can recognise among these additional stories a variant account of one of the canonical incidents (Daniel's six days' imprisonment in the lions' den in the story of *Bel and the Dragon* is patently a variant of the incident narrated in chap. vi). And even the canonical book has been thought to have 'the appearance rather of a series of excerpts than of a continuous narrative, and the hypothesis that the present book is an abridgment of a larger work (partly preserved in its original language and partly translated) has much in its favour'.²

Now, alongside the fragments of the canonical Daniel found at Qumran fragments have also been found of one or more Daniel cycles not represented in either the canonical or deuterocanonical documents. One of these fragments, the *Prayer of Nabonidus*, written in Aramaic, represents that king as telling how he was afflicted with a sore inflammation for seven years 'in the city of Teman', and how, when he confessed his sins, he received help from one of the Jewish exiles in Babylon. This may well be a variant of the story of Nebuchadnezzar's madness in Daniel iv, but it is attached to another Babylonian king, Nabonidus (556-539 B.C.), and preserves a reminiscence of his historical residence at Teima in North Arabia.³ Further fragments of a Daniel cycle, also in Aramaic, represent Daniel as rehearsing events of biblical

strong. In any case, since Barthélemy wrote this, a papyrus copy of Kings (an undoubtedly canonical work) has been identified from Cave IV.

¹ Cf. further additions in Josephus, *Antiquities*, x. 260 f., 264 f.

² C. H. H. Wright, *An Introduction to the Old Testament* (1891), pp. 193 f.

³ Milik (*Ten Years of Discovery . . .*, p. 37) expresses the opinion that this account, in an oral or written form, seems to have been the source of Dan. iv. Nabonidus, of course, was the father of Belshazzar, and it is the father of Belshazzar (albeit named Nebuchadnezzar) to whom the seven years of madness are ascribed in Dan. v. 20 f. Cf. D. N. Freedman, 'The Prayer of Nabonidus', *BASOR*, No. 145 (February 1957), pp. 31 f.

history from the Deluge and the Tower of Babel down to Hasmonean times, and going on from there to predict what is to happen in the end-time.¹

These discoveries may not add to our knowledge of the history of the Old Testament canon, but further study of them may illumine a number of the literary problems of the book of Daniel.

Interpretation

The interpretation of Old Testament scripture exhibited by the *pesharim* and related Qumran documents is based upon the following principles:²

- (a) God revealed His purpose to His servants the prophets, but this revelation (especially with regard to the time of the fulfilment of His purpose) could not be properly understood until its meaning was made known by God to the Teacher of Righteousness, and through him to the Qumran community.³
- (b) All that the prophets spoke refers to the time of the end.
- (c) The time of the end is at hand.

These principles are put into operation by the use of the following devices:

- (a) Biblical prophecies of varying date and reference are so interpreted as to apply uniformly to the commentator's own day and to the days immediately preceding and following—that is, to the period introduced by the ministry of the Teacher of Righteousness and the emergence of the eschatological community of the elect.

¹ Among several points of interest in this cycle is the occurrence of the name *blkrws*, i.e. Balakros, the full form of which Balas (Alexander Balas) is a hypocoristic (*balakros* is an adjective meaning 'bald', the Macedonian equivalent of the general Greek *phalakros*). Fragments of other proper names survive in the same context, where it is said that '... *rhws*, son of ... *ws*, [reigned ...] years'—possibly 'Demetrius, son of Demetrius' (1 Macc. x. 67).

² I have dealt with this subject more fully in *Biblical Exegesis in the Qumran Texts* (1958).

³ The revelation, that is to say, is given in two stages: first the 'mystery' (*raz*) is communicated to the prophet, but it remains a mystery until the 'interpretation' (*pesher*) is communicated to the Teacher, and through him to his followers. Members of the community therefore praise God in the *Hodayoth* that He has made known to them His wonderful mysteries (cf. Mark iv. 11 f.; 1 Peter i. 10-12). We may compare how, in the book of Daniel, part of a divine revelation is conveyed as a 'mystery' as in Nebuchadnezzar's dreams or the writing on the wall at Belshazzar's feast; not until the other part of the revelation is conveyed as 'interpretation' to Daniel, and declared by him, is the revelation completed and understood.

- (b) The biblical text is atomised so as to bring out its relevance to the situation of the commentator's day; it is in this situation, and not in the natural sequence of the text, that logical coherence is to be looked for.
- (c) Variant readings are selected in such a way as best to serve the commentator's purpose.
- (d) Where a relation cannot otherwise be established between the text and the situation to which (*ex hypothesi*) it must refer, allegorisation is resorted to.

The most important of the Qumran *pesharim* is the commentary on the first two chapters of Habakkuk found in Cave I. As I have devoted some attention to this document elsewhere,¹ it is appropriate to consider here rather some of the shorter or more fragmentary samples of the same genre.

In a commentary on Isaiah from Cave IV (4Q p Isa. A), the Assyrian advance and downfall of Isaiah x. 22 ff. are interpreted of the eschatological 'war of the Kittim'.² The leader of the Kittim (or so it appears, for the document is sadly mutilated) goes up from the plain of Acco to the boundary of Jerusalem. Then follows a quotation of Isaiah xi. 1-4, which is (very properly) interpreted of the 'shoot of David', the Davidic Messiah, who is to arise in the latter days to rule over all the Gentiles, including 'Magog', but takes his directions from the priests. This is in line with the general messianic expectation cherished at Qumran, in which the priesthood (and particularly the 'Messiah of Aaron') is envisaged as taking precedence over the Davidic Messiah, whose main function is to lead his people to victory in battle.

A fragmentary commentary on Micah from Cave I provides a good example of allegorical interpretation. Here the words, 'What is the transgression of Jacob? is it not Samaria?' (Mic. i. 5), are interpreted of 'the Prophet of Falsehood, who leads astray the simple', while the following words, 'and what are the high places of Judah? are they not Jerusalem?', are interpreted of 'the Teacher of Righteousness, who teaches the law to his people and to all those who offer themselves to be gathered in among God's elect, practising the law in the council of the community, who will be saved from the day of judgment'. The Teacher of Righteousness we know; the Prophet of Falsehood is evidently the leader of a rival sect—the Pharisees, in my opinion. But the only way of reading these two rival leaders out of Micah's reference to the transgression of Jacob and the high places of Judah is first of all to read them in—by arbitrary allegorisation.

¹ Cf. 'The Dead Sea Habakkuk Scroll', *Annual of the Leeds University Oriental Society*, I. (1958-59).

² Further details of this war are given in the *Rule of War* (IQM).

Considerable portions have survived of a commentary on Psalm xxxvii from Cave IV. Here 'those that wait upon the LORD,' those who 'shall inherit the land' (verse 9), are 'the congregation of His elect who do His will'—i.e. the Qumran community. The 'little while' after which 'the wicked shall not be' (verse 10) is the probationary period of forty years at the end of the age, comparable to the probationary period of forty years in the desert in Moses' day.¹ At the end of the eschatological period of forty years 'there will not be found in the earth any wicked man' (how the wicked are to be got rid of in just that period is explained in greater detail in the *Rule of War*). 'The wicked', who 'have drawn out the sword and have bent their bow, to cast down the poor and needy' (verse 14) are 'the wicked ones of Ephraim and Manasseh who will seek to put forth a hand against the priest and the men of his counsel in the time of trial which is coming upon them'.² The 'priest' is certainly the Teacher of Righteousness.³ But he and his followers will not be left to the mercy of their enemies; 'God will redeem them from their hand, and afterwards they [the wicked] shall be given into the hand of the terrible ones of the Gentiles for judgment'. The 'terrible ones of the Gentiles' are no doubt the Kittim, who in 1Q p Habakkuk are the executors of divine wrath against the persecutors of the Teacher of Righteousness. There is a further possible reference to the Teacher of Righteousness in the comment on verses 32 f. ('The wicked watcheth the righteous, and seeketh to slay him. The LORD will not leave him in his hand, nor condemn him when he is judged'); but the comment unfortunately is very defective: 'Its interpretation concerns the Wicked [Pries]t who s[ent to the Teacher of Righteousness . . .] to slay him . . . and the law which he sent to him. But God will not le[ave him in his hand] nor [condemn him when] he is judged.' But if the commentator did see a reference to the Teacher of Righteousness in this passage (which, on the analogy of Qumran interpretation of similar passages, is highly probable), the Wicked Priest's attempt to slay the Teacher seems to have been unsuccessful, for his deliverance is mentioned here as in the comment on verse 14.

¹ Cf. the implication of the 'forty years' in Heb. iii. 9 ff.

² Cf. 4Q *Florilegium*, where a comment on Ps. ii. 1 f. refers to 'the chosen ones of Israel in the last days, that is, the time of trial which is coming'.

³ The Teacher is expressly called 'the priest' in col. 2, line 15, of this same *peshet*; cf. 1Q p Hab., col. 2, lines 8 f.: 'the priest into whose [heart] God has put [wisdo]m, to interpret all the words of his servants the prophets.'

It has, of course, become a major preoccupation of students of the Qumran literature to interpret the Qumran commentaries so as to elucidate their historical and personal references. The difficulty of doing so may be gauged by the great variety of solutions proffered. One source of difficulty is that leading personalities are denoted by descriptive titles rather than by personal names. Many a religious minority will venerate a Teacher of Righteousness, complain of persecution at the hands of a Wicked Priest, and despise the easy-going majority of Seekers after Smooth Things, followers of a Prophet of Falsehood. Even the Gentile power which looms so largely in the literature is mentioned allusively as the Kittim, a term which in itself might denote either Greeks¹ or Romans.²

Occasionally we may think we have found a more definite clue. Thus the document 4Q *Testimonia* ends with these words:

When Joshua had finished praising and giving thanks in his praises, he said: 'Cursed be the man that buildeth this city: with his firstborn shall he lay the foundation thereof, and with his youngest son shall he set up the gates of it.' And behold, an accursed man, one of the sons of Belial, shall stand up, to be a very sna[re of the f]owler to his people, and destruction to all his neighbours. And he shall stand up³ . . . [so that] they two may be instruments of violence. And they shall build again the . . . [and s]et up a wall and towers for it, to make a stronghold of wickedness . . . in Israel, and a horrible thing in Ephraim and Judah, . . . [and they shall w]ork pollution in the land, and great contempt among the sons of . . . [and shall shed b]lood like water on the rampart of the daughter of Zion, and in the boundary of Jerusalem.

This passage is said to be an extract from a work called the *Psalms of Joshua*, which is independently attested among the Cave IV material. It does not belong strictly to the *pesher* category, but the passage quoted above certainly follows *pesher* principles in its interpretation of Joshua's curse on the rebuilders of Jericho (Joshua vi. 26).

According to M.T., Joshua said, 'Cursed be the man before the LORD, that riseth up and buildeth this city Jericho'. It may be that the word Jericho was absent from the Qumran author's copy of Joshua (as it is from the Septuagint), but the context makes it clear that Joshua was referring to Jericho. It is not certain, however, that the Qumran author applied the curse to a rebuilding of Jericho; he may

¹ As in I Macc. i. 1; viii. 5.

² As in Dan. xi. 30.

³ J. T. Milik, who supplements some lacunae in 4Q *Testimonia* here with the help of 4Q *Psalms of Joshua* (thus far unpublished), renders the beginning of this sentence 'And he stood forth and [made his sons] rulers' (*Ten Years of Discovery* . . ., p. 61).

have had another incident in mind, such as one of the successive fortifications of Jerusalem; conceivably, but improbably, he may have intended the 'city' in a metaphorical sense.¹

If, however, we look for a man with two sons, all in positions of authority, who take a leading part in the rebuilding of a Judaeen city, and cause great bloodshed in the precincts of Jerusalem, we have an embarrassing wealth of choices. F. M. Cross says that 'the application of the passage to Simon and his older and younger sons Judas and Mattathias, and their deaths in Jericho is almost too obvious to require comment. The slaughter in Jerusalem and its environs described in the last lines reflects the attack of Antiochus Sidetes upon Judaea in 134-132 B.C. immediately following Simon's death.'² But the application is not so obvious to many other scholars. J. T. Milik³ prefers to think of Mattathias (father of the Maccabees) and his two sons Jonathan and Simon, both of whom took part in the rebuilding of Jerusalem's fortifications (1 Macc. x. 10 f.; xiii. 10; xiv. 37). (The reference to Jerusalem at the end of the passage does at least suggest that it, and not Jericho, is the city whose rebuilding the commentator has in mind.) But the idea that the pious Mattathias should be described as 'one of the sons of Belial' makes one lift an eyebrow, to say the least.

If we pass other members of the Hasmonean family in review, we may think of Jonathan, whose two sons were unsuccessfully sent to Trypho as hostages for their father's release (1 Macc. xiii. 16 ff.); of John Hyrcanus and his two sons Aristobulus I and Alexander Jannaeus; of Jannaeus and his two sons Hyrcanus II and Aristobulus II; or even of Aristobulus II and his two sons Alexander and Antigonus. If we cast our net wider, we may think of Antipater and his two sons Phasael and Herod; or of Herod and his two sons by Mariamne, Aristobulus and Alexander; or even of Vespasian and his two sons Titus and Domitian.⁴ The later identifications in this list can probably be excluded on palaeographical grounds. For 4Q *Testimonia* is said to be the work of

¹ In 1Q p Hab. the town built with blood of Hab. ii. 12 is perhaps interpreted figuratively; cf. the builders of the wall in CD iv. 19.

