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The Antiquity of Man

F. HUGH CAPRON

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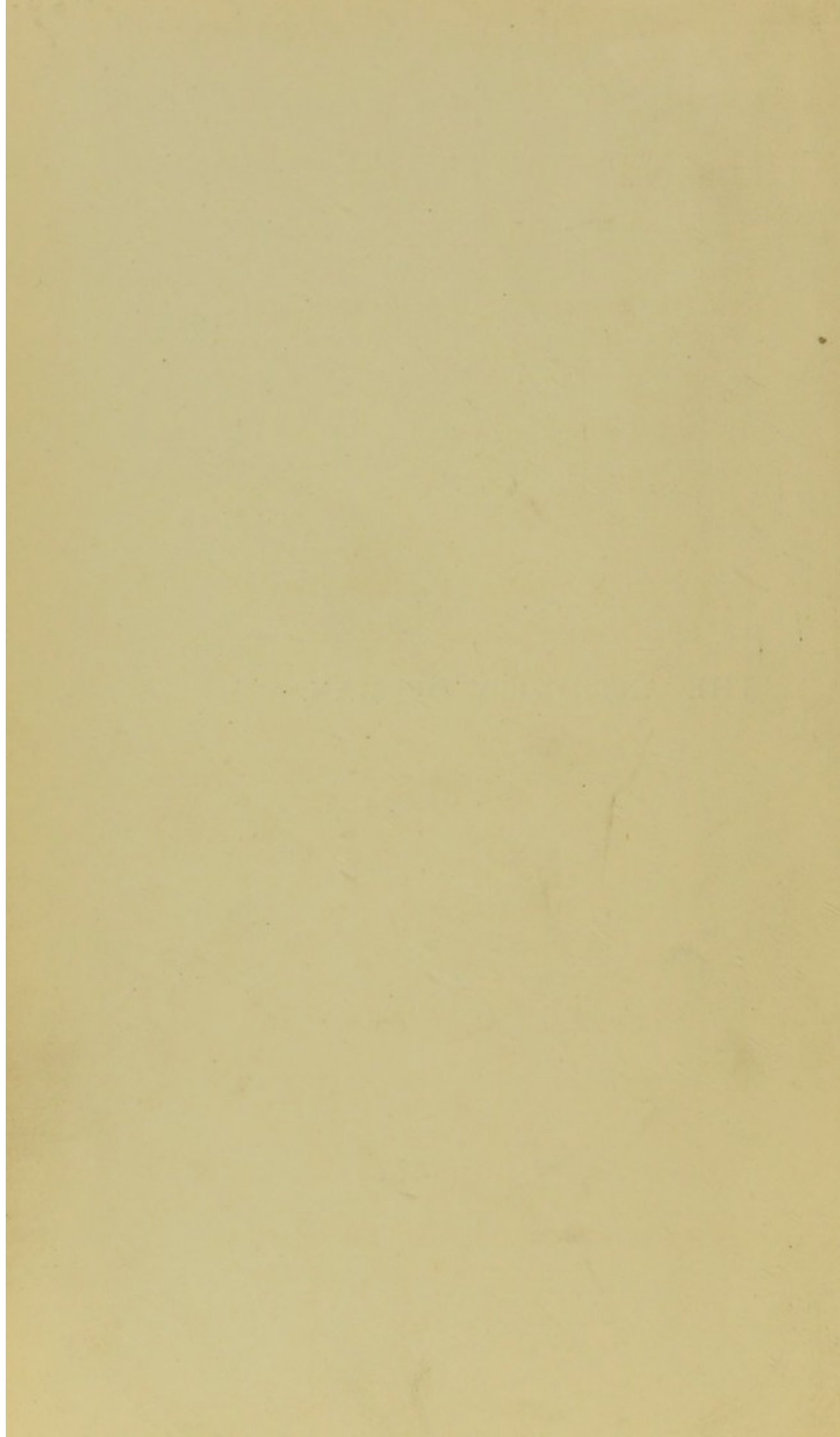
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My Kenneth Barrington
from Aunt C. —
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THE ANTIQUITY OF MAN.



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THE ANTIQUITY OF MAN,

From the Point of View of Religion;

IN ANSWER TO

*MR. S. LAING'S 'MODERN SCIENCE AND
MODERN THOUGHT.'*

BY

F. HUGH CAPRON.

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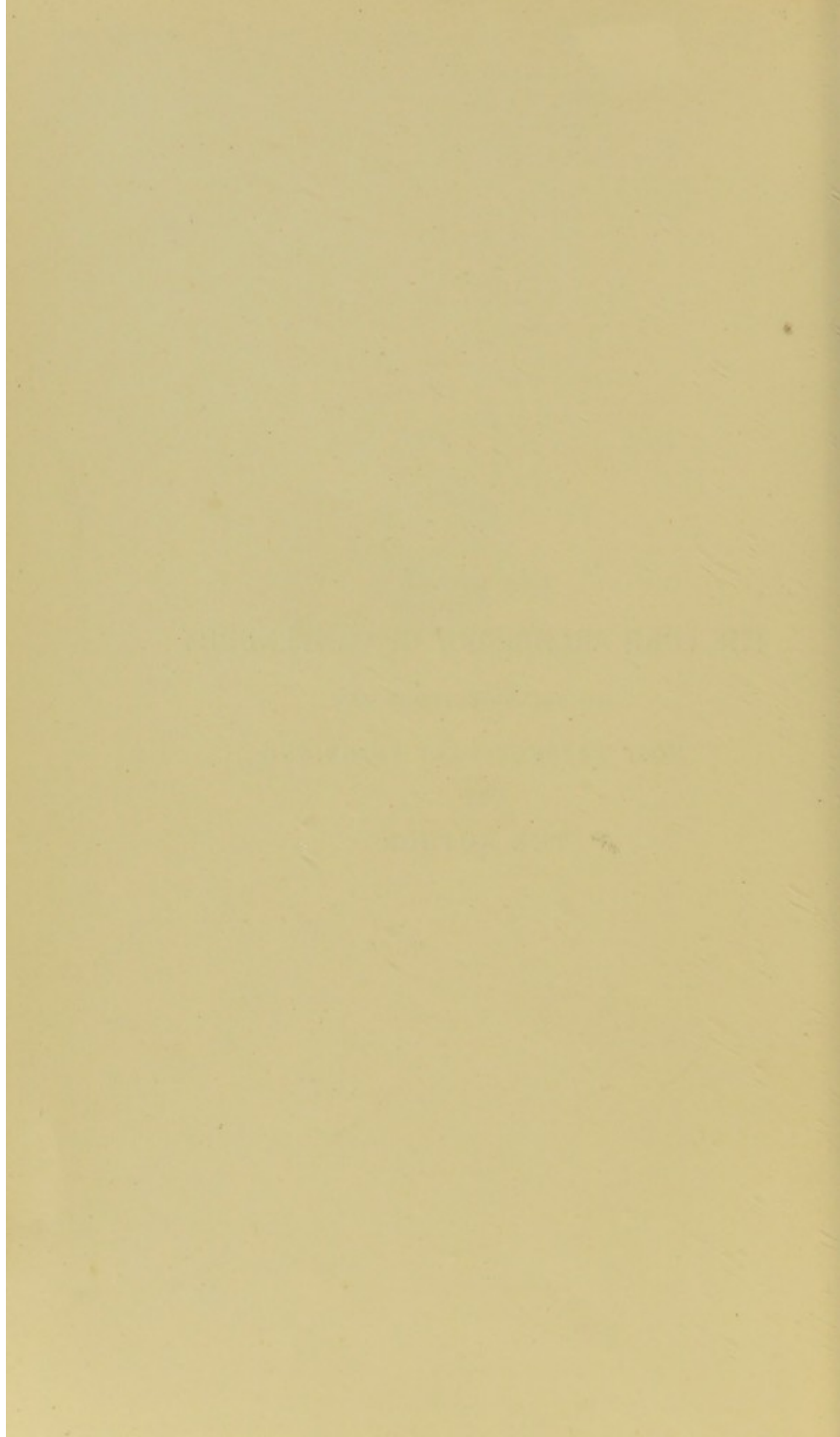
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TO
HIS GRACE
THE LORD ARCHBISHOP OF CANTERBURY

THE FOLLOWING PAGES ARE
MOST RESPECTFULLY INSCRIBED

BY
THE AUTHOR.



CONTENTS.

CHAPTER I.

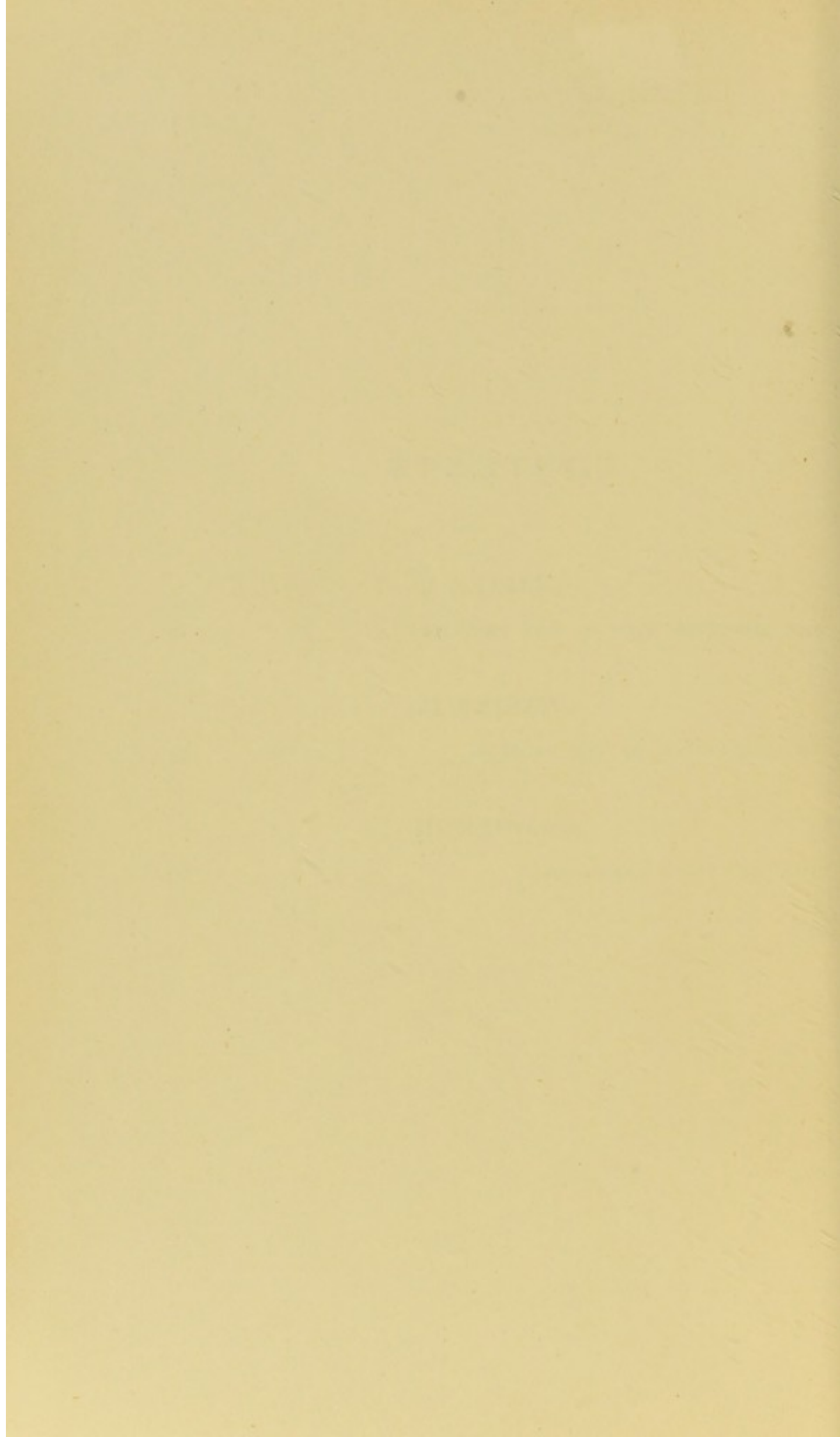
	PAGE
THE SCIENTIFIC VIEW OF THE PROBLEM - - -	3

CHAPTER II.

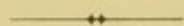
THE BIBLE VIEW OF THE PROBLEM - - -	33
-------------------------------------	----

CHAPTER III.

THE TWO VIEWS RECONCILED - - -	69
--------------------------------	----



THE ANTIQUITY OF MAN



CHAPTER I.

THE SCIENTIFIC VIEW OF THE PROBLEM

‘As regards Adam’s fall, the discovery of Palæolithic man is that which has really given the greatest shock to received theological opinions ; for this discovery, which is an entirely new one of the last half century, though now confirmed by innumerable instances, not only flatly contradicts the narratives of recent descent from Adam and Noah, but it assails in its most vital point the whole dogma of Pauline Christianity.

‘The two statements cannot both be true : one that man has fallen, the other that he has risen ; one that he was created in God’s image, with high moral and religious faculties, and placed in a garden in a state of innocence and happiness, from which he fell by an act of disobedience, entailing a curse on his descendants only partially redeemed by the Atonement ; the other, that he is the product of an evolution, tending ever upwards, over immense geological periods, from savages who chipped their rude flints on the banks of frozen rivers, chased the mammoth and the reindeer on the plains of Southern France, and held their cannibal feasts in caves, excavated by small streams, which ran 100 feet above their present level.

‘Which is true ? And can the book be inspired which gives a totally false account of such a vital matter ? This is the real question. . .’

S. LAING.

CHAPTER I.

THE SCIENTIFIC VIEW OF THE PROBLEM.

FOR more than two thousand years the Intellectual World has been divided into two hostile camps. For more than two thousand years Religion and Science have been advancing rival claims to the credence of mankind, with a measure of success which has been very differently estimated by the votaries of either Cause. It appears to be the fate of every Religion sooner or later to meet with a violent opposition from the scientific minds of the day. The divinities of Greece and Rome were by no means exempt from the scoffs of heathen philosophy; and Christianity, so far from escaping the general fate, found it necessary even in her earliest utterances to warn her converts against the 'oppositions of science falsely so called.'

But now, if we are to believe Mr. Laing, the long struggle is over. Victory has at length declared herself. The fatal blow has been struck; and, so far, at all events, as Christendom is concerned, Religion lies low to rise no more. It must

be confessed that there is something a little startling in the completeness of the victory which Mr. Laing claims for the cause which he espouses. Religion, he tells us, is not merely defeated, but annihilated. It is not so much that she has ceased to exist, as that she has been proved never to have existed. That venerable Sanction which for so many ages has fanned the virtues and checked the vices of mankind is at length exposed in all her naked unreality—the most hollow and empty fraud that ever mocked the human race. Her whole fabric, we are told, is built upon false foundations; her first principles are rooted in fallacy; the Bible not merely is not, but *cannot* be inspired.

There is a danger in extremes. The *mediotutissimus ibis* of the Poet is the expression of a universal truth. So long as Science confines herself to attacking any of the positions of Religion on the ground that they *are not* true, she is assuming an attitude which, however much we may resent it, we may perhaps find it difficult to positively discredit. But when, with Mr. Laing, she rashly adopts the extreme course of impugning the Bible as a logical *impossibility*, she is playing with a weapon which, if unskilfully handled, may by the keenness of its edge endanger the very arm which wields it.