² *The Ancient Library of Qumran and Modern Biblical Studies* (1958), p. 113. For Simon's death, cf. 1 Macc. xvi. 11 ff.; for the subsequent invasion of Antiochus VII, cf. *Jos. Ant.* xiii. 236 ff.

³ *Ten Years of Discovery . . .*, pp. 63 f.

⁴ Cf. C. Roth, *The Historical Background of the Dead Sea Scrolls* (1958), p. 37: 'This could well be a reference to Vespasian's capture of Jericho in 68, though there is no need to insist on this point.' (In a footnote Roth suggests that the execrated builder of Jericho might be Herod.)

the same scribe as 1QS (the copy of the *Rule of the Community* found in Cave I), which the palaeographers date in the earlier part of the first century B.C. If this date is upheld, it might be felt to rule out even the otherwise attractive identification of the parties concerned with Jannaeus and his two sons; but the palaeographical evidence must be carefully scrutinised before we dismiss an interpretation which would recognise the civil strife between Hyrcanus II and Aristobulus II, with the consequent intervention of the Romans, as the occasion of the bloodshed around Jerusalem. But at least this may serve as an example of the difficulty of correlating the biblical exegesis of Qumran with events in the relevant period of Jewish history.¹

There is, however, one fragmentary *peshet* which actually refers to historical characters by name. This is the commentary on Nahum from Cave IV, which explains the prophet's description of Nineveh as a den 'where the lion and the lioness walked, the lion's whelp, and none made them afraid' (ii. 11) as a reference to '[Deme]trius, king of Javan, who sought to enter Jerusalem by the counsel of the Seekers after Smooth Things'. The personal name is unfortunately mutilated, but it can scarcely be anything but Demetrius. We have a choice between three Seleucid kings of that name—Demetrius I (162-150 B.C.), who sent Nicanor to seize Jerusalem at the instigation of the high priest Alcimus and his supporters; Demetrius II (145-139/8 B.C.), who sent a force against Jonathan; Demetrius III (95-88 B.C.), who invaded Judaea at the invitation of Jannaeus' hostile Jewish subjects. The Seekers after Smooth Things, who are mentioned in other places in Qumran literature, are best identified with the Pharisees, who led the opposition to Jannaeus throughout most of his reign.

The comment on Nahum ii. 11 continues: '[Never has that city been given] into the hand of the kings of Javan from Antiochus to the rise of the rulers of the Kittim, but ultimately it will be trodden down [by the Kittim].'² This Antiochus may well be Sidetes, whose demolition of the walls of Jerusalem early in the reign of John Hyrcanus (135-104 B.C.) was the last effective action by a Gentile ruler against the city until Pompey entered it in 63 B.C. In that case the Demetrius

¹ J. L. Teicher considers that in this passage from 4Q *Testimonia* 'Joshua' is to be understood typologically as Jesus, and that the son of Belial is the future Antichrist, who is to rebuild Jerusalem as his capital ('Dead Sea Fragment of an Apocryphal Gospel', *Times Literary Supplement*, 21 March 1958).

² The supplementation is uncertain; cf. Dupont-Sommer, *Les écrits esséniens* . . . , p. 280.

mentioned in the previous sentence of the commentary will surely be Demetrius III. It may also be pointed out that the reference in this context to 'the rulers of the Kittim' makes the identification of the Kittim with the Romans practically certain.

Nahum ii. 12 goes on: 'The lion did tear in pieces enough for his whelps, and strangled for his lionesses, and filled his caves with prey, and his dens with ravin'; in these words the commentator sees a reference to 'the young lion of wrath, who smote with his mighty ones and the men of his counsel' and 'took vengeance on the Seekers after Smooth Things, in that he proceeded to hang them up alive, [which was never done] in Israel before, for concerning one hung up alive on a tree the Scripture says. . . .' What the Scripture says is that such a person is 'accursed of God' (Deut. xxi. 23); but our scribe evidently could not bring himself to pen such ill-omened words. In any case, the Scripture envisages the hanging of a dead body on a tree; the Qumran commentator on Nahum has something more dreadful in mind—hanging men up alive, in other words, crucifying them. That 'such a thing was never done in Israel before' means that it had never been done by an Israelite. We know that Jewish confessors were crucified by Antiochus Epiphanes, but the first Jewish ruler to punish his enemies in this way, so far as we know, was Jannaeus. The Seekers after Smooth Things were not approved of by the Qumran community, but to crucify them was a blasphemous atrocity. (It may be remarked in passing that there is no implication that the Teacher of Righteousness or his followers were among those crucified by the 'young lion of wrath'.)

The Nahum commentary, then, provides us with more certain criteria for relating Qumran exegesis to history than we find in the other commentaries published to date.¹ And these criteria may, with due caution, be used to throw light on ambiguous references in other Qumran texts. The Qumran commentaries plainly do not give us much help in understanding the Old Testament. But the serious student of Scripture can never fail to be interested in what was thought of its meaning by serious students of earlier days; and in this regard the Qumran commentaries on the Old Testament have opened a new world for our exploration.

¹ Other historical names—*šmšywn* (Salampsio, i.e. Queen Salome Alexandra), *hwrqnws* (Hyrcanus) and *'mlyws* (Aemilius, i.e. Aemilius Scaurus)—appear in a fragmentary sectarian calendar from Cave IV (Milik, *Ten Years of Discovery* . . ., p. 73); cf. also p. 21, n. 1 above.

T. C. MITCHELL, M.A.

Archaeology and Genesis i-xi

Introduction

A. The Plan

The first eleven chapters of Genesis form a section which is clearly distinct from what follows. In chapter xi, verse 26, Abram is introduced and here begins the story of the Patriarchs. Recent archaeological discovery at such sites as Mari, Nuzi, and Alalakh has served to show that the stories of the patriarchs fit well into the situation of the Middle Bronze Age in Western Asia, which followed on the opening of the second millennium B.C. It is now generally accepted therefore that the time of Abraham is to be placed in the first quarter of the second millennium, though opinions vary as to any more precise dating. From Genesis xi. 27 onwards therefore the general picture can be seen, and it is the filling in of details which claims attention.

For the first eleven chapters a different picture prevails. The people and events described seem more remote, and archaeology has yielded less which can have a definite bearing. Though it is extremely unlikely that any direct light on these early chapters is to be found, it may be that just as the general background of the Patriarchal Age is beginning to emerge without any direct reference to a Biblical character or event, there may be something in the general picture of the earlier period to be connected with these eleven chapters. It will be useful therefore to review the results of prehistoric and early historic research in the light of this question. This will not be prejudging the issue of the interpretation of these chapters, which will be discussed later, but is the necessary basic approach.

The method adopted will therefore be to survey the present view of early human history down to the first quarter of the second millennium B.C., or about the time of the patriarchs, then to examine the Bible record for any indications which may be relevant in this respect, and finally to draw any conclusions that there may be as to their relationship.

Before examining the archaeological results concerning these early periods, it will be a good thing to give a brief sketch of the history of the study of the subject, because some of the views held today can be better understood and assessed with a knowledge of their antecedents.

B. Historical Sketch

During the late eighteenth and the nineteenth centuries, the expansion of industrial civilisation, involving as it did much excavation for railways and the foundations of buildings, opened the way for the development of geology and its related studies. On the basis of the new materials thus revealed, James Hutton (1785), and following him William Smith (1816) and Lyell (1830-33) developed the principle of observing the conditions of geological action in their own time, and projecting them into the past, to provide a key for interpretation.

The budding science of prehistoric archaeology was developed in the main by the followers of this school, so that the great age of the earth and the principle of uniformitarianism were matters of common acceptance. From as early as the 1820s and 1830s, flint implements and apparently human skeletal remains had been found in geological deposits of great age, and sometimes in association with animals now extinct, but it was not until 1859 that the view was generally adopted that these implements were of human manufacture, and betrayed the presence of 'man' in early periods.

It was of course in this same year that *The Origin of Species* was published. Almost all the essential ingredients for the idea of evolution were present, as Professor Butterfield has pointed out,¹ by the end of the eighteenth century, and it only required the theory of natural selection, as propounded in 1858 (almost exactly a hundred years ago) by Darwin and Wallace, for it to receive wide acceptance. As a result the principle of evolution was freely applied outside the field of palaeontology, notably by Herbert Spencer to human social institutions, but also by Tylor, Marrett and others to religion, Haddon to art, Pitt-Rivers even to the service rifle, and Wellhausen in some degree to Old Testament history.

In line with this tendency, it was natural that the findings of prehistoric archaeology should be interpreted as demonstrating the evolution of culture. There were two possible approaches to this, one

¹ H. Butterfield, *The Origins of Modern Science, 1300-1800* (London, 2nd edn., 1957), pp. 201 ff.

through the study of the ancient remains of man, and the other through the study of surviving primitive peoples.

The first approach had its inception in Denmark, where in the first half of the nineteenth century C. J. Thomsen, the curator of the National Museum in Copenhagen, developed a system for the classification of the disordered archaeological material under his care. According to this, the objects were divided into three groups according as their material was stone, bronze, or iron, and these were claimed to represent three chronologically successive ages. This idea was adopted by Sven Nilsson, Professor of Zoology at Lund, and the three ages treated as stages in the evolution of culture. In England the scheme was adopted by John Lubbock, and in 1865 he invented the names Palaeolithic and Neolithic for the sub-periods of chipped and polished stone. This, with two additional periods, became the accepted general scheme for the evolution of human culture: Palaeolithic-Mesolithic-Neolithic-Chalcolithic-Bronze Age-and Iron Age, having universal validity.

One of the earliest formulators of the second approach was again Sven Nilsson. He classified the various primitive tribes surviving in the nineteenth century, and those known from classical authors, according to their means of subsistence, into savages, depending on hunting, fishing and collecting, herdsmen or nomads, and agriculturists, and assumed that human society must have developed through these stages in that order, ending up with civilisation. This scheme was modified by the American L. H. Morgan into three main stages, savagery, barbarism, and civilisation, which were adopted by Tylor and defined; barbarism by the arrival of agriculture; and civilisation by the introduction of writing. These three stages were therefore arrived at by projecting into the past the theoretical classification of modern primitive peoples according to their mode of subsistence.

These two approaches have been combined into a new scheme, chiefly by Professor Gordon Childe,¹ whereby a framework for pre-history has been provided by the postulating of what he calls economic revolutions, at which marked population increases became possible. According to this plan, the successive stages of human development were as follows: Food Gathering = Savagery = the Palaeolithic and Mesolithic Periods; terminated by the 'Neolithic Revolution' which

¹ First put forward in *The Most Ancient East* (1928), stated in more detail in 'Archaeological Ages as Technological Stages', *Journal Roy. Anth. Inst.*, 74, (1944), 7-24, and popularised in *Man Makes Himself* (1936), and *What Happened in History* (1942).

introduced; Food Producing = Barbarism = the Neolithic Period, which led to the 'Urban Revolution' which introduced; Civilisation, characterised par excellence by writing and living in cities. This view, put forward between the wars, though not rigidly interpreted, has been widely accepted.¹

Since the war, Professor R. J. Braidwood of Chicago has adopted the scheme, with modifications in terminology, and has devoted particular attention to the so-called 'Neolithic' or food-producing revolution, exploring in the area of Hither Asia with the avowed aim of discovering archaeological evidence of the transition from food-gathering to food-producing.²

There is no doubt that this hypothesis of the development of human culture from ancient times provides a framework into which the actual archaeological remains fit remarkably well, but this should not be allowed to obscure the fact that it is based on the speculations outlined above. There are many gaps still in the archaeological record, and in no one place is a continuous sequence of occupation known from the very earliest times. These gaps are obscured by the nature of the hypothesis which lends itself to deceptive generalisations where there is no material evidence to cite.

Archaeological Evidence

The archaeological evidence can best be surveyed under five headings.

First, Geology provides a general chronological frame for the Pleistocene Ice Age, in terms of (on present evidence) four main phases of glacial advance, when ice masses centring mainly on the Canadian Shield and the Scandinavian Mountains, and smaller ones on the Alps, Himalayas, and the Verkhojansk-Kolyma range, advanced southward, and in the intervals retreated sometimes further north than at the present time. Zones of tundra, forest, and steppe moved in concert, varying the areas further south, with corresponding periods of greater rainfall, which so-called 'pluvial' periods are tentatively

¹ E.g. J. G. D. Clark, *From Savagery to Civilization* (1946); S. H. Hooke in H. W. Robinson ed., *Record and Revelation* (1938), pp. 350-352; E. C. Curwen, *Plough and Pasture* (1946), pp. 39-40; though Frankfort enters some reservations in *The Birth of Civilization in the Near East* (1951), pp. 38, n. 3, 57, n. 2.