An accusation such as that advanced by Mr. Laing leaves Religion no option but to put in a defence. To an Authority which claims to base her doctrines upon Infallibility, and the very breath of

whose life is professedly the Truth, the charge that she 'gives a totally false account of a vital matter' must, if substantiated, prove fatal. It is impossible to ignore either the existence or the influence of a book which, as is testified by its wide circulation, has been read by thousands and tens of thousands, and the modest object of which is to 'endeavour to show how much of religion can be saved from (what its author complacently terms) the shipwreck of Theology.' Not a few, doubtless, of Mr. Laing's readers will be both able and apt to detect for themselves the fallacies which underlie many of his more important positions; but it can scarcely be doubted that his book must be read by thousands who are content to accept his arguments without investigation, and to treat his conclusions as final. By such readers silence on the part of Religion will be accepted as evidence of defeat. If she refuses an answer it will be thought that she does so because she has none to give; and an attitude of careless indifference will be readily interpreted as tantamount to a confession of judgment.

We propose, therefore, in the following pages to consider shortly the heaviest of the counts which Mr. Laing lays to the charge of Religion, and to inquire how far this part of his indictment is supported either by fact or reason.

In dealing with beliefs of the first magnitude, we have a right to demand that objections should not be put forward wantonly or without due delibera-

tion. We have a right to demand that a Religion upon which depend the highest and dearest hopes of mankind be not outraged by accusations based upon the distortions of carelessness or ignorance. And we have a special right to demand of Mr. Laing that, when he, to a certain extent, disarms opposition by appealing to us in the honoured name of Science, he should have taken double pains to ensure that his method should be truly scientific, his facts unimpeachable, and his logic free from fallacies.

Let us now for a moment inquire how far Mr. Laing, as tested by his own writings, has exhibited that scientific accuracy which the nature of the subject demands, and which his pretensions as a scientist ought to have ensured ; and for the sake of brevity, we will adduce only a single specimen, chosen almost at random from his writings, as a test of his right to claim these two requisites—historical and logical accuracy. And first as regards the accuracy of his facts.

In criticising the cosmogony of the Bible, Mr. Laing asserts that Genesis

‘states . . . that the earth was created on the third day, as defined by an evening and a morning, and the sun, moon, and stars on a subsequent day.’

Is Mr. Laing here quoting from memory ? or did he take the trouble to refer to the first chapter of Genesis before he penned this portion of his

Philippic? In either case, we would ask him to look once again at the text, and see if he can there find the wonderful 'statement' which he justly derides. Will he believe us when we tell him that he will look in vain? Mr. Laing is not, we believe, a practical geologist, nor do we ask him to be a practical Hebrew scholar; but it needs no Hebrew scholarship to realize that there is a difference between 'bara' and 'asah'—between to *create* and to *make*. That difference may appear to Mr. Laing to be very trifling, but in the eyes of Science the two terms are separated by the widest of all gulfs—the gulf which divides 'the Knowable' from 'the Unknowable.' The term 'to create' (by which is meant 'to produce something out of nothing') is characterized by Mr. Herbert Spencer as the attempt to express a process which, though 'verbally intelligible,' is mentally 'inconceivable'; 'to make,' on the other hand (by which is meant 'to construct out of some pre-existing material'), represents a process which is tolerably well understood, and which is everywhere in active operation at the present day.

Now, if we refer to the text, we shall find, as regards the earth, that it is not only not stated to have been *created* on the third day, but, on the contrary, is expressly stated to have been created 'in the beginning'—at a date probably prior to, and by no possibility later than, the first day; while, as regards the sun, moon, and stars, the fact stated

with reference to them in the sixteenth verse (to which Mr. Laing's assertion is evidently intended to relate) is not that they were *created*, but that they were *made*.

We shall hope to show on a future occasion that these discrepancies between Genesis and Mr. Laing's version of Genesis make just the difference between the truth or untruth of that narrative; at present we must content ourselves with pointing out that, in dealing with a problem which, from its transcendent importance, deserved from Mr. Laing the exercise and concentration of his utmost intellectual powers, he has displayed a carelessness so facile as to have betrayed him into a misrepresentation, amounting to the substitution of the inconceivable for the conceivable, apparently without a moment's hesitation, and—must we not add?—without a moment's thought.

We have no wish to unduly press the point—it is one out of many—but we cannot dismiss it without remarking that Religion has the right and the duty to complain when professed votaries of Science, while pretending to condemn her on grounds based upon 'calm and unimpassioned reasoning,' attempt to deduce conclusions from statements which will not bear a moment's investigation, and blunders which would cost a schoolboy a flogging.

When we turn to the question of Mr. Laing's logical acumen, we have no better reason to be satisfied. Here we will adduce as our test the

words which we have already quoted at the commencement of this work :

‘As regards Adam’s fall, the discovery of Palæolithic man is that which has really given the greatest shock to received theological opinions. . . . *The two statements cannot both be true—one that man has fallen, the other that he has risen.*’

This is a good instance for our purpose, for the judgment which Mr. Laing is here pronouncing is one of peculiar solemnity. It is based, not upon mere statements of facts, which may or may not be correct, but upon pure reasoning, which admits of no two opinions. He does not say that, as a matter of fact, man has not both fallen and risen, but that, as a rational necessity, it is impossible that he should have done so. The proposition is grounded, not upon historical denial, but upon logical prohibition. In the very nature of things, the two statements *cannot* both be true.

It is scarcely necessary to remark that Nature furnishes innumerable instances in illustration of the fact that it is not necessarily *impossible* for an individual to advance in two diametrically opposite directions simultaneously. The principle which regulates the growth of every member of the vegetable—and, indeed, of the animal—kingdom bears witness to the truth of this assertion ; and the Bible is strictly scientific when it speaks of ‘striking root downwards, and bearing fruit upwards.’ We do not, of course, assert that the growth of a plant affords a complete analogy to the actual or possible

development of a human being—still less of the human race; but we do submit that it may serve to suggest the suspicion that it is not necessarily a logical impossibility for a complex entity such as man to possess two parts both of which may be simultaneously advancing in different—nay, in opposite—directions.

In order to illustrate our meaning a little more clearly, we would invite our readers to attend with us an imaginary lecture upon the history of the Evolution of Man. We seat ourselves in a darkened room before a white curtain upon which the rays of a magic-lantern impinge. Three pictures successively present themselves before our gaze. The first discloses a dismal cavern, dimly lighted by a smouldering fire. At the first glance the eye can scarcely detect in the uncertain light the revolting objects which crouch over the fitful blaze, or dance around in savage glee; but gradually they grow distinct and plain—the horrible forms of Palæolithic Man. No spectator can doubt what they are doing. A number of blood-stained stone-axes and hammers scattered about the floor betoken a recent fray. In a corner of the cave a dozen hapless captives lie huddled together awaiting their fate; while the charred fragments of human limbs which the wretches by the fire are rending and gnawing bear witness to the inhuman meal.

The scene changes, and before us lies a garden in which a man and woman are at work. Their

naked forms and uncouth implements mark them as belonging to a primitive and barbarous civilization. In the rude simplicity of the scene we look in vain for the promise of Science or Art ; but a mighty change has passed over the human beings, and distinguishes them widely from their Palæolithic ancestors. Savagery has given place to gentleness, brutality to love ; and, in spite of their lowly intellects and humble occupation, they display in every look and gesture the grace of an undefinable nobility—a touch of the Divine, a reflex of the Spirit of God.

Once more the picture melts away, and before us stands a mighty City—the Metropolis of the world. Everywhere wealth and splendour lie scattered around in wild profusion. Her citizens dwell secure in the pride of ease and luxury. At length Mind has triumphed over Matter ; and the Universe has yielded up to man her secrets to swell the volume of his power, or to minister to his pleasures. Everything betokens the supremacy of Intellect, whose weapon is Science, and whose plaything is Art.

But amid the gorgeous domes and palaces we look in vain for the Temples of God. Religion has passed away ; and in her place there reigns a code of Morality not ineptly prefigured by the bestial passions of Pasiphaë or the fugitive loves of Aphrodité. Vice stalks through the splendid halls triumphant and unforbidden ; and, with a perverted ingenuity, allures her votaries by arts cunningly devised to kindle afresh sated desires or provoke

jaded appetites. The scene, in fact, presents to our gaze the picture of a terrible contrast—man risen to the zenith of intellectual possibility, but sunk in the abyss of spiritual death.

And now the Lecturer steps forward and addresses his audience.

‘Gentlemen,’ he says, ‘the three pictures which have just been submitted to your notice represent three stages in the history of man. The highly intellectual but vicious animal whom you saw depicted in the third and last picture is the lineal descendant of the Gardener and the Savage; and he represents the condition towards which mankind is even now hastening. The brutal barbarity of the Palæolithic, the primitive and modest civilization of the Husbandman, have given place to a scientific development almost infinite, an intellectual capacity almost divine. But side by side with this wondrous growth you will have observed a corresponding decay. The purity and innocence which characterized our second picture have yielded to the gradual encroachments of Vice, until it may be asserted that man’s last state of immorality has become, by its very association with intellectual advance, ten times more abysmal than even the enormities of his savage progenitors.

‘This last picture, though an attempt to present the future before your eyes, must not be regarded as wholly fanciful or illusory. While duly according to Intellect a just recognition of that vast progress

which has everywhere marked her triumphant course, there are many who believe that the sanctions of morality, though they may linger awhile and die hard, will not long survive the decay of Religion. Gentlemen, I say no more—I would merely remark that man is a highly complex animal; and I must then leave it to you to judge for yourselves whether his history has been one of rise or fall.'

Instinctively we turn to Mr. Laing. In spite of ourselves, the question thrusts itself upon us, 'May not this history comprise both?' With the words of the Professor still ringing in our ears, the dormant suspicion once more arises that a composite question may require a composite reply. Is it not possible that man's intellectual capacity may have advanced in one direction, and his religious in another?—that he may have risen in one sense, while he has fallen in another? Suppose for a moment we compare the history of his Evolution to the course of a river. Let the increasing volume of the stream represent the growth of his intellectual capacity, and the direction of its course his religious progress. Is it not just possible that his intellectual powers may have increased as he draws closer to that unfathomable sea of intellectual possibility which now appears to lie close before him, and yet that all the while he may have been quietly falling further and further away from God, just as the river, while it increases in volume as it nears the ocean, is yet

(to borrow the words of the poet) 'farther off from heaven' than when it was a babbling brook high up on the mountain-side? We glance tentatively at Mr. Laing as we venture the question. But no; his 'calm and unimpassioned reasoning' is proof against tropes and similes: 'The two statements *cannot* both be true—one, that man has fallen; the other, that he has risen.'

But now let us turn to Mr. Laing's original proposition, and inquire what is this 'entirely new discovery' which has put to shame the old time-honoured cosmogony of the Bible, and which, while 'flatly contradicting the narratives of recent descent from Adam and Noah, assails in its most vital point the whole dogma of Pauline Christianity.'

Shortly stated, the position is as follows:

From the recent investigations of Geologists, it appears that man is of much greater antiquity than was until lately supposed. Modern explorers have unearthed from Quaternary strata thousands of stone implements which are confidently pronounced by Geologists to be undoubted human productions; and it is now maintained by many of the leading Palæontologists that human handiwork has been discovered in Pliocene, and possibly even in Miocene, deposits. Pictures and prints of implements believed to have been manufactured by Neolithic and Palæolithic man have rendered their general character familiar to all. The most ancient are pieces of

flint, or other hard stone, broken or chipped into shapes irregular and uncouth, but still with the apparent purpose of being used for scrapers, chisels, or borers; while late Neolithic specimens exhibit flint adzes and spear-heads but little inferior to those produced by New Zealanders at the present day. Rough calculations have been made with a view to fix the date of man's first appearance upon our planet; and though the figures are necessarily only approximate, Science avers that there is good reason to believe that he has existed for a period of between one and two millions of years.

Now, with this undoubted testimony of the rocks the Bible narrative appears to be in direct conflict. In its pages we find what is unquestionably intended to be a connected history of man, from Adam down to historical times. There we see genealogies traced, and births, deaths, and ages recorded, with a particularity which enables the whole space of time covered by the Bible history from Adam downwards to be calculated with at least an approximate accuracy; and an examination of these details renders it clear that, if the Bible history is correct, the date of Adam's first appearance cannot be placed earlier than some four thousand years before Christ.

But such figures as these the geologist laughs to scorn. Where the Bible deals with years, he deals with centuries and tens of centuries. What, then, is to be said as to the truth of the Bible account of

the first man, when his Palæolithic remains prove incontestably that man existed throughout the Quaternary, and probably far into the Tertiary, periods?

This very apparent difficulty is supplemented by another. The Bible, so say the scientists, represents primal man as having been endowed with a glorious nature and high faculties, which he subsequently partially forfeited. Geology, on the contrary, points to exactly the reverse process. The earliest cave-dwellers must have been so barbarous and rude as to have been scarcely distinguishable from the brutes; and the subsequent history of man has been a history of gradual progress and improvement, from worse to better, from lower to higher.

To these two objections Science demands a reply. What answer will Religion return?

The first objection certainly at first sight appears insuperable: how can the four thousand years narrative be reconciled with the Palæolithic human remains? But a moment's reflection will show that the difficulty is apparent only. The whole question is simply a question of terminology. Everything depends upon our definition of 'man.' The truth is that the second objection suggests the solution of the first. These barbarous, brutish cave-dwellers—nay, these comparatively civilized lake-dwellers—in virtue of what attributes, or on what grounds, does Science call them men? Let not our meaning be

misunderstood. We are not accusing Science of a misnomer, nor do we dispute for a moment the title of Neolithic or even Palæolithic man to be classed in the *genus* 'homo.' We are prepared to be told that the answer to our question is to be found in the undoubted fact that the Palæolithic, as well as the Neolithic, remains exhibit unmistakable signs of being the productions of human design, the handiwork of intelligent and, in the case of the more recent specimens, even skilful workmen; and that hence it is not only just, but unavoidable, to conclude that at the period referred to man must have existed. All this we grant; but now we call for the scientist's definition of 'man.'

It is not a little remarkable how readily philosophers fall into the errors which they so ably expose in others. Mr. Laing, in the supplemental chapter to 'Modern Science and Modern Thought' (from which we have already quoted) attacks Professor Drummond's 'Natural Law in the Spiritual World' on the ground (amongst others) that it contains no attempt to define the 'spiritual world'—a definition, by the way, which, as *we* understand Mr. Drummond's argument, was wholly unnecessary for his purpose. But in the same book which contains this attack, Mr. Laing has, we venture to think, himself been guilty of that very error of which he accuses the Professor. At the opening of his chapter on the 'Antiquity of Man,' after referring to the fact that recent geological discoveries have estab-

lished 'the enormous antiquity of man upon earth,' he writes as follows :

'It is needless to point out in what flagrant and direct opposition this stands to the theory that man is of recent miraculous creation, and that he was originally endowed with a glorious nature and high faculties, which were partially forfeited by an act of disobedience.'