² *The Near East and the Foundations for Civilization* (1952), and in more detail in *J. World History*, I (1953), 278-310, and in many other articles.

correlated with the northern glacials. In the periods of glacial maximum, sea level was low, but when the interglacial melting took place, the water level rose well above present sea level. For post-glacial times, varved sediments provide means for giving absolute dates, the beginning of the post-glacial being conventionally defined at about 8000 B.C., and related disciplines give the solar radiation and the radiocarbon methods of dating. The solar radiation results on the one hand differ largely from the radiocarbon and varve results on the other. As the present tendency is to favour the latter, and these only give satisfactory results for post-glacial times, dates in figures are best avoided for the Glacial Period proper.¹

The second main source is Botany, which provides, through analysis of the succession of pollen and plant types in stratified peat deposits, a frame of post-glacial forest history for northern Europe. The post-glacial period is shown to have had a steady rise in temperature to a period of climatic optimum between about 5000 and 2500 B.C., after which it deteriorated.² In more direct connection with man, the study of the present distribution of the wild forms of wheat and barley, the cereal crops which formed the staples of the earliest 'Neolithic' farming communities, give a possible clue to the area of the first farmers. These grasses occur today in the upland zone stretching from Palestine and southern Anatolia to Iran.³

The third main body of evidence is provided by Palaeontology, in the form first of animal remains, and second those of man. Fossil animals give a clue, in the first place, to the climate of the area in which they lived, but also, when found in human contexts, such criteria as reduction in size of bone, tooth, and horn, and weaker ridges for muscle attachment, may indicate the presence of domesticated animals. Also in connection with the question of stock raising, it is worth noting

¹ The most recent compilation on the Pleistocene is J. K. Charlesworth, *The Quaternary Era; with special reference to its glaciation* (London, 1957), 2 vols.; see also F. E. Zeuner, *The Pleistocene Period* (2nd edn., London, 1959), and *Dating the Past: An Introduction to Geochronology* (3rd edn., London, 1952), Parts ii and iii; R. A. Daly, *The Changing World of the Ice Age* (New Haven, 1934); and H. Shapley, ed., *Climatic Change: Evidence, Causes and Effects* (Harvard U. P., Cambridge, 1953).

² See, e.g. H. Godwin, *The History of the British Flora* (Cambridge, 1956), pp. 1-63.

³ See, e.g. F. E. Zeuner, 'Cultivation of Plants' in C. Singer *et al.* eds., *A History of Technology* (Oxford, 1954), vol. i, pp. 353-375; E. C. Curwen, *Plough and Pasture*, pp. 4-27, 38-48.

that the sheep and goat, the two earliest domesticated genera, are found in the wild state today, in much the same region as the wild cereals.¹

The fossil remains of man are too numerous to be mentioned in any but the most cursory manner here, only the main groups being distinguished.² Owing to the fact that in the West it is not until the beginning of the fourth and last glaciation that any human remains are found in their original settlement deposits, materials before that time are often of doubtful date, or if found in a secure geological horizon, can only be assigned to the general period of the deposit. Hitherto the principal method of dealing with the supposed fossil remains of man has depended on noting their common morphological characters with modern man on the one hand, and the higher primates, Gorilla, Chimpanzee, Orang, and Gibbon on the other, and arranging them on this basis in a hierarchy between the two. Leaving aside evolutionary speculations, the Australopithecinae or South African 'man-apes'³ may be disregarded as irrelevant from the present point of view. In general three major groups of fossil humans are usually distinguished. The Pithecanthropus group, consisting mainly of the Java and Pekin specimens, with which the Mauer jaw and now the mandibles from Ternifine, Algeria, are sometimes grouped, is characterised by remains with marked ape-like features from the early part of the Pleistocene. The second large and fairly homogeneous group is formed by the Neandertalers, whose remains, mainly in Europe, belong to the end of the third interglacial and the beginning of the last glaciation. It is now customary to designate as 'Neanderteroid' such specimens as the Steinheim, Ehringsdorf, Solo, Eyasi, and Rhodesian men, which though earlier than *Homo neanderthalensis* proper, as represented par

¹ See, e.g. Zeuner, 'Domestication of Animals' in Singer *et al.* eds., *A History of Technology*, vol. i, pp. 327-352; and forthcoming book on the same subject; Curwen, *Plough and Pasture*, pp. 27-38.

² The most convenient survey now in English is M. Boule and H. V. Vallois, *Fossil Men* (London, 1957).

³ R. Broom and G. W. H. Schepers, *The South African fossil Ape-Men: The Australopithecinae* (Pretoria, 1946); Broom, *Finding the Missing Link* (London, 1950); and e.g. Sir Wilfred le Gros Clark, *History of the Primates* (6th edn., London, 1958), pp. 63-75. The recent discovery by Dr and Mrs L. S. B. Leakey of what they call *Zinjanthropus boisei* at Olduvai in Tanganyika (*Illustrated London News*, 235 (1959), No. 6268 (Sept. 19), pp. 288-289) will require study, but the remains are in Dr Leakey's opinion related in a general sense to the Australopithecinae.

excellence by the La Chapelle-aux-Saints skeleton, show the ape-like characters in smaller degree.¹ *Homo sapiens*, indistinguishable from modern man, appears in the record only during the last glaciation, arriving in Europe perhaps from the east, and replacing Neandertal man there.² A few specimens, too fragmentary for certainty, are sometimes held to show an earlier date for *Homo sapiens*. The most important of these are the Swanscombe and Fontchevade skull fragments of second and third interglacial date respectively. Professor Vallois has attached the name *praesapiens* to them, and Professor Le Gros Clark has expressed doubts as to whether they may be legitimately distinguished from *Homo sapiens*. The remains are too meagre for these conclusions to be more than tentative, but they at least demonstrate the presence well before the time of the Neandertalers, of types with a more human-like aspect.³

These fossil remains are both too few and too heterogeneous to suggest in isolation any view of evolution, but this hypothesis was already in mind in the period of their discovery, and was apparently supported by the fourth main source of evidence, the archaeological remains. These have been approached from two entirely different starting-points. The first, the continuation of the geological studies of Hutton and Lyell, began with Palaeolithic flints.⁴ Before what will be called for convenience the 'Upper Palaeolithic', very few remains other than flint implements are known, and it is only toward the end of this earlier phase that stratified caves occur. Mainly, therefore, on the basis of the manufacturing techniques of these flint and stone implements, they are divided into two major provinces. In south east Asia, crude chopping tools of stone are found, and it is this type which is associated in China with the remains of Pekin man. In vast areas to the west on the other hand, stretching from Asiatic Russia to the Cape of Good

¹ E.g. Le Gros Clark, *History of the Primates* (6th edn.), pp. 99-109; Zeuner, *Dating the Past*, pp. 298-299. The word 'customary' is here used in its broadest sense, for variations in opinion abound.

² E.g. Le Gros Clark, *History of the Primates* (6th edn.), p. 110; see also C. S. Coon, *The Races of Europe* (New York, 1939), pp. 16-51; G. M. Morant, 'A Biometric Study of the Upper Palaeolithic Skulls of Europe, and their Relationships to Earlier and Later Types', *Annals of Eugenics*, 4 (1930), 109-214.

³ H. V. Vallois, 'Neandertals and Praesapiens', *J. Roy. Anthro. Inst.* 84 (1954), 111-130; Le Gros Clark, *History of the Primates* (6th edn.), pp. 96-97.

⁴ A convenient recent survey is H. L. Movius, Jr., 'Old World Prehistory: Palaeolithic', in A. L. Kroeber, ed., *Anthropology Today* (Chicago, 1952), pp. 163-192.

Hope, a combination of what are called core and flake tool traditions are found, associated with which were the Swanscombe and Fontevchevade fossil remains. A late phase of this province, the Mousterian, seems to have been without exception the industry of Neandertal man, and it was with this phase that deliberate burial of the dead first appeared. A complete change took place with the arrival of the so-called 'Upper Palaeolithic' during the last glaciation, with which are associated the first undoubted fossil remains of *Homo sapiens*. This was the period of the famous cave paintings of southern France and Spain which artistic tendencies are also manifest on objects of bone and antler.¹ Recent excavations in the loess of Moravia and south Russia have revealed mammoth hunter settlements, with evidence of rudimentary huts, and an elaborate equipment, all from this period.² With the retreat of the last glaciers, all this comes to an end, and a series of fishing and fowling cultures known as Mesolithic have left scattered remains, the most characteristic of which are very small flint points. Though the evidence of the Palaeolithic has been most intensively studied in Europe, it is clear from recent exploration in the Middle East that these cultures flourished there too, and in Palestine a so-called Mesolithic culture, the Natufian, is found at several sites.³

The mention of the Middle East leads to the second main avenue to archaeological studies. This developed from the widespread interest in the Bible and the classical civilisations, and manifested itself in the last century in the recovery of the ancient civilisations of the Near East. These revelations naturally drew attention to the question of origins, and in the present century this has become a major field for research. On present evidence it is safe to say that there were five primary areas of early civilisation, to which all other areas were largely peripheral, namely Mesopotamia, Egypt, the Aegean, the Indus Valley, and the valley of the Yellow River in China.

Overlapping stratigraphical excavations in Mesopotamia have made it possible to trace settled civilisation back through a series of periods, Predynastic, Uruk, and Al 'Ubaid in the southern alluvial plain, and

¹ Summary in L. S. B. Leakey, 'Graphic and Plastic Arts', in Singer *et al.*, eds., *A History of Technology*, vol. i, 144-153.

² Childe, *Antiquity*, 24 (1950), 4-11; B. Klima, *Antiquity*, 28 (1954), 4-14; 30 (1956), 98-101; 32 (1958), 8-14.

³ D. A. E. Garrod, 'The Natufian Culture; The Life and Economy of a Mesolithic People in the Near East', *Proc. British Academy*, 43 (1958), 211-227.

a further Halaf to Hassuna in the uplands of the north, Hassuna already representing a farming, or 'Neolithic', community, perhaps in the fifth millennium.¹ Recent study in the southern plain has made it likely that the rate of sedimentation at the edge of the Persian Gulf has been balanced throughout history by an isostatic subsidence of the alluvial plain,² so the possibility must now be entertained that important remains may lie below the present water table, the level hitherto assumed by excavators to represent the base of a mound.

In Egypt, a similar sequence of prehistoric cultures, running back through Gerzean, Amratian, and Badarian to Tasian, has been uncovered, the Tasian again representing a 'Neolithic' community of perhaps the fifth millennium. This sequence only holds for Upper Egypt, however, the important area of the Delta having lacked intensive excavation, and apparently suffering, like lower Mesopotamia, from a rising water table.³

Estimations based on later synchronisms lead to the conclusion that in the Indus valley, where the great Harappa civilisation flourished, the earliest stratified remains do not go much before 3000 B.C., so early traces of agriculture are not illuminated by the present evidence from there.⁴

Professor Braidwood's explorations on the hilly flanks of the 'Fertile Crescent' have not as yet produced remains which can be located in the sequence on other than typological grounds, or tentative radiocarbon dating. His farming settlement at Qal'at Jarmo in Kurdistan, while apparently early on the basis of its equipment, is only given a fifth millennium date by the radiocarbon method, or probably not much earlier than Hassuna. Miss Kenyon's recent excavations at Jericho, however, would appear to have penetrated further back towards the supposed beginnings of agriculture. Near the base of the Tell she found three phases of Neolithic, the first two without pottery, and the earliest representing a settlement covering half the area of the present

¹ A. Parrot, *Archéologie mesopotamienne* (Paris, 1953), vol. ii, pp. 107-331, whose terminology is here followed; A. L. Perkins, *The Comparative Archaeology of Early Mesopotamia* (Chicago, 1949).

² G. M. Lees and N. L. Falcon, *Geograph. J.*, 118 (1952), 24-39; cf. also 120 (1954), 394-397.

³ E.g. J. Vandier, *Manuel d'archéologie égyptienne*, vol. i, part 1, *La Préhistoire* (Paris, 1952).

⁴ S. Piggott, *Prehistoric India to 1000 B.C.* (Harmondsworth, 1950); R. E. M. Wheeler, *The Indus Civilization* (Cambridge, 1953).

mound and with a stone-built tower 25 feet high and 30 feet across, next to a rock-cut ditch 8 feet deep and 27 feet across. The radiocarbon date based on a charcoal sample from this period was in the neighbourhood of 6800 B.C. This remarkably early date, soon after the final retreat of the glaciers in the north, has been questioned by Professor Braidwood, mainly on the grounds that it is unique, but two estimates from samples taken in different years from different Neolithic levels support it, so it is reasonable to accept it provisionally. It must of course remain only provisional in view of the still tentative status of radiocarbon dating.¹

In the Aegean area, where the Minoan civilisation flourished, it seems clear that the beginnings of higher culture, represented for instance by a series of Neolithic villages of the fourth millennium below the oldest Minoan levels at Knossos, were the work of immigrants from the east, so origins are not to be found there.²

The last great area of civilisation, China, is unfortunately not so well explored as the West, and the intervening area is practically a blank. Chinese civilisation, due to its long span into recent times, is commonly regarded as very ancient, but the first great flowering of the Shang Dynasty, whose remains have been uncovered at Anyang, was not until after 1500 B.C. Prior to that the situation is still uncertain, but the principal Neolithic cultures, the Yangshao and the Lungshan, are unlikely to belong before the third millennium, and a largely hypothetical Early Neolithic, not before the fifth millennium, but the evidence for this is meagre in the extreme. The Shang remains from Anyang show clear influences from the areas of civilisation in the west, and it is now becoming most likely that the Neolithic cultures were also influenced from the west.³

¹ K. M. Kenyon, *Palestine Exploration Quarterly* (1952), pp. 5-6, 72-73; (1953), pp. 83-88; (1954), pp. 47-55, 64-68; (1955), pp. 70-86, 109-114; (1956), pp. 69-77; (1957), pp. 101-107; *J. Roy. Anthro. Inst.*, 84 (1954), 103-110; *Antiquity*, 120 (1956), 184-195. In the final season of excavations at Jericho strata were traced back to early Natufian, thus providing an important link with the Mesolithic (*Antiquity*, 33 (1959), 5-9, esp. p. 8).