And, after this exordium, he proceeds with his proof—which we confess appears to us to be entirely conclusive—of man's 'enormous antiquity.' But if we venture to ask, what is this 'man' who is the subject of Mr. Laing's discourse, we receive no answer. From the first page to the last 'there is no attempt at definition.' It is throughout taken for granted that such a simple piece of mechanism as man is well understood by all; nor does it apparently ever occur to Mr. Laing that there can be two opinions on the subject. It is true that he occasionally and incidentally refers to the 'faculties by which man is commonly distinguished from the brute creation, viz., that of being the speaking and the tool-making animal'; but he nowhere commits himself to anything like a definition. This omission in a professedly scientific book is the more remarkable inasmuch as Mr. Laing actually goes so far as to discuss the right of the negro, as compared with the simian type of animal, to be classed in the *genus* 'homo,' and, without giving any reasons, concludes that 'he is essentially a man,'—a conclusion which, though perhaps not very likely to be disputed, pos-

sesses little or no scientific value apart from the reasons from which it is deduced.

But irrespectively of these general considerations, we have particular grounds for complaint on account of this omission of any definition, for Mr. Laing is here under special obligation to define. If the object of his book had been solely scientific, the omission might, perhaps, have been excusable. If he had been writing simply in the interests of Science, and exclusively to scientific readers, he might perhaps have reasonably assumed that as to the meaning of the term 'man' all his readers would be agreed. But such is not his sole object. His whole book is a challenge. Mr. Laing's purpose is not only to advance Science, but also to demolish Religion. When he displays before our eyes his attractive panorama of the achievements of Science, he is exercising something more than the showman's art. All the time that he is exhibiting before us the lessons of Geology, he is quietly contrasting those lessons with the teachings of another Record. His argument is this: 'Here are two histories; they conflict; therefore one must be false. If Geology is right, the Bible is wrong.'

Now, this absence of definition appears to us to strike at the very root of Mr. Laing's argument. For the purpose of his primary object—the establishment of man's enormous antiquity—it may possibly be immaterial. But when from that primary object he passes to his secondary, he has by his

omission transgressed the laws of logic. He has not been sufficiently careful to ensure the exclusion of the fallacy known to logicians as 'Æquivocatio.' In neglecting to define he has neglected to test the soundness of the link which binds his premise to his conclusion. He is like an engineer who, having paid no attention to the couplings between his engine and tender, should start his engine and expect the tender to follow.

Moreover, in this particular case, the omission happens to be especially unfortunate—we had almost said unfair—because in making it Mr. Laing has quietly ignored what is to Science an insuperable difficulty. The truth is that, from the scientific point of view, man defies definition. Science never has defined, and never will succeed in defining, man—by any definition, that is, which possesses the essential requisites of at once including all members of the *genus* 'homo,' and excluding all others. The reason for the impossibility of so doing is grounded in the very nature of things. The Evolutionist's theory, if true, absolutely precludes any such definition.

For consider the matter a little more closely. Accepting the theory of Evolution, we assert that the man of to-day has evolved from the ape—or, at least, from an ape-like being—of the past. We are speaking now of the physical part of man, as to which Evolutionists are more or less agreed—we will even include the purely intellectual part—but we leave out of sight for the moment his religious

faculties, as to which Evolutionists are by no means unanimous. Evolution, then, teaches that there has existed an immensely long chain of beings starting with the ape-like being at the one end, and ending with man at the other, and exhibiting in its course every grade of transition between these two poles. The time which must have been occupied in the effectuation of this triumph of evolution must, we are told, have been immense—almost immeasurable; and the process of change must have been correspondingly gradual—almost imperceptible. We welcome both these two last considerations, for they will help to explain our meaning. Now picture to the imagination this immense chain of creatures complete; let it pass before the mind's eye with each link in its proper place. And let it be remembered that in proportion as the chain is long—and it is *ex hypothesi* immense—so will the grades of transition be correspondingly infinitesimal. Now, which of these creatures are monkeys and which men?

Near either extremity of the chain it is easy to distinguish; the anthropoid apes near the one end are readily separated from the human beings near the other by marks of distinction broad and well defined. But if we try to pursue the process far, we are met in time by a hopeless difficulty. Where the shades of gradation are infinitesimal, it is manifestly impossible to draw, in accordance with any rational basis, a distinct line of demarcation between

two adjoining individuals, and to say of one of them, This is ape, and of his companion, This is man. We do not say that such a line of demarcation cannot be drawn; if every individual in the series we have imagined is to be classed—and Science insists upon classifying every being of whom she treats—such a line obviously must for practical purposes be drawn somewhere. But what we would point out is that the drawing of such a line will not be decided by any *ratio dividendi* based upon inherent differences in two adjoining individuals (for such differences are *ex hypothesi* practically imperceptible), but will be arbitrary and, to a certain extent, irrational. Two independent scientists might conceivably, with equal justifiability, draw the line at two very different places, even though they were both actuated by the same views as to what the *ratio dividendi* was to be. And obviously their conclusions as to where to draw the dividing-line might—or, rather, would—be still further at variance, if their views as to the proper basis of distinction differed—if, for instance, the one attached greater importance, as a distinguishing feature, to the possession of a great toe, instead of a thumb, on the foot; whilst the other based his distinction rather on the comparative shortness of the arm or the flatness of the jaw. In such a case it is quite conceivable that the two lines might be drawn very far apart, and yet that it would be quite impossible to justify on any rational ground the assertion that

the one line was less correctly drawn than the other.

But assuming Science to have drawn her arbitrary line between two apparently identical individuals, and to have settled that 'man' shall commence from that point, what sort of definition can she devise which will include all the individuals above that point, while it equally excludes all those below? Such a definition is clearly impossible. The only conceivable description which would be at once sufficiently inclusive and sufficiently exclusive would be one based not on characteristics, but on individuals, which would be no definition at all.

Now, the case which we have just put is not purely hypothetical. It is of the very essence of Evolution. In theory, at least, the chain we have suggested is to the evolutionist a reality; and every fresh discovery of an intermediate link serves to emphasize with increasing clearness the real difficulty of classifying and defining. Nor does the difficulty diminish when we pass from pure theory to practical application. The scanty knowledge which we possess of these prehistoric beings increases our perplexity. Test them, for example, by Cuvier's celebrated definition of man—'a mammiferous animal having two hands.' If, as a matter of theory, it is difficult to fix the link in the ape-man chain at which four hands cease and two hands commence, how much more perplexing to classify in this respect a being whose hands we have never seen!

If, again, for Cuvier's definition of man we substitute the old scholastic definition of 'a rational animal,' we are no better off. To the evolutionist Reason—the offspring of Thought and Language—is but a product of evolution. Between the instinct of the gorilla and the dreams of the philosopher, between the senseless cries of the Gibbon and the noble diction of a Milton or a Shakespeare, there is a difference not of kind, but of degree. Each of these faculties is, in theory, at least, linked to its parent germ by a chain of graduated transition, and in either case the several grades of development are again imperceptible. Here, then, once more we find ourselves face to face with our old problem. Apart from the theoretic difficulty of fixing the exact point at which instinct becomes reason, and sound becomes language, how are we to classify beings whose thoughts we have never scanned and whose voices we have never heard?

But, while drawing attention to these difficulties, we are very far from objecting to those scientists who classify even the earliest Palæolithic beings as men. Science has an undoubted right to make her own classification, and, having done so, to frame on the basis of that classification the best definition she can; and her classification may for scientific purposes be perfectly correct. If she chooses to class the manufacturers of the Neolithic and Palæolithic remains in the *genus* 'homo,' and to frame her definition of man accordingly, we certainly shall not

object to her so doing ; but what we do maintain and insist upon is that she is entitled to so class them *only for scientific purposes*. Religion also is entitled, no less than Science, to make *her own* definition of man ; and that definition, even though at variance with the definition of Science, may for the purposes of Religion be equally true. Nay, more ; the definition of Science, though scientifically true, may for Religious purposes be absolutely incorrect. Hence it is that there may be no real conflict between the two histories at all, for Science and Religion may not be *ad idem* as to the subject under discussion. If Science tells us that man has existed on our planet for more than a million years, and Religion asserts that the first man came into existence not more than six thousand years ago, it does not necessarily follow that there is in these two statements any contradiction ; for it may turn out that by 'man' Science means one thing, and Religion another. In that case both statements might clearly stand side by side without impugning one another ; each might at the same time be equally true.