² Childe, *The Dawn of European Civilization* (5th edn., London, 1950), pp. 15 ff.; *Prehistoric Migrations in Europe* (Oslo, 1950), pp. 58 ff.

³ See, e.g. Li Chi, *The Beginnings of Chinese Civilization* (Seattle, 1957), esp. pp. 26 ff. on western affiliations, on which also see L. Ward, in R. W. Ehrlich, ed., *Relative Chronologies in Old World Archaeology* (Chicago, 1954), pp. 130 ff.; and now W. A. Fairservis, Jr., *The Origins of Oriental Civilisation* (New York, 1959), esp. pp. 102 ff.

The view which is now emerging, therefore, is that the Neolithic, farming-stockraising culture, began somewhere in the Near East, the so-called Bible lands, and spread out from there, westwards to the Mediterranean and Europe, and eastwards to the steppes of Central Asia and China.

The last category of evidence is formed by written records. Early writing existed in each of these five main areas, but in only two of them, Mesopotamia and Egypt, in any important degree in the period before the time of Abraham. Neither the Indus script nor the Minoan Hieroglyphics, which fall within this period, have been deciphered, and the earliest Chinese inscriptions, the oracle bones from Anyang, are not earlier than 1500 B.C.¹

It is not possible here to detail the enormous mass of Mesopotamian and Egyptian written material from the period down to the first quarter of the second millennium. The earliest pictographic inscriptions in Mesopotamia, which on present evidence far outstrip any rivals in claim to antiquity, first appeared in the Uruk Period, well back in the fourth millennium, at least a thousand years before the time of Abraham.² Continuous texts in cuneiform, the developed form of this script, appeared around 3000 B.C., also about the time of the first hieroglyphic texts.³ It will suffice here to mention that among the Sumerian texts of the end of the third millennium, there were Creation Stories, references to a Paradise (called Dilmun), a story of a dispute between a farmer and a herdsman which is somewhat reminiscent of the Story of Cain and Abel, a King List which mentions a Great Flood, and a separate Deluge Legend, all of these probably centuries before the time of Abraham.⁴ The possibility of an earlier common factual

¹ On the Chinese writing see H. G. Creel, *The Birth of China* (London, 1936), pp. 158-173; Li Chi, *Beginnings of Chinese Civilization*, p. 17.

² The earliest at present known come from Level IV of the Eanna ziggurat sounding at Warka. Six hundred and twenty of these were published by A. Falkenstein, *Archaische Texte aus Uruk* (Berlin, 1936).

³ That is the earliest at present known. See E. Edel, *Altägyptische Grammatik* (*Analecta Orientalia*, 34) (Rome, 1955), pp. 2 ff. for an inventory of the earliest inscriptions.

⁴ Popular account of Sumerian literature in S. N. Kramer, *History Begins at Sumer* (London, 1958) (American edn., 1956); full discussion of the King List in T. Jacobsen, *The Sumerian King List* (*Oriental Institute Assyriological Studies*, ii) (Chicago, 1939); flood tablet, A. Poebel, *Historical Texts* (University of Pennsylvania: The University Museum: Publications of the Babylonian Section, vol. iv, No. 1) (Philadelphia, 1914), pp. 9-70; *Historical and Grammatical Texts* (P. B. S., vol. v) (1914), pl. I.

source for these and the Genesis narratives cannot therefore be ruled out.¹

Biblical Evidence

It is necessary now to turn to the other main body of evidence, that derivable from the Biblical text. There is not space here to mention every significant point in these chapters, so only the most outstanding can be dealt with.

The part of Genesis under study is provided with a number of natural divisions, marked by the recurring formula 'these are the generations of . . .', but for the present purpose it will be convenient to override these divisions and instead consider, as units, the groups of narrative which are separated by the two formal genealogies of chapters v and xi. Thus, passing over the first twenty-five verses of chapter i, which belong properly to the province of astronomy and geology, rather than archaeology, the first division comprises the account of Adam and his descendants. Chapter v provides the genealogy from Adam to Noah, and the dividing line to the second main division, chapters vi to xi, which gives the accounts of Noah, the Flood, and the Tower of Babel. The Table of the Nations in chapter x differs from the rest of these chapters, in that such names as have been identified with references in extra-Biblical sources suggest that it is a separate document compiled in the latter part of the second millennium B.C.,² and as this lies outside the defined period of this study, it will be ignored. This second main group of narratives is then followed by the second genealogy, that from Shem to Abraham, which brings the account down to the historical period in the early second millennium.

The first division, chapters i-iv, deals with Adam and his descendants. For Him 'God planted a garden eastward in Eden', the most likely sense being that God planted a garden or 'enclosure' in the eastern part of a place called Eden. It is very likely that the name Eden is to be connected with Sumerian *edin* (e.din.(na).), meaning 'plain' or 'steppe', in which case the garden would perhaps be an arboretum or

¹ Clearly no one person can know at first hand all the material outlined above. It is necessary, however, in my opinion, to take it all into account in any realistic consideration of Genesis, so I have risked the manifold pitfalls. I have tried to give sufficient bibliography to make it possible to check the statements made.

² E.g. D. J. Wiseman, 'Genesis 10: Some Archaeological Considerations', *Trans. Vict. Inst.*, 87 (1955), 14-24, 113-118.

even an oasis in an area of open terrain. A river went out from Eden, or the plain, and watered the garden. The statement in ii. 6 that 'there went up a mist from the earth, and watered the whole face of the ground' may be relevant here, for it has long been suggested that the word ^o*ēd*, usually translated 'mist', may correspond to Sumerian *id*, 'river', with the sense that the river rose to water the garden, in the manner of the annual inundation of the Nile, for instance, thus providing automatic irrigation.¹ The river divided into four heads, *rāšim* presumably referring to the points where each became a separate river. Of these, the Hiddekel and the Perath are safely identified with the Tigris and Euphrates, the Akkadian *Idiqlat* and *Purattu*, and the Sumerian *Idigna* and *Buranum*. The Tigris is further defined as flowing past Aššur, presumably referring to the city, represented today by the mound Qal'at Sharqat on the west bank of the river. The Pishon and Gihon have not been satisfactorily identified, such conjectures as the Indus and Nile being unsubstantiated, but tentative connections with rivers in Armenia and the Caucasus seem as likely as any.

A few indications of the minerals of the area are given in the description of the land of Havilah, round which the Pishon flowed, which is said to be a source of gold, and the *šōham* stone. Though from the word ^o*eben*, it seems probable that a gem stone of some kind is meant, the precise meaning of *šōham* is not known, so speculation is idle. These two minerals are in any case not described as coming from the garden itself.

The garden was well clothed with vegetation, starting with trees of every kind which could be desired for food (ii. 9), probably indicating fruit trees. Also very probably referring to some kind of tree is the *b^edōlah* which is mentioned in connection with Havilah. In the book of Numbers, the manna is likened to *b^edōlah*, and the general description of its appearance supports the view that it may be the *bdellion* or *bdellium* of the classical writers, a transparent resinous gum of pleasant odour, found, according to Pliny, in such places as India, Babylonia, and Arabia.² One other tree, the *š^oēnā*, most probably the fig, is of course mentioned in the account of the fall. The most common species, *Ficus carica*, is today indigenous to Syria and Asia Minor, and was evidently so in the time of Sargon of Akkad, as it is mentioned in the account of his campaign to that area. It may be that the statement in

¹ E. A. Speiser, *Bull. Amer. Schools Oriental Res.*, 140 (1955), 9-11.

² *Naturalis Historia*, xii. 9.

ii. 5 that 'no *šāh*' and 'no *ēšēb* of the field' were yet in existence before the planting of the garden, is intended to imply that these did form part of the vegetation of the garden when it was ready. The word 'field', *šādeh*, which is frequently used elsewhere to refer to arable land, occurs here for the first time, and may indicate that the *šāh* and *ēšēb* were particular types of plant suitable for human use. The general usage of these two words suggests that in the present context they may perhaps be understood as indicating respectively low bushes bearing berries, and the natural grasses from which cereals might be obtained.

As to animals, even if *b^ehēmā* in ii. 20 does not necessarily mean domesticated animals, it seems best to take 'every living thing of the field', *kōl hayyat haššādeh*, in that sense.

Thus the picture the text gives may perhaps be interpreted as indicating an enclosure in a plain somewhere in Hither Asia, with fruit-bearing trees and bushes, and wild cereals, irrigated by periodical inundations from the river flowing through it, and tame animals to maintain the natural balance of nature. Adam was placed in this enclosure, and given the task of dressing and keeping it, the verb *ābad* suggesting sufficiently active labour to keep him in good health, and *šāmar*, the general watching over and caretaking of it. The episode in which the animals are brought to Adam to be named suggests that this overseeing included intelligent organisation of the contents.

All this was changed with the expulsion from the garden, Adam was still to eat the *ēšēb* of the field, but there would be no more automatic irrigation, and God was going so to curse the ground that thorns and thistles would choke the food crops, and Adam would have continuous toil and sweat to gain his food (not necessarily 'bread' (*leḥem*)) from the ground.

All this seems to suggest an agricultural economy, a view supported by the statement that Cain was a tiller of the soil and Abel a keeper of sheep. The mention of Adam and Eve sewing (*tāpar*) leaves together suggests needles, and God teaching them to make *kotnōt* *ōr*, tunics of skins, indicates leather-working tools. Further to this, the possibility of religious installations is suggested by the offerings, *minḥā*, brought to God by Cain and Abel (iv. 3, 4).

The passage in chapter iv telling of Cain's descendants is usually treated as an account of the origins of the arts of civilisation, but an examination of each of the component elements shows that these features could be interpreted as appropriate to almost any period from

the Upper Palaeolithic to the Iron Age. Each point can only be mentioned very briefly here. Enoch's 'city', *‘îr*, need not be more than a small settlement, and could suggest equally a village farming settlement of the Near East, or one of the Upper Palaeolithic mammoth-hunter type, and the lot of Cain as a wanderer would appear to bear this out. Jabal is described as the 'father' or 'originator' of those who dwell in tents and have cattle, but *mîqneh* need not mean more than 'possessions', or even possibly, if the Massoretic vocalisation is ignored, it might be a form of *qāneh*, 'read', with a prefixed *mem* local, and have some such meaning as 'who dwell in tents and places of reeds', that is reed, or wattle huts. This situation could relate to nomads in the hinterland of civilisation, or Upper Palaeolithic hut dwellers. The same could be said for the other four elements. *Kinnôr*, could mean basically, 'a stringed instrument', and the presence, now generally accepted of the archer's bow in the Upper Palaeolithic¹ opens up the possibility of the simple musical bow in that period. Simple wind instruments mostly of hollowed bones, which could come within the meaning of *‘ûgāb*, are known from the same period.² The statement in iv. 22 can legitimately be translated to mean 'the sharpener of every cutter (or cutting implement) of copper and iron'. Since both native copper and meteoric iron have presumably occurred on the surface from Palaeolithic times, and both can be worked by grinding (being softer than stone), it seems unnecessary to regard this as evidence of metallurgy.

Summarising the indications from this section dealing with Adam and his immediate descendants, while most of the features might belong to any period from the Upper Palaeolithic to the Iron Age, two features, agriculture and animal husbandry, would seem to point to a period following the 'Neolithic Revolution' in Western Asia.

At the other end of the genealogy of chapter five, the brief statement in connection with the birth of Noah, which associates 'toil' (*‘îṣṣabôn*), with the word *‘ādāmā*, seems to suggest that agriculture in some form was still practised in the period just before the Flood.

The account of the building of the ark is instructive. The word *tēbā*, ark, is generally thought to derive from an Egyptian word meaning 'chest' or 'box' (*ḏbꜣt*), and is only used once elsewhere in the Old

¹ J. G. D. Clark, *Prehistoric Europe* (London, 1952), pp. 30-33.

² O. Seewald, *Beiträge zur Kenntnis der steinzeitlichen Musikinstrumente Europas* (Vienna, 1934), pp. 22-42.

Testament, to describe the ark of bulrushes in which Moses was set.¹ This implies that it need not be a plank-built craft. The identity of gopher wood is uncertain, the most common suggestion being cypress, or something of the sort, but the use of the word *ʿēṣ* with it suggests that it was a tree, and not merely a bush.

It seems reasonable to adopt Dr Ullendorff's suggestion that the pointing of *qinnim* (vi. 14), usually taken as the unique plural of *qēn*, 'nest', and translated 'rooms', be altered to *qānīm*, the plural of *qāneh*, 'reed', and render the phrase 'of reeds', rather than 'with rooms thou shalt make the ark'.²

The word *kōper* only occurs in this one place in the Bible, and is usually translated 'pitch', a product in antiquity of the distillation of wood tar, but the Akkadian cognate *kupru* was sometimes used of bitumen, a natural derivative of crude petroleum, so it seems that 'bitumen' would be a better rendering here.³ Bitumen of course occurs naturally in Mesopotamia, and also, it is perhaps worth noting, north of the Caucasus in the Aralo-Caspian basin.

The phrase 'with lower, second, and third stories shalt thou make it', if taken literally means 'thou shalt make it lower second and third' (*taḥtiyyim šeniyyim ūšelišim tašehā*, vi. 16), the noun 'stories' being supplied in most translations. While this is a possible interpretation, it may be suggested that the phrase 'lower, second and third' could be taken as referring to three thicknesses in the construction of the sides. *Petaḥ*, usually translated 'door', need not mean more than 'opening'. The meaning of *šōhar* is uncertain, some taking it as 'roof', but the most common conjecture sees it as an opening for light running right round the vessel just below the roof. This is however a guess at best.