Now, the considerations which we have been discussing may serve to show that, on *à priori* grounds, it was not improbable that the respective views entertained by Science and Religion as to the classification of man would be different. If, as we have attempted to demonstrate, the difficulties of classifying, even for scientific purposes alone, are such that two

scientists, guided by the same motives, and pursuing the same methods, might conceivably construct two very different classifications, each equally defensible and equally rational, how more than probable was it that two authorities, differing so widely from each other both in object and method as do Science and Religion, might—nay, would—arrive at conclusions widely different, though each for her own purposes equally true! There is nothing surprising in such a result. In the very nature of things it was inevitable. And it is for this reason that we justly complain that Mr. Laing, while accusing Religion of an anachronism which, if proved, must be fatal to the dearest hopes of mankind, has utterly ignored the one consideration which lies at the very root and core of the whole matter. His ‘calm and unimpassioned reasoning’ is, we submit, entirely vitiated by the fallacy of an *ambiguous middle*. Granted that Science has deliberately and, from the scientific point of view, correctly determined that, for her own purposes—which she cannot transcend—these prehistoric beings, including the earliest Palæolithics, shall be classed as ‘man,’ is Religion under any necessity, is she even under any obligation, when dealing with these creatures for *her* own purposes, to accept the terminology of Science? May it not even be that such an acceptance would in the nature of things be not only unnecessary, but actually impossible? These are questions which deserve a recognition and an answer.

For, consider. When Science proclaims that man existed on earth a million years ago, what does she really mean? Is she, with Cuvier, asserting the existence of a 'mammiferous two-handed animal,' or, with the Scholastics, of a 'rational animal,' or, with the Duke of Argyll, of a 'tool-making animal'? What are hands or breasts to a Religion which teaches that it is better to enter into Life halt or maimed rather than having two hands or two feet to be cast into everlasting fire? What is Reason to a Theology whose boast it is that it hides its mysteries from the wise and understanding, and reveals them unto babes? We do not suggest that the beings for whom Religion claims humanity will—or even could—be wanting in these attributes. But what right has Science to assume, and, in the face of express declarations to the contrary, to insist that they are, for the purposes of Religion's classification, *the* distinguishing features? And if they are not, what could be more irrational, what could be more unscientific, than to seek to force upon Religion a classification based upon traits which she disregards, and attributes which she sets at naught? Yet this is what Mr. Laing, in the name of Science, is doing. He requires that the first man of the Bible shall be the first man of Science; and when we reflect that Religion claims for the beings whom *she* classes as man a place so high in the scale of Evolution as to involve the possession of a faculty incomparably transcending in subtlety and sublimity even the

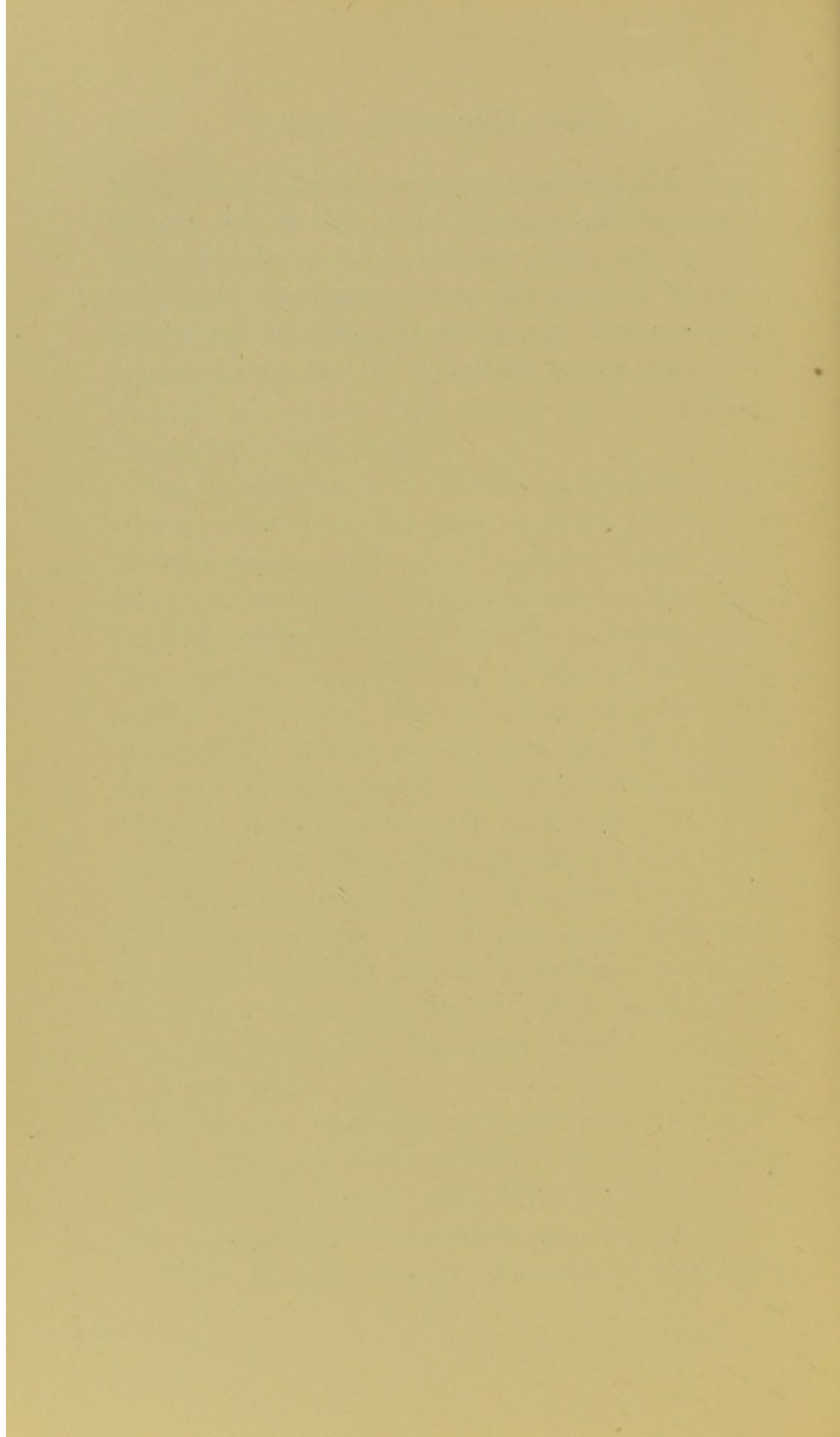
highest possibilities of intellect, and inquire in virtue of what characteristics, or on what ground, Mr. Laing claims for his prehistoric man a place by Adam's side, this is the answer which we receive: 'Because he chipped rude flints on the banks of frozen rivers; because he chased the mammoth and the reindeer; because he polluted his cavern home with the horrors of cannibal feasts'!

But if Religion is entitled to her own definition of man, what is that definition to be? The answer to this question must depend upon the nature of the considerations which Religion takes into account in drawing *her* border-line between man and not-man. And here we are in a position to form a definite and reliable conclusion. For, when we pass from the standpoint of Science to the standpoint of Religion we step at once on to firmer ground. Unlike Science, Religion separates man from the lower animals by a sharp dividing-line; the distinction between them here is not one of degree, but of kind. The Bible presents a perfectly clear and consistent theory on the subject; here we find man contrasted with 'the beasts that perish.' This, according to Religion, is the point of departure—the brute perishes, man does not.