Taking now these indications together, it might be possible to see the building of the ark on something of the following lines. A number of logs, or even tree trunks (*ʿāṣē-gōper*), might have been bound together, in three layers (v. 16) and caulked with 'reeds' (*qānīm*), and the whole waterproofed and finished off with bitumen (*kōper*). If the cubit is taken in its usual sense of the length of the forearm, the dimensions of the craft would have been approximately 450 × 75 × 45 feet, that is long and narrow, and though such a construction would involve a

¹ E.g. Koehler-Baumgartner, *Lexicon in Veteris Testamenti Libros*, p. 117; and Supplement, p. 192.

² *Vetus Testamentum* 4 (1954), 95-96.

³ E. R. J. Forbes, *Bitumen and Petroleum in Antiquity* (Leiden, 1936), p. 70.

lot of labour, it seems well within the bounds of possibility. Given an area with the right raw materials, it would not require a very elaborate kit of tools, and might even have been possible with an Upper Palaeolithic equipment.

It is not possible here to enter on the question of the extent of the Flood, beyond mentioning the possibility of reading ^o*ereš* with a more restricted meaning than 'earth', and accommodating other statements to this meaning, so that all that would be necessary for the interests of the passage would be that mankind should be destroyed according to his distribution at the time. This is only a possibility, and does not rule out the other possible interpretation, that the Flood covered the whole earth.

On the other side of the Flood, there are a number of points to note. First of all the ark landed on one of the mountains of, or perhaps better, in the hill-country of Ararat, or Ura^rtu, a kingdom of late second, and early first millennium date, centering on the neighbourhood of Lake Van in Armenia. On present evidence therefore this seems to point to a landing place somewhere in the hills of Kurdistan.

The other points must be passed over more rapidly. The mention of a 'place of sacrifice', *mizbe^aḥ*, and burnt offerings (^o*šlōt*) (viii. 20) requires no comment. The pre-Flood indications that Noah was an agriculturalist are borne out by the reference to seedtime and harvest in viii. 22, and the still clearer references to him as a husbandman ^o*š hā dāmá*, and the planter of a vineyard in chapter ix. The fact that grapes have in themselves all the necessary ingredients for fermentation shows that no elaborate equipment is implied. The mention of a garment or mantle, *šimlā*, may suggest the presence of weaving, which together with the other elements points to settled agriculture. So ^o*šhel* may have more the sense of 'dwelling' than 'tent', though probably in the early stages of agriculture periodical moves were necessary as the neighbouring arable land became exhausted.

Thus the general outline of material culture of the time of Noah as derived from these references would seem to suggest a period following the Neolithic Revolution, and it is interesting to note that the most likely area is somewhere in the uplands of Western Asia.

Passing over the Table of the Nations, the Tower of Babel episode, which evidently relates to a time after some unspecified interval had elapsed, must be dealt with very briefly. It is of course possible to take the word ^o*ereš* again in a limited sense, and render verse one, 'the whole land was one lip and one word', and even if this is not the sense, the

third plural 'they' in verse two need only refer to a section of the inhabitants of the earth. The presence of an *ayin* in the name Shinar seems to preclude a direct equation with Šumer, the southern part of Babylonia, and in view of the information in chapter x, the name seems to refer to the whole of the Babylonian plain, including both ancient Sumer and Akkad. The location in this area is supported by the reference to burnt brick and *hēmār*, which is probably the native Hebrew word for the foreign *kōper*, 'bitumen'. It is tempting to connect the city and the Tower with the common Mesopotamian arrangement of a city with its ziqqurat, but the word *ir* gives no information as to its size, and the word *miḡdāl* has more the sense of 'watchtower', than of anything so specifically religious as ziqqurat (the phrase 'its top in the heavens' not necessarily having any religious significance). These terms, and the absence of any reference to writing, show the possibility of an extremely early date.

Conclusions

What conclusions may now be drawn from these two ranges of evidence?

Genesis seems to indicate that Adam, the first man, was a farmer, and the present state of archaeology seems to point to an origin of agriculture in the Near East, some time after the close of the Pleistocene Ice Age. Should Adam then be placed on what Braidwood calls the 'hilly flanks of the fertile crescent', his descendants dividing, the agriculturalists to move down eventually into the Mesopotamian plain, and the nomads mainly to the north, to the steppes of Asia? There would be ample time to allow for the rest of the events described in the early chapters of Genesis, and the view of Green and Warfield that the genealogies could cover any length of time, being non-consecutive, could be adopted.¹ The Flood would be a bad river inundation in the alluvial plain, such as that discovered by Woolley at Ur, and the Tower of Babel story would fit in shortly before the appearance of writing, the principals in that episode perhaps being the Sumerians.

There are, however, certain rather serious objections to such a view. In the first place, the remains of the Palaeolithic, including the fossil remains of men of modern type, and the remarkable cultural remains,

¹ *Bibliotheca Sacra* (1890), pp. 285-303; *Princeton Theological Review*, 9 (1911), 1-17.

not only in the painted caves of Europe, but also the quite elaborate equipment as revealed for instance in the mammoth hunter camps of Moravia, would be left completely out of account. On present evidence, the dating of these remains is sufficiently sure to rule out the possibility that they were later than the Near Eastern farming remains. Another difficulty with this view, though not perhaps so great, is the fact that a flood coming so relatively late in the prehistoric period would not have destroyed all men on the earth, let alone have risen sufficiently high to leave an ark on the Kurdish hills.

The main difficulty of this view, that of ignoring the Palaeolithic remains would be met by saying that Adam must have appeared at the beginning of the Palaeolithic, possibly being in existence at the close of the Pliocene, and that all the remains from the Palaeolithic are to be attributed to Biblical 'man'. The fossil remains of types different from modern *Homo sapiens* could all be 'men' in this sense, for on the basis of bone morphology alone it is not possible to decide what constitutes 'man' and what does not. The Neandertalers could be equated with the Nephilim, and the Flood could be connected with one of the great changes of sea level during, or at the end of, the Pleistocene. Noah and his descendants would then be the Neolithic farmers of Hither Asia, spreading out from the area where the ark landed in the uplands of the fertile crescent. The Tower of Babel story would be early, and might represent the first descent from the uplands into the alluvial plain, the event taking place possibly, but not necessarily, at the original site of later Babylon, whose earliest levels may lie, according to the theory of Lees and Falcon, well below the present water table.

The objections to this view are also considerable. It would be a tremendous stretch, even following the non-consecutive interpretation of the genealogies, to let the one in chapter v go right back to the beginning of the Pleistocene, a time which on a conservative estimate may have been hundreds of thousands, and according to the solar radiation theory, some 600,000 years ago. Further, though there is evidence of great changes in sea level during the Pleistocene, the distribution of Palaeolithic implements is so vast, covering, as far as present evidence seems to go, the whole unglaciated part of the Eur-Afrasian land mass, that a flood would have to be assumed far beyond any evidence that exists, even to destroy mankind.

A final difficulty from the Biblical evidence comes in the statement that Adam and his descendants were farmers, which would require, on

this scheme, the presence of agriculture at the beginning of the Palaeolithic, a thing for which there is no evidence.

Some of the difficulties of this second view might be met if it were assumed that only the fossil remains which have been unequivocally described as *Homo sapiens* (namely the men of the Upper Palaeolithic) were to be called 'man' in the Biblical sense. This has certain points to commend it, in that it appears that these men arrived in Europe from the east,¹ and while there is no agreement as to their precise area of origin, it would not seem to be so far from the possible area of Eden. Also in this period, the remains such as the cave paintings suggest a standard of mind on a different level altogether from the earlier periods. While the genealogies would still be considered as non-consecutive, they would not have to span such an unconscionably long period. It would be necessary to connect the Flood and subsequent episodes with the same events as on the previous view, but with only Upper Palaeolithic man to be disposed of, if this view of the Flood is taken, it would not need to be of such wide extent.

There are still, of course, difficulties with this view, not least of which is the lack of specific evidence for a Flood of anything like the size it would require. The question of Adam being a farmer would still interfere, as there is no evidence for agriculture in the Upper Palaeolithic. The question also arises as to how the tool-making creatures of the periods before the Upper Palaeolithic should be regarded. The current anthropological view is that man is a tool-making animal, and that therefore where fossil forms are discovered in association with implements they are to be regarded by definition as true 'men'. It does not seem necessary on the Biblical evidence to follow this view, however, since there the difference between man and the animals is placed on a far less tangible level, and the studies of Yerkes and Kohler show that chimpanzees, for instance, exhibit what are evidently rudimentary tool-making propensities.² It is possible, therefore, though this is of course speculation, that the fossil forms of non-sapiens type represent extinct groups of ape-like primates, which made use, to a greater extent than the surviving great apes, of quite efficient implements. These would not be pre-Adamite men, for they would not be men.

¹ This is, of course, no more than a vague hypothesis, see D. A. E. Garrod, *J. World History*, I (1953), 13-38, where this view is not supported.

² *Antiquity*, 22 (1948), 210-211.

A fourth view, and one which is perhaps the most widely held today, is that these early chapters are not intended to narrate historical events at all, but are what might be called 'poetic media for the conveyance of divine truth'. In Paul's important statement about the Scriptures in his Second Epistle to Timothy, he does not claim that they are profitable for historical research, and this view would hold that these chapters convey truth about God in the form of picture language. If this view is adopted, all the difficulties discussed above are resolved, and in fact it becomes possible to regard the whole enquiry, indulged in up to now, as futile and misconceived.

This view, however, is not without its difficulties. In the first place, apart perhaps from chapter i, there is no clear indication that these chapters are couched in other than plain narrative prose, and apart from the serpent, there is nothing in them which is intrinsically fabulous. If they are then called 'prose poetry', they can only be so named on grounds which lie outside any objective criteria in the text. But perhaps the most serious difficulty is to be found in the attitude of the New Testament. An examination of the references to the stories in these first eleven chapters, by such writers as Paul,¹ Peter, and John certainly leaves the impression that to them they were historical narratives. But the most important statements must always be those of our Lord. To mention only the most outstanding: in Matthew xxiii He speaks of Abel in the same category as Zacharias, a historical character spoken of in Chronicles; and in Luke xvii He speaks of Noah and the Flood as in the same sphere of reality as the second coming. It seems likely that if He spoke in such terms of these isolated individuals and incidents, His remarks would refer also to the wider context, and in fact to the whole of these early narratives. It is therefore difficult to escape the conclusion that to our Lord these early narratives described actual events.

It may be, of course, that it is merely a peculiarity of the modern Western outlook to see only two categories, that of literal history, and that of poetic prose, and on this account it should not be dogmatically asserted that these chapters must be one or the other, but this view again would exclude the possibility of any but a subjective decision in the present situation.

Thus it appears that in the present state of knowledge, firm conclusions on the questions raised above are not possible. But while

¹ See, e.g. the argument in Romans v and I Corinthians xv.

there are no striking harmonisations between the two bodies of evidence, the very fact that it was feasible just now to consider certain possible general correlations seems significant. So while it cannot be maintained that the early chapters of Genesis definitely relate historical events, it equally cannot be asserted either that they could not, or do not.

These seem to me to be some of the problems to be faced in the study of this subject. Though, as has been pointed out, there can be no solution at present, it may be helpful for me to put forward my own tentative *opinion* on these matters, which could act as a theory to be examined and criticised.

The teaching of Genesis i-xi on any interpretation is of declension from an original state of communion with God, and all the accompaniments of that, so it seems false always to view the archaeological remains in the light of an evolutionary hypothesis. It might be therefore that technically advanced cultures, including such things as agriculture, were in existence at times much earlier than we have supposed.

To me, more difficulties arise from a view which would deny a historical status to these narratives, than advantages gained. The view, therefore, of connecting Adam with Upper Palaeolithic man is the one which I would tentatively adopt, and support with the consideration that the evidence is still too meagre to make the absence of traces of agriculture at that time, and of a great Flood towards the end of the Pleistocene, conclusive against it.

Finally, to touch briefly on the question of transmission, not hitherto mentioned, the scope of Sumerian literature at the beginning of the second millennium shows the possibility, to put it no higher, that the main contents of those chapters of Genesis which relate to the pre-Patriarchal period could have been known to Abraham before he accompanied his father Terah on his journey out of Mesopotamia.

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Langhorne Orchard Prize Essay—1958

CAN AN HISTORIC FAITH CONVEY FINAL TRUTH?

Argument

Thought on the universe and God is either monistic, i.e. everything is included in one all-embracing universe, or dualistic, i.e. God is outside the universe and uncontrolled by it. The latter view is maintained by the historic faiths, Judaism, Christianity, Islam. They claim there is a Creator, who by intervening in His creation in history has revealed Himself. They claim that thereby they are in possession of final truth, but this claim is confined to the theological realm and is obtained by communion with God rather than by a series of intellectual propositions.

The main objections of mysticism, philosophy and the natural sciences to this claim are examined and it is shown that they are based not on intrinsic weaknesses in the historic faiths but on the preconceived idea of a monistic universe from which they start, from their inner nature and from a misunderstanding of the historic faiths.

Rational human thought about the universe and man's place in it, in spite of its incredible diversity, falls into one or other of two systems, which are mutually incompatible. One is by its nature monistic, the other dualistic.