Taking this distinction as the basis of her classification, Religion, in her very first utterances, gives us her definition of man. She distinguishes him from all other animals as 'created in the image of God.'

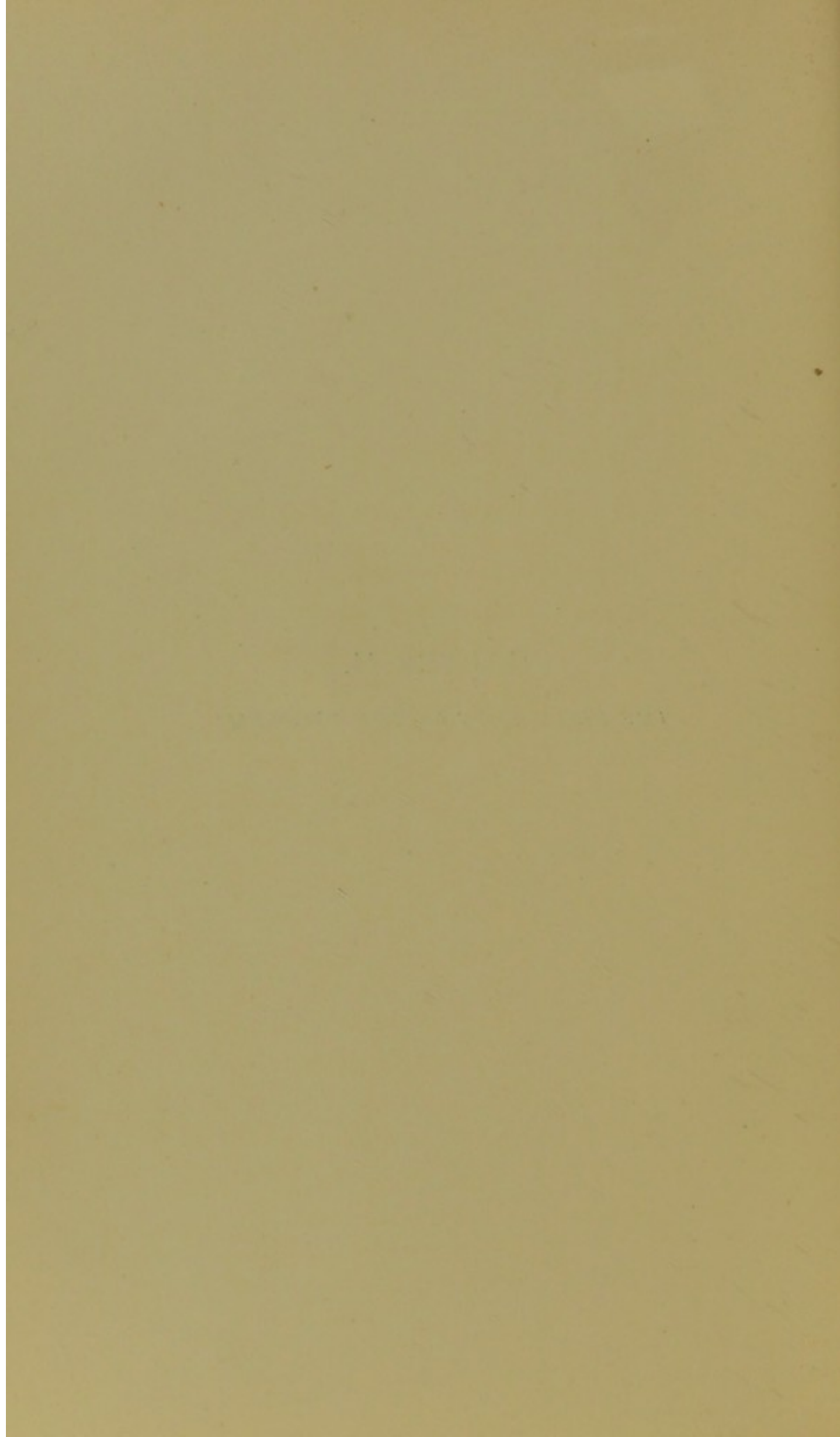
What does this mean? In order to answer this

question it is necessary to consider what is the Bible history of the origin of man ; and as this inquiry involves the vexed question of the so-called six days' work of creation, we must ask our readers' patience while we seek once more, as briefly as the subject will allow, the true solution of that time-honoured problem.



CHAPTER II.

THE BIBLE VIEW OF THE PROBLEM



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THE first step towards ascertaining the true interpretation of the first chapter of Genesis, is to realize as vividly as possible the radical distinction to which we have already alluded, and which Mr. Laing appears to have entirely ignored, between to *create* and to *make*. 'Create' represents the 'mentally inconceivable' process of *producing something out of nothing**; to 'make,' on the other hand, means to *construct out of some pre-existing material*.

Bearing this radical distinction carefully in mind, it is next to be observed that the first chapter of Genesis is divided into two separate and distinct parts, which, though they cannot be too widely distinguished, are by the majority of readers habitually confused together. The first part, which is comprised in the first two verses, relates the origin and primordial condition of the factors out of which the

* There is a consensus amongst Hebrew scholars that this is the meaning of 'bara,' which throughout the first chapter of Genesis is rendered 'create,' both in the Authorized and Revised Version.

material Universe, including the material parts of the vegetable and animal inhabitants of our planet, were subsequently formed; the second part, which comprises the remainder of the chapter, narrates the mode and chronological order in which out of those factors the formation of the Universe was effected. In other words, the first two verses relate 'the Creation'; the last twenty-nine verses narrate 'the Formation.'

That a proposition so persistently ignored—and, indeed, by the majority of readers so little suspected—requires some justification we freely admit; but that it can be fully justified will, we think, become clear upon a moment's reflection. For in the whole of the first chapter of Genesis, which purports to give an account of the origin not only of our planet, but of the whole Universe, Sun, Moon, and Stars included, so far as the material part of the Universe is concerned, one and only one act of creation is related—that, namely, contained in the first verse, 'In the beginning God created . . . the earth.' It is true that the word 'create' occurs twice again in the chapter, namely, in the twenty-first verse:

'And God *created* great whales, and every living creature that moveth, which the waters brought forth abundantly, after their kind, and every winged fowl after his kind';

and again in the twenty-seventh verse:

'So' (Revised Version, 'And') 'God *created* man';

but it is clear that the acts of creation mentioned in these two passages do not relate to the *material* parts of the organisms referred to, for the nineteenth verse of the second chapter represents that the 'moving creature,' so far as its material body is concerned, was not created, but *formed* out of a then already existing material :

' And *out of the ground* the Lord God *formed* every beast of the field and every fowl of the air';

and, similarly, the seventh verse of the second chapter states that man's material part had a similar origin :

' And the Lord God *formed* man *out of the dust of the ground*.'

We will consider hereafter, when we come to deal specifically with the Bible account of the origin of man, what was the attribute in the respective organisms that was the subject of each of these two acts of creation ; at present we would merely point out (which is all that our immediate argument requires), that they have no relation to any *material* subject-matter ; whence it follows that so far as 'matter' is concerned, one, and only one, act of Creation is recorded, that, namely, contained in the first verse.