The former may be animistic, polytheistic, pantheistic or atheistic; it may affirm the duality of matter and spirit, or deny the reality of one or the other. But it maintains that the universe, however great or small it is conceived, is a closed system. If there is anything outside it, it cannot be known from within the universe, nor can it influence it. There may be change and growth within the universe and a goal towards which it moves, but these depend on the laws of the universe's own being.

The latter affirms the existence of a deity outside the universe, antedating it and creating it *ex nihilo*. While the universe is dependent on

Him, He is in no way dependent on it; while He controls it, it can never control Him.

There have been adherents of the latter system, who have been so fascinated by a monistic view of the universe, that they have betrayed the essence of their own dualistic system and stopped here—examples are many of the eighteenth-century deists and of the more philosophically minded modern natural scientists. Where, however, these dualistic systems have remained unadulterated, they affirm that the deity is not merely creator and sustainer of the universe, but that He can intervene and in fact has intervened in His creation and, intervening, has changed it.

These are the affirmations in particular of the three great historic faiths: Judaism, Christianity and Islam. They claim that God, the creator and sustainer, has intervened in human affairs in identifiable historical circumstances and in such a way as to reveal His character and will and profoundly to modify all subsequent history. Let us be clear; it is far more than a claim that God has revealed Himself to historically identifiable individuals. Zoroastrianism claims that Ahura-mazda did so reveal himself to Zarathustra about 660 B.C. But for all that Zoroastrianism, in spite of many peculiar traits, is a religion of the closed universe.

Judaism affirms that it was the direct intervention of God that brought Israel out of Egypt and gave him the land of Canaan, and that it was a similar intervention that made Cyrus ruler over the empire of Babylon, that Israel might return from captivity. Christianity affirms that the same God, in addition, in His Son took to Himself human nature and:

Was born of the Virgin Mary;
Suffered under Pontius Pilate;
Was crucified, dead, and buried;
Decended into hades;
The third day He rose again from the dead;
He ascended into heaven;

to quote from the ancient baptismal creed of the West, popularly known as the Apostles' Creed. Islam affirms the historic facts of Judaism and Christianity, though bringing its own interpretation of them, and sees in the Hijra and its successful outcome, a divine intervention as real as the earlier ones it enshrines in the Quran. Though all these three religions have revelations they claim as divine, viz. the Torah of Moses and the words of the Prophets, the teaching of Jesus and His Apostles,

and the revelation to Muhammad in the Quran, they all maintain that these revelations cannot be adequately understood apart from the circumstances in which they were given. In other words, the revelation of God came by His intervention from outside the universe, an intervention which produced results which could never have been brought about by the inherent laws of cause and effect of the universe.

In what follows, Islam will seldom be mentioned. This is not because of any views as to its truth, but because of its historical development, which was largely latent in its beginnings. The details of Muhammad's career have far more an evidential than a revelational value. By the much narrower scope of the Quran Islam has left ample scope for the living on of older animistic beliefs, and its conception of God has been profoundly influenced by monistic mystic theory from India. In addition to this, however, since Christianity makes far greater claims for the extent of God's intervention in history than do Judaism or Islam, it will be convenient for the most part to use it as the historic faith *par excellence*.

The older forms of nature religion, whether animistic or polytheistic, have not been able to withstand the impact of the historic faiths. They have either vanished completely, though leaving plentiful traces in popular superstition, or are in process of rapid disintegration. It would burst the framework of this essay to consider the parallel impact of Western materialism, or how social structure, as with the caste system in India, or public policy, as with State-Shinto in Japan, can retard the disintegration of these religions.

Where the older polytheisms have been able to survive with a vigorous life, it has been through a process that brought them nearer certain vital elements in Christianity and even possibly involved an unconscious borrowing from Christianity. The best examples are the Bhakti Marga (Way of Devotion) in Hinduism, centred mainly on the worship of Vishnu with its avatars ('descents', i.e. semi-incarnations) and the Bodhisattvas and other saviours of Mahayana Buddhism. Such systems would always be willing to come to terms with the historic faiths and to find a place for their founders in their pantheon. They are less concerned with their claim to truth; it is their claim to absoluteness which offends.

It is quite otherwise, when we come to the philosophical systems, whether predominantly religious or intellectual, that are based on a monistic view of the universe. They are prepared to regard the historic faiths as a pragmatic expression of truth far inferior to their own, only

if their dogmas are severely censored and their historic revelations submitted to mystic or rationalistic interpretations.

Before we examine why they so flatly deny that a historic faith can convey ultimate truth, it will be well to consider what claims these faiths do actually make for themselves. In each case they are concerned primarily with God, and then with man, not so much as part of the universe, but rather as differentiated from the rest of the universe by the express act of God, i.e. in that he was created in the image and likeness of God—irrespective of how this may be explained. It is true that all have held theories of inspiration which have led them to believe that they had been given absolute revelation, also in what is now considered the realm of the natural sciences. There are very few orthodox Christians or Jews who believe this today, for they recognise that this conviction was based not on their Scriptures, but on an illegitimate understanding of their purpose. Even where man is concerned, it is recognised that the Scriptural picture of him is descriptive and need not be, though it often is, in conflict with the claims of the modern physiologist and psychologist, though it is very doubtful whether the latter have been able to prove their correctness in any case of dispute.

The claims for ultimate truth are bounded not only on the side of the creation, but also on that of the Creator. It is clearly realised that this truth is always knowledge in a human, in a creaturely context. Judaism has always stressed verses like Psalms cxv. 16, 'The heavens are the heavens of the Lord; but the earth hath He given to the children of men', as meaning that God has revealed Himself primarily in the context of His creation. What He is in Himself is not man's business and perforce remains hidden from man. Though under the influence of philosophical thought and in reaction to a misunderstood Christian Trinitarian doctrine, Judaism increasingly stressed that God's unity and nature could not be expressed positively in human terms, the reality of the revelational knowledge of God was never denied, and it is questionable whether Judaism would ever have queried Vriezen's words: 'The Old Testament speaks about knowing God . . . and makes it the first demand of life. . . . This knowledge of God is essentially a communion with God. . . . It is something altogether different from intellectual knowledge; it is a knowledge of the heart and demands man's love; its vital demand is walking humbly in the ways of the Lord; it is the recognition of God as God, total surrender to God as the Lord' (*An Outline of Old Testament Theology*, p. 128).

In spite of the rash language of some of our theologians, the Christian position, when it is based on the Scriptures and not on philosophy, is essentially the same. When Jesus said, 'I am the way, and the truth, and the life: no one cometh unto the Father, but by me' (John xiv. 6), He was affirming that the ultimate knowledge of God was not based on some system of teaching or philosophy but was inextricably bound up with His life and person. It is obvious that a great deal of Christian theology is apparently oblivious of this fact, and is scarcely distinguishable from philosophy. This is an old disease of Christianity, which has afflicted the other historic faiths as well. Emil Brunner has said very well: 'Very early in the history of the Church . . . the idea arose under the influence of Greek philosophy that the divine revelation of the Bible had to do with the communication of those doctrinal truths which were inaccessible by themselves to human reason; and correspondingly that faith consisted in holding these supernaturally revealed doctrines for truth' (*The Divine-Human Encounter*, p. 12).

Both faiths would agree, then, that the ultimate truth which they proclaim and to the attainment of which they point the way is of limited range in the totality of truth. To quote Brunner again: 'The Biblical revelation in the Old and New Testaments deals with the relation of God to men and of men to God. It contains no doctrine of God as He is in Himself (*Gott-an-sich*), none of man as he is in himself (*Menschen-an-sich*). It always speaks of God as the God who approaches man and of man as the man who comes from God' (*ibid* p. 31). It will, however, surely be agreed by all, that *if we first accept the fundamental postulates of these faiths as true*, then the truths they proclaim are of such primacy as to put all others into the second rank at best.

Christianity has never troubled to deny that its claim to ultimate truth has for the here-and-now to be understood in a somewhat relative sense. It has always claimed that in the hereafter we shall penetrate more deeply into that truth, and it has never doubted that the saints of the future, here on earth, may understand it better than did the saints of the past. But it has always vehemently affirmed that it is and always will be the same truth. The master of Einsteinian four-dimensional physics habitually uses Newtonian three-dimensional principles for his normal everyday life. His self-justification is not that Einstein merely expanded Newton for use in a much greater sphere, but that the much greater simplicity involved in Newtonian calculations far outweighs practically the minute error involved in their use on the petty scale offered by earth. In other words Newtonian physics are not the truth, but a suffi-

ciently close approximation to it for ordinary use. Christianity claims that it is concerned not with a near approximation to truth but with truth itself, or rather Himself. Since it is dealing with a personal relationship, it is capable of infinite expansion without change of nature.

All systems based on a monistic, closed universe are bound to reject orthodox Christianity out of hand. This is something far deeper than the centuries-old debate between idealistic and realistic philosophy, or between monistic and dualistic views of nature. If any 'God' emerged in the discussion, he was in some way part of, or linked to, the phenomena being considered. In Sir A. Eddington's famous Gifford Lectures, *The Nature of the Physical World*, he comes to the conclusion, though somewhat hesitantly, that 'the stuff of the world is mind-stuff', but while he can speak of science justifying the view of the possibility of a universal Mind, he can only in mysticism see a way to a surer reality. But mysticism is as world-bound as every other human activity.

Man left to himself will naturally and automatically consider the universe to be a closed system. Animistic and polytheistic man alike, as all mythology bears witness, saw all nature bound into one. Magic, with its compelling power over beings intrinsically more powerful than man, is a standing testimony to this. Vedic religion began to lose power, when men grasped that the gods were as much subject to the law of karma as men and animals. Something of the same realisation is seen in the Fates of the Greek mythology and the Norns of Scandinavian. The Hindu mystic speculation that sought to escape the inexorable law of karma could bring no Saviour in from outside to help; it could only seek refuge from the imperfections of individuality in the perfection of the undifferentiated reality that lay behind all phenomena—the Vishnaic *bhakti marga* mentioned earlier was merely a second best for those who had not the opportunity or the aptitude for the *jnana marga*, the way of knowledge.

The Old Testament is very largely the tragic story of how Israel strove to bring Yahweh into their world system instead of accepting Him as Redeemer from outside it. The tragedy of the Pharisees was not very different. Though they unreservedly accepted the divine transcendence, they believed that once God had given Israel His Torah, i.e. the Law of Moses, He had in some way committed Himself to human control.¹

¹ See Ellison, 'Jesus and the Pharisees', *Trans. Vict. Inst.*, 85, pp. 35-36.

All too much of Church History shows the same tendencies at work. Most of the abuses that made the Reformation unavoidable were in their underlying motivation of the same type as those that drew down the condemnations of the Old Testament prophets.

It could hardly be otherwise, then, that man-centred philosophy, and science, since the Renaissance, should equate truth and knowledge with what man could by his own efforts discover. Religion was the fruit of man's stretching out to find God, if, indeed, He existed, and it was therefore, for those who were so-minded, the highest activity of man. But with most, there was no comprehension for a God, unknown because unknowable, unfound because unfindable, who broke into man's universe and so revealed Himself and made Himself known.

If mysticism, with its pantheistic systems, and modern philosophy and science reject the claim of the historic faiths to the possession of ultimate truth out of hand, it is in the first place because the claim is for them a folly, because it is a denial of one of their fundamental assumptions. No dialogue between the two sides is possible unless both start off with the recognition that they are both based on mutually incompatible assumptions, neither of which is capable of scientific proof. The monistic view is based on the truism that man cannot by any physical means or powers of his own, leave the space-time continuum in which he finds himself. The dualistic view points to Nature with its indications of a power and wisdom greater than anything in Nature, to the history of Israel, which refuses to conform to any known pattern of history, and to the life, death and resurrection of Jesus Christ, which introduce factors and produce results outside the experience and explanations of the scientist.

Whatever the result for these monistic systems, should they grant the validity of a dualistic system, it is illegitimate for them to rule it out *a priori*. If it can establish its credentials, they will have to recognise that they have been based on too narrow a theory of reality.

Apart from this *a priori* rejection already discussed, there are specific objections raised, the nature of which will depend on the system making them.

Mysticism bases its claim to ultimate truth both on the self-authenticating nature of its experiences, and, particularly in our modern sceptical age, on the striking similarity of phenomena in widely differing circumstances and systems. In all cases we are dealing with experiences and knowledge which defy adequate expression in words or in any artistic medium. The mystic experience has been described

by S. Radhakrishnan as 'pure intuitional consciousness, where there is no knowledge of objects internal or external' (*The Philosophy of the Upanishads*, p. 36). Those who have reached it can teach others the mystic way, but they cannot impart the knowledge they gained by it. Not even two who have reached it can really compare their experiences adequately.

Mysticism claims, therefore, that since the truth of Christianity can be imparted to all and that adequately through words, it must be on a lower level than mysticism. Indeed it claims that Christianity only reaches its peak in the experiences of its mystics. The truth of the claims that mysticism makes for itself hardly concerns us here, for one does not necessarily prove the validity of one claim by disproving the validity of another. It is worth noting, however, that Aldous Huxley's experiments with mescaline, as recorded in his *The Doors of Perception* and *Heaven and Hell*, go a long way to explaining the similarity of mystic experiences. If indeed they are the 'antipodes', to use Huxley's word, of the mystic's consciousness, the fundamental similarity of human personality should produce a general similarity in its 'antipodes'. Be that as it may; if the taking of an apparently harmless drug can produce an experience which under different circumstances would be regarded as a typically mystic one, it strongly supports the contention that the mystic remains within his closed universe; something which the pantheist would not be concerned to deny.

Even if the Christian rejects the claims that mysticism makes for itself, he must be prepared to answer the objections of the mystic. In the first place, as was made clear earlier, the theological formulation of the Biblical revelation of God is not in itself Christian truth. It can be a reasonably accurate and adequate indication of the scope of Christian truth, but it suffers from two unavoidable weaknesses. The lesser is that in its formulation of the Biblical revelation it is bound both to leave out and to add (the fully formulated doctrine of the Trinity is an example of the latter) and thereby it cannot avoid shifting the emphasis of the original revelation and normally over-simplifying it. The greater is that in theology God is in the third person; He is being spoken about. In the revelation of the Word He is in the first person, for He is speaking. Christian truth is based not on an I-He exposition, but on an I-Thou relationship. So Christian truth cannot be imparted effectively, as the mystic is apt to claim, merely as a series of intellectual propositions. To be effective it must be linked with a knowledge of God and not remain a knowledge about God.

The fact that this personal knowledge of God is capable of finding clearer expression than the mystic experience—it must not be forgotten that its best expression is normally in the greater hymns, not in manuals of theology—comes from its standing higher and not lower than mysticism. The reason for this is not far to seek. An illegitimate extension of mysticism to cover all forms of conscious communion with God, real or merely imaginary, has hidden the fact that in true mysticism the mystic is seeking to be lost in the Brahma or God, intuitively to grasp the identity of Brahma and the atman, of God and the soul. In Judaism and Christianity, however, man has been created 'in the image and likeness of God', *capax Dei*, capable of hearing God's voice and of responding to Him. However near their fellowship with God may approach the mystic model, the soul retains its full consciousness and its realisation of the difference between it and God. For that reason it can much more easily give a rational, even if inadequate, account of that fellowship than can mysticism of its experiences.

Closely allied to this is an objection which mysticism shares with most modern systems, its dislike of Christian stress on individuality, on particularity. For Upanishadic speculation the existence of the individual is mere *maya* (illusion) and the end of the chain of karma comes when the mystic knowledge of this is achieved. Equally in Buddhism the Four Noble Truths and the Holy Eightfold Path have as their object the removal of the will to live, of the will to express one's own individuality. Equally in modern thought, whether philosophic or scientific, the reality of individual personality is minimised, in spite of many social trends.

There never was a time when the equality of the individual within the community was more stressed, when more effort was made to discover the causes of the disharmonious and unintegrated personality. For all that, one has the feeling that the reality and value of the individual personality are increasingly being lost sight of. The natural sciences, at least on their theoretical side, are dealing largely with abstractions. Sir A. Eddington, in chapter xii of his *The Nature of the Physical World*,¹ gives an amusing example of this, when he reduces a problem concerning an elephant sliding down a hill to pointer readings. The universe seldom, if ever, presents the ideal conditions and perfect purity which underlie so many of the scientists' calculations. One is even doubtful about some of the statistical laws, when extremers

¹ p. 244, Everyman's Library edition.

chance is involved, and how much more, when mind and volition cannot be excluded. The classical example of the army of monkeys strumming on typewriters for an infinity of time to produce all the books in the British Museum would impress me more, if they were electronic robots. Even monkeys develop rhythms, which rule out pure chance. The sliding elephant mentioned above is not merely a mass of two tons, for he is capable of accelerating or retarding his progress, and he probably will. The atomic physicist can tolerate the principle of indeterminacy in the infinitely small, but not in the mass. So the natural scientist prefers to think of man in a predictable mass rather than as a far from predictable individual.

It is much the same in psychology and the social sciences. The behaviour of men in the mass can often be predicted with remarkable accuracy; that of the individual may show such unpredictability that the ordinary man never really accepts a deterministic philosophy, at least for himself and his friends. The psychologist may calculate each factor in a given situation, but all too often in the final answer $2 + 2$ does not equal 4. The psycho-analyst may break down the personality of the individual and lay bare the disharmonies of the component elements, but all too often the deciding element is a personal factor that defies analysis, for repeatedly a man turns out to be more than the sum of his component elements.

This personal element is very well brought out in Spencer Brown's searching analysis of the College Entrance Board examinations in the U.S.A.¹ He says (p. 477): 'A candidate who scores in the 700's is very likely to do well in any college—unless he falls hopelessly in love, or hates his room-mate, or has not enough money, or is insulted by a respected professor, or is bored by all professors, or is neurotically eaten away by a conflict between his family's ambitions and his own. A candidate who scores in the 300's is unlikely to be admitted to most colleges and unlikely to do well in any—unless he is dogged or unusually well balanced or falls in love with an intellectual and kindly girl, or is encouraged by a patient and perceptive professor.'

The philosopher is perforce dealing in abstractions where the element of individual personality vanishes. Personality is a philosophical problem, but the vagaries of individual personalities are there to be discounted or explained away as far as possible. This is equally true of materialist Marxist historical determinism and of the absolute solipsistic

¹ *Commentary*, June 1959.

idealism of Berkeley. In the setting of universal theory the peculiar facets of individual personality are as of little moment as the changing colours on the hillside, while the clouds race over the face of the sun.

Though Christianity goes further in its stress on the individual than the others, all the historic faiths lay their primary stress, on the human side, on the individual. The fundamental apodeictic laws of the Mosaic Torah are all couched in the second person singular, and similarly the laws of Islam are first of all addressed to the individual. All three faiths, while being very conscious of being a worshipping community, yet reveal repeatedly the knowledge that the community is composed of individuals who cannot in the last analysis pass their responsibility on to others.

For the reasons already suggested this is a perpetual stumbling-block to the monistic systems, but the historic faiths need not apologise for it. They must defend themselves, when they are accused, as so often they are, of indifference to the ultimate welfare of society, but in their stress on the individual they may see outstanding proof of their contact with ultimate truth. The monistic systems try to ignore individual personality, and indeed particularism in general, just because they are not big enough to cope with them. Man's grandiose efforts to grasp ultimate reality are made possible only by the elimination of a large section of phenomena from the realm of the significant. The historic faiths maintain that the ultimate truth is a Personality great enough not merely to have willed and created the particular in all its bewildering diversity, but capable of using and developing it for His perfect purpose. It is only in philosophy or in a crude popular belief based on it that the material is finally abolished. In the Christian doctrine of the resurrection of the body is the supreme denial of mysticism and all other monistic systems.

In contradistinction to the mystic, however, the historic faiths have always denied that ultimate truth *in its completeness* is comprehensible by the individual, though it is there in the self-revelation of God in history. Only the religious community, in which one supplements and corrects the other, can make this claim, and it does so at its peril. But since this truth is a Person, individual falling short affects neither its reality nor its accessibility.

Not much attention need be paid to the objection by the natural sciences to the element of finality in the historic faiths. At one time this was in great measure justified because of the illegitimate extension, as we have seen, of the content of the revelation in history to matters

outside its true scope. So long as the historic faiths restrict themselves to the Why? of phenomena, leaving the How? to the natural sciences, the latter, which are not really concerned with the Why? have no ground of objection, if the answer bears the stamp of finality and ultimate truth.

Far more important is the perverted sentimentality introduced into the natural sciences in the hey-day of Darwinian evolution. Natural selection was spoken of so convincingly that Nature was conceived of, almost unconsciously, as having some form of personality and goal. Evolution was ever-onward, ever-upward. There was no limit to the possibilities that lay before the human race. For such an outlook it was obvious that any faith that struck the note of finality must be wrong.

Much has changed since then. The scientist has sobered down and recognises that Nature, even if we personify it, is neutral and non-moral; if it has a goal, for which there is very little evidence within Nature itself, there is nothing to prove that it is for man's good. As for evolution, while it may be a flickering light to illuminate the dark vistas of the distant past, it throws no significant light on the future. There is no evidence that neolithic man did not stand *potentially* as high in the evolutionary scale as modern man. Indeed, if there is evolution, it may as well be downward as upward, if indeed we may use these words in a universe which in itself justifies neither. Once soberer second thoughts have robbed nature of an inherent purpose and goal, science has no *a priori* grounds for objecting to the proclamation by the historic faiths of the One outside Nature, who is its Lord and who has set it its goal. But by its very nature such a proclamation must bear the stamp of finality. It is either the word of the universe's Lord, and therefore final, or it is only one more piece of hopeless humanguesswork.

Though we cannot avoid considering the attitude of the Logical Positivists, it is impossible to deal with it adequately in detail. The reason lies partly in the difficulty of the concepts involved, partly in the general ignorance of a wider public about them; both of these demand a far fuller treatment than the scope of this essay permits.

Logical Positivism maintains that no sentence is really meaningful unless it can be verified by the means open to natural science. If I make such a statement, the one hearing me or reading it is capable of judging it by the same senses or processes used by me, and so it will mean the same to him as it meant to me. All other statements are ultimately value-judgments, which will be understood by each according to his own system of values. Statements based on spiritual, mental and emotional

states and apprehensions can never be adequately conveyed, for the speaker cannot submit spirit, mind and emotions to adequate scientific measurement, which can then be taken up and applied by the hearer. For me to say, 'I love you', or 'He is a good man', involves statements which will be understood to some extent differently by all who hear.

How far Logical Positivism is justified—that there is some truth in it is obvious—and its effects on philosophy do not concern us here. It should be obvious, however, that it threatens to strike at the roots of any faith based on a revelation in history which is no longer open to scientific tests, and indeed to all religion except a completely individualistic mysticism.

We have already seen that no man has the right to claim that he has grasped ultimate truth in its completeness. Logical Positivism tells me what I should already know from experience, that I cannot pass on perfectly what I have grasped. It reminds us that our differences in understanding the Scriptures are due to deeper causes than denominational traditions and the strait-jackets of dogmatic systems. But though the Christian may learn from it to walk somewhat more humbly and to refrain from hasty condemnation of those that do not seem to understand, he need in no way be perturbed about the views of Logical Positivism. The Scriptures are not there that each man should understand them as best he may, that each Church may expound them as it considers most true. They are there that they may point the reader, that the Church through them may point the hearer to the God who has revealed Himself, of which revelation they are a record. That God speaks as He wills through the Holy Spirit to those who hear and read, and when He speaks the word comes with absolute authority, we may disobey and deny, but we cannot really doubt. As Myers wrote in his *Saint Paul*:

Whoso has felt the Spirit of the Highest
 Cannot confound nor doubt Him nor deny:
 Yea with one voice, O world, tho' thou deniest,
 Stand thou on that side, for on this am I.

It must be stressed that this is not the experience of the mystic stretching out to God. It is no magic associated with the Scriptures; it does not lie within the control or authority of the preacher or reader. Prayer may make it more probable, but it cannot command it. Christianity is a fellowship initiated and sustained by God. By it the revelation of which the Scriptures are a record becomes a revelation to us. Because the same God speaks through the same book to all who will hear, and indwells

all who hear and trust by the same Holy Spirit, there is a deeper oneness in understanding than could be produced by any mere theological formulation of the truth. Logical Positivism may have relevance for a mere theology, but it has little of import to say for the living revelation of God through the word.

There remains only to consider the long-standing protest of philosophy that truth, which by its very nature is unchangeable, cannot possibly be revealed by happenings in the relativity of time and space. That the Cross, an incident that can be dated within narrow limits in time, should have significance for eternity is a contradiction in terms. Indeed the very suggestion that the eternal and infinite should become in any true sense incarnate in the framework of time and space is meaningless.

This is merely bringing to a focus objections we have already met. If philosophy is prepared to deal seriously with the concept of God, it can do it only by bringing Him within the universe we know. A God outside our universe and unbound by its laws automatically lies outside the scope of philosophy. Then, too, the truth for philosophy is something which can be expressed in propositional form, but as we have seen earlier, for the historic faiths truth is a Person. A person can never be adequately expressed in a series of propositions; he has to be known to be really understood.

Further, however, the history, law, prophecy, interpretation which fill the Bible are not themselves the revelation, but only bear record of it. Until there is the interpretation of the Holy Spirit there is no revelation. God's mighty acts are the projection into time and space of His character and personality, but they do not make Him part of His creation.

It is not merely philosophy but also faith that stands helpless before the statement that God became incarnate in Jesus Christ, and Judaism and Islam reject it (on mainly philosophical grounds!) as emphatically as philosophy. But this very rejection is based on views of God which bring Him within the framework and laws of the universe, or which lie outside the framework of historic revelation. If we accept the doctrine of the Incarnation, it does not tell us what the 'physical essence' of God is like and what 'laws' it obeys; it does tell us what He is not like, for He is not like the picture drawn by any theory that rules out the Incarnation *ab initio*. It reveals His character but not His being.

The New Testament is, of course, fully aware of the difficulty involved in maintaining that an act in time can have eternal significance.

That is why Paul stresses again and again that our election in Christ was from before the foundation of the world. Indeed in Revelation xiii. 8 Christ is apparently called 'the Lamb that hath been slain from the foundation of the world', though the verse can be otherwise interpreted. The same thought is found in 1 Peter i. 18-20, 'Ye were redeemed . . . with precious blood, as of a lamb without blemish and without spot, even the blood of Christ: who was foreknown indeed before the foundation of the world, but was manifested at the end of the times for your sake'. This is too the reason why Old Testament type and shadow, and its prophecies are constantly recalled in the New. It is true that they have evidential value for those who are moved by such things, but primarily they underline that the whole revelation of God from the first was heading up to the Incarnation and the Crucifixion. Because God is not of this universe, He could not reveal anything 'happening' completely outside the framework of this universe. If He, the Creator, was also to be the Saviour of His creation, then the revelation of it would have to work itself out in our framework of time and space. But that which happened in time and space was the expression of an eternal reality.

No attempt has been made here to prove the truth of the claim made by the historic faiths to possess final truth. By their nature the full import of these faiths can only be discovered by those who are willing to test their claim that they reveal a God who can be known in no other way than as a Person through His own self-revelation in human history. It has been pointed out that in every case where mysticism, philosophy or the natural sciences challenge their claim, it is due to their *a priori* concepts, above all to their refusal to consider the possibility of the existence of a Creator outside and independent of the universe with which they are concerned.

It has not been the purpose of this essay to consider the respective merits and truth of the three historic faiths. It has, however, been impossible to avoid revealing that certain arguments are probably more effective against Judaism and Islam than against Christianity. I consider too, that the message of Christianity carries on the face of it a higher claim to final truth than its sisters. They have been able to escape its force partly thanks to the faults of organised Christendom, which has so often distorted the teaching of the New Testament, partly through the adoption of philosophical principles, which, if pressed to their logical conclusion, would be fatal to those that use them.

CORRESPONDENCE

W.G. Clarke, Esq. (Australia) writes on 'The Concept of Randomness and Progress in Evolution' by G. E. Barnes, Vol. 90, No. 3, pp. 183-204: the author has given a valuable consideration of some important concepts in modern thought. The distinction which he draws between physical and metaphysical randomness is one of basically open texture between different levels of language, and appears to be both valid and useful.

Several additional points may be mentioned in respect of Haldane's objection that 'most lines of descent end in extinction'. If God did use an evolutionary process as a means of creation, it would be necessary at each stage in this process for all the evolving forms to be members of ecological communities. Since, in evolving, forms change their ecological status, there is an apparent need for other animals and plants to form complete communities, i.e. these forms may be considered as being necessary ecological 'scaffolding' for the evolution of the modern fauna and flora. Therefore I maintain that the fact that most lines of descent end in extinction does not count against a belief in a process of creation by evolution, but rather is a necessary part of it.

There is, however, no need to believe that the life in earlier geological ages was not, in itself, part of the good pleasure of God. Neither is it clear, why, say, the Trelobites, which existed from the Cambrian to the Permian Period (over 300 million years) should be regarded as evolutionary failures by a species, that is endangering its own survival in less than a million years, merely because this latter species lives in the Holocene Period. A life of an individual or a species is not necessarily more valuable or significant because it occurs later in time.

Mr Barnes's statement to the effect that God is responsible for human moral failure raises a number of questions of exegesis, theology, ethics and causation, which are perhaps better answered by a theologian and philosopher. However, I must state that this approach to the problem of evil seems to create as many problems as it solves.

I would like to thank Mr Barnes for a thought-provoking paper.

REVIEWS

Patterns of Discovery. By N. R. HANSON. Cambridge University Press, 241 pp.
+ diagrams. 30/-

It is not very easy to give a neat answer to the question of how scientific discoveries are made. 'By induction from carefully collected experimental data' is probably what we were taught at school, but real life is a bit more complex than that. Any research student can tell you the difference between getting results and getting an idea. The simple induction picture is adequate to explain a Linnaeus but not a Darwin. The process of getting the 'big idea' which provides a pattern and coherence for a mass of hitherto incoherent data is called *retroduction* by Professor Hanson. He gives as a prime example Kepler's discovery of his laws of planetary motion. Putting the matter in its crudest form, the result of many years of struggle to find the form of Mars' orbit was to lead Kepler to the point where he saw that it lay between a circle and an oval and so must be an ellipse. The logic is obviously faulty, but the discovery once made is self-authenticating. The reason the great acts of discovery are so hard to analyse is that they are essentially creative acts of genius.

This book does not attempt to give a cut-and-dried answer to anything, but is a rather rambling but often illuminating discussion of various topics related to the making of scientific discoveries. Take facts, for example, a word whose meaning we mostly take for granted. We get many of our facts by visual means, but to Professor Hanson there is more in seeing than meets the eye. This he illustrates by those whimsical drawings that can appear as either birds or antelopes according to how the fancy takes one. The point is, of course, that our interpretation of retinal patterns is always 'theory-loaded'. The same applies to causality, which is surely more than mere invariable succession. If I were a more regular man than I am, my retiring to bed might be always preceded by the winding of my watch, but no one would suppose this to be its cause. Perhaps there is some clue here to an understanding of that mysterious word 'reasonable'.

One of the most important questions is the relation of theories to facts. The essence of the relation is the production of order where previously there was but chaos of unrelated observations. But suppose two equally attractive theories can provide quite different patterns for some set of facts? Professor Hanson discusses this case a little but does not cite what must be its most striking illustration. A great battle was fought in the nineteenth century between those who accepted the Newtonian idea of action-at-a-distance and those who thought that the interaction of disjoint bodies must be conveyed through some sort of intervening field. It appeared to end in triumph for the field theorists when Maxwell's equations for the electromagnetic field became the foundation of electrodynamics. However, quite recently it has been shown that for classical electrodynamics (but not for quantum electrodynamics) exactly similar results can be obtained by an action-at-a-distance formulation.

A classical subject of debate is the status of the laws of science and in particular the question of whether Newton's laws of motion are empirically sound or are just definitions of the concepts 'force', etc. Professor Hanson's

answer is the curious one that both of these possibilities, and all sorts of others, are true because scientists talk about them sometimes as if they took one point of view and then again sometimes as if they took another. This surely won't do. The logical status of these things cannot depend on how muddle-headedly we scientists behave from time to time. The true answer seems to be that they are partly definitions, in that, for example, a state of uniform rectilinear motion is taken as the norm. One could replace this by circular motion at the expense of making one's force systems more complicated to compensate for it. On the other hand they contain at least one important experimental foundation in that acceleration, rather than say velocity, is taken as the basic element. This means that the resulting differential equations are of second order. If they had been of first order a particle at a given point would have had to have a unique velocity. That this is not so, is so basic a part of our experience that we tend to forget that it is written into Newton's laws. Throughout mathematical physics the type of boundary conditions permitted by the relevant differential equations is a most important property of a theory.

Indeed, one of the weaknesses of this book is that it underestimates the importance of mathematics as the language of physical theory. It surely does not matter if elementary particle physics is picturable or not. All that matters is that it is intelligible and consistent. Its expression in mathematics makes it intelligible (though not unfortunately so that all who run may read) and guarantees its consistency. The wave-particle duality is no worry because the formation of quantum field theory fits it like a glove. Even picturability returns in a sense in time. Elementary particle physicists express their intentions in cheerfully anthropomorphic language.

The closing chapters of the book get down to the brass tacks of physics. They are the less interesting than their predecessors and marred by some serious errors of understanding. For example, the discussion on pages 138-140 of uncertainty relations for electrons going through a slit appears to produce an effect independent of Planck's constant! The answer is that the diaphragm does not have to be both thick and thin. It need only be thin and sufficiently opaque. (We are discussing error present due to principle, not poorly constructed apparatus.) The actual uncertainty in the electron's momentum is due to the diffraction of the electron waves by the slit, an intrinsically quantum effect. Again it is not true to say that it is not necessary that 'the collision of a photon with an electron will perturb the electron', but only that without the existence of an unreducible quantum of electromagnetic energy it would not be necessary to suppose that this perturbation might not be made arbitrarily small.

Professor Hanson stresses that the uncertainty relations follow inexorably from the whole quantum formalism. This is certainly true. However, Einstein and Bohr did not waste their time in their celebrated discussions of thought experiments. They wished to see whether this really was the appropriate formalism to adopt.

Despite its faults this is an interesting book. It is repetitious and over-loaded with rhetorical questions (too many of which seem to be of the 'can a tin be called a package?' variety) but it repays the labour of reading it.

J. C. POLKINGHORNE

Mind and Matter. By ERWIN SCHRÖDINGER. Cambridge University Press, 1958. Pp. 104. 13s. 6d. net.

Professor Schrödinger is almost, if not quite, unique among the outstanding physicists of our time in that he brings to the general problems of life and experience the same amount and quality of thought that he has bestowed on the specialised subject that we call physical science. Usually, when a physicist comments on these matters, it is either dogmatically or shamefacedly—in both cases at the shortest possible length—and he succeeds only in showing how inferior his acumen is in this field compared with that in which he has attained distinction. It is otherwise here.

Not that the treatment is, or is intended to be, even approximately final. The book opens up problems rather than solves them, and the suggestions advanced are for the reader to consider, not to accept as proved. This is inevitable, of course, and the merit of the book lies in the fact that the right problems are identified and the suggestions are relevant to them. This is a rare achievement. It is easy to talk vaguely about indefinite generalities, and there is no dearth of such talk. What is aimed at here, and is in large measure achieved, is expressed in the remark: 'My purpose in this discussion is to contribute perhaps to clearing the way for a future assimilation of [these considerations] with our own scientific world view, without having to pay for it by a loss of soberness and logical precision.'

The matters successively brought under discussion are the relation of consciousness to the material world, the chance or directed course of evolution, 'objectivation', i.e. the hypothesis of an external world as a means of interpreting experience, the paradox of 'other minds' which are yet apprehended only by one's unique mind, the significance of time in science and in religion, and the relation of the purely rational physical scheme to the living sensuous qualities from which it arises and on which it ultimately depends for its existence, but of which it is in itself wholly independent.

An adequate review of such a field is clearly impossible. The character of the book can best be conveyed by commenting—of course inadequately—on a few points on which author and reviewer do not quite see eye to eye. Which, if either, is right is a minor point: what is of importance is that the reader of the review shall become a reader of the book, and form his own judgment.

Commenting on the conclusion, often drawn from the 'uncertainty principle', that we cannot obtain knowledge without changing the object known, Professor Schrödinger seeks to avoid the frustrating character of this necessity by abolishing the distinction between subject and object. This seems to me impossible. Certainly we cannot talk without preserving this distinction, for our language necessarily commits us to sentences in which subject, predicate and object are separately identifiable, but I think the necessity goes deeper than this. The object, in science and in any philosophy that aspires to include science, is the sum of our sensations and other experiences. These are 'given' us, and our reasoning minds are the subject which tries to construct a rationally coherent picture that stands in a one-to-one correspondence with them. With those definitions of object and subject there is no interference of one with the other.

Whatever observation we make—say, the reading of a scale in a physical experiment—is an objective experience, and we do not change it by fitting it with other observations into a single scheme. The idea of interference comes in only if we suppose the observation to be the result of an interaction between an objective body and an independent objective beam of light, and then the interference is between these two postulated entities. But the scale reading itself is simply what it is, and we have only ourselves to blame if we voluntarily analyse it in this way. We have made an unfortunate 'objectivation', but that does not mean that we should not objectify (or, rather, acknowledge the necessity of admitting objectivation) at all.

Incidentally, it is not 'knowledge' that can be said to change the thing known; it is the physical process by which we choose to describe the process of obtaining knowledge that changes the hypothetical thing to which we suppose it applied. If I look up a book of reference to discover Professor Schrödinger's date of birth, I obtain knowledge which I do not now possess, but that does not in the least affect his date of birth. On the other hand, if I illuminate a particle in order to observe its position, I change that position no matter whether I obtain any knowledge or not: I might not trouble to let the light enter my eye after it strikes the particle, but its effect on the particle is exactly the same as if I did. 'Knowledge' is wrongly introduced into the description of the uncertainty principle: that principle is something that pertains wholly to the physical world-picture, not at all to the living experiences which prompt us to create that picture but remain themselves the same whether we create it or not.

I wholly agree with Professor Schrödinger in holding, in reference to time, that 'what we in our minds construct ourselves cannot . . . have dictatorial power over our mind . . . the power of annihilating it'. In other words, the fact that things which I talk about have an end in time is not evidence that I who talk about them will similarly end in time. But I think we must draw a distinction here between the time we recognise in physics, which is something we construct, and the time which is inseparable from our living experience. Professor Schrödinger seems to speak only of the former, for he refers to a reversal of the time-sequence as like 'a cinema-film projected in reverse order'. That describes a reversal of the physical time order, but a reversal of the time which we cannot escape would be rather a condition in which we remember the future, see it approach us, and then immediately become unaware of it as soon as it has happened. It is in that kind of 'time' that we must consider the question of 'life after death'. Not that it becomes any simpler—quite the reverse in fact—but we are at least freed from the false simplicity that results from placing the subject in a time order which the subject has created for the accommodation of objects.

Professor Schrödinger indicates two ways of escape from the problem of many minds, namely, their complete independence, as in the monadology of Leibnitz, and their essential unity. He regards these solutions as exhaustive, and chooses the second. I think there is a third—a recognition of the distinction between the subject, 'I', which is always at the present, and the object, 'me', i.e. an entity which has existed in the now inaccessible past of the physical time order and is on exactly the same epistemological footing as the multitudes of

other people. If I and me are identified (which, of course, would be quite conformable with Professor Schrödinger's denial of the distinction between subject and object) then his alternatives are indeed exhaustive, but I think that identification is an error. But it is impossible to elucidate this in a short space.

Enough, I hope, has been said to show the fundamental and stimulating character of this book, which all who care for such matters should read.

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