But if this be so, then it appears almost necessarily to follow that 'the Earth' of the first verse means not merely our planet, but 'Matter' generally. As we have just remarked, the chapter purports to

relate the origin not only of our world, but of the whole Universe, the Sun, Moon, and Stars included. Now, if we compare 'the heaven' of the first verse with 'the heaven' of the eighth verse—

'And God called the expanse heaven,'

it is obvious that the former expression has a wider meaning than the latter: it includes not only the space immediately surrounding our planet (which is its meaning in the eighth verse), but space generally; it means, in fact, what Science calls *Space*; no other meaning appears assignable to it. Similarly, if we compare the 'Earth' of the first verse with the 'Earth' of the tenth verse—

'And God called the dry land Earth,'

we find that the former expression has a correspondingly wider signification than the latter. If, then, bearing these facts in mind, and also recollecting the distinction, to which we have already alluded, between the two parts of the chapter—the 'Creation' and the 'Formation'—we further reflect that the first part, in giving the origin of the materials out of which the subsequent Formation was effected, states those materials to have been 'the heaven' and 'the earth,' both of which terms we find are used in an extended sense, and one of which ('the heaven') is evidently the equivalent of what Science calls 'Space,' we can scarcely avoid the conclusion that the other term, which seems clearly intended to represent the

other half of the picture, is meant to express the counterpart of Space, that, namely, which Science calls *Matter*.

We find this conclusion still further confirmed when we turn to the description of the Formation of the Sun, Moon, and Stars contained in the sixteenth verse :

‘And God *made* two great lights . . . the stars also.’

Here the word *made*, necessarily implying, as it does, that they were formed *out of some then existing material*, strongly confirms the interpretation for which we contend, for the origin of that material is nowhere recorded if it is excluded from ‘the Earth’ of the first verse. If such an exclusion had been in accordance with the author’s meaning, it is almost inconceivable that he would not either have given a special account of the origin of this particular material (so as to avoid a palpable omission), or else have substituted (as Mr. Laing inaccurately alleges that he has done) the term ‘created’ for ‘made’ in his account of the origin of the Sun, Moon, and Stars.

Passing now from the account of the Creation contained in the first two verses, we will proceed to consider the description of the Formation as narrated in the remainder of the chapter ; and in so doing we shall deal with the subject especially with the view of eliciting what is the Bible account of the origin and antiquity of Man.

The history contained in the last twenty-nine

verses of the first chapter of Genesis is divided, as is well known, into six days, in each one of which certain events are represented to have taken place. What are those events? The reply which the religious world has given to this question has in all ages been almost unanimous. In the six days God made the heaven and the earth, the sea, and all that in them is. Starting with nothing—or, rather, with the raw material mentioned in the first two verses—within the space of the ‘six days’ the universe stood complete—practically as complete as it is at the present time.

That this is the meaning of the text has scarcely ever been seriously questioned; and for centuries the ‘six days’ were undoubtingly accepted as representing six days of twenty-four hours each. But as scientific research and knowledge increased, a suspicion at length dawned upon mankind that this interpretation was untenable; in course of time the study of the earth’s crust first suggested the suspicion, and finally enforced the conviction, that the six days had, as a matter of fact, been largely exceeded. The question, of course, was not, What could the Deity have done? but, What, as a matter of fact, had He done? And Geology insisted, with an ever-increasing vehemence, that the structure of our planet afforded undeniable indications that the earth had been in existence for ages before the first appearance of man. Vainly did Theology attempt to stem this torrent of heresy.

The voice of Science grew daily louder, and was not to be gainsaid, until at length it became necessary to face what could be no longer suppressed.

Religion met the difficulty by a somewhat clumsy subterfuge. If six days were too short a space of time, for 'days' substitute 'periods'; let the six days represent six periods, each of indefinite duration, and every difficulty would vanish.

We may dismiss this expedient with a passing notice. We agree with Mr. Laing that the definition of each day given in the text, as consisting of an evening and a morning, renders the suggested interpretation untenable; and for us the six days must mean six days consisting of one morning and one evening each. We have, therefore, still to face the problem of how to reconcile the Bible six-day narrative with the countless ages which Astronomy and Geology insist must have elapsed between the earliest stage in the existence of our planet of which Science or History can take note and the first appearance of man.

Before propounding our own view of the true solution of this problem, we may mention an ingenious interpretation of the text which has been suggested by Mr. Pember in his 'Earth's Earliest Ages.' He suggests that the word which in the second verse is translated 'was' is occasionally used with a simple accusative in the sense of 'to be made,' 'to become.' Hence he translates the first two verses as follows:

‘In the beginning God created the heaven and the earth, and the earth (subsequently) became desolate and void.’

He thinks that a vast period elapsed between the date of the creation recorded in the first verse, and the date to be assigned to the events related in the second and following verses, so that the remainder of the chapter narrates not the first formation of the planet, but the *reconstruction* of a previously created earth. Whatever ages Geology requires Mr. Pember allocates to the interval which he supposes to have elapsed between the events related in the first and second verses respectively; and thus he claims to meet the requirements of Geology, without impugning the Bible narrative.

But here again we are unable to accept the suggestion, for it does not really meet the requirements of Science. Mr. Pember apparently understands the chapter to mean that this reconstruction was effected by a series of some sort of mechanical actions on the part of the Deity in the course of the six days, an interpretation which is in reality but a modification of what Mr. Herbert Spencer derides as ‘the Carpenter-theory of Creation.’ We believe that such an interpretation is opposed no less to the meaning of the text than to the established doctrines of Evolution, and that it must therefore be rejected both on critical and scientific grounds. Yet it is not undeserving of a passing notice, because it draws attention to the radical distinction (to which we have already referred, and which cannot be too strongly

emphasized) between the Creation recorded in the first two verses, and the subsequent events narrated in the remainder of the chapter.

With these remarks we will dismiss Mr. Pember's suggested interpretation, and will proceed with our inquiry as to what is the true explanation of the Bible history of the six days' work of 'Formation.'

When we turn to the text, we at once observe that the history of each of the six days is uniformly introduced by the notable words, 'And God said.' No reader, however superficial, can fail to be struck by this remarkable circumstance, that God on each day is in the first instance represented not to have *done* something, but to have *said* something.

Now, the attitude of the Deity with relation to the first and third days is represented to have been confined to *saying* alone; in the history of each of these two days He is not stated to have *done* anything. But in the history of each of the other days, He is first represented to have *said* something, and then He is subsequently stated to have *done* something; and in each of these cases it is to be observed that that which He is stated to have done is an exact, or virtually an exact, repetition of that which He is first represented to have said. Thus, in the description of the second day the text states:

'And God said, Let there be an expanse . . . and God made an expanse . . .'

the description of what He is here stated to have

made exactly corresponding with—being, in fact, an exact repetition of—that which He is first stated to have said. So, too, on the fourth day, the narrative proceeds :

‘And God said, Let there be lights in the expanse. . . . And God made two great lights . . .’

a similar, though not in this case the same exact verbal, correspondence between what was said and what was done being here again observable. A similar remark applies to each of the fifth and sixth days, the correspondence between the descriptions of the two processes of saying and doing being, in the case of each of these two days, complete.

Now, what is the meaning of this repetition? What does the writer intend when, in the course of his description of each of these days, he first states that God said something, and then that He did that which He had said? Does the narrative mean that in respect of each of these four days there were (so to speak) two distinct actions on the part of the Deity? That in the first instance God commanded, and then, His command being disobeyed, proceeded by some sort of mechanical process to effect that which His command had been powerless to produce? This interpretation (which Mr. Herbert Spencer designates the ‘Carpenter-theory of Creation’) is, we believe, almost universally accepted. But is it the right interpretation? Is it even a tenable interpretation?

In the first place, it is open to the very obvious objection that it is opposed to the whole teaching of the Bible as to the power of God. From the first page of the Bible to the last, the absolute omnipotence of God is either asserted or assumed. How, then, can we reconcile with this doctrine an interpretation which represents that the first efforts (so to speak) of the Deity towards the Formation of the Universe were failures? — that, whatever success may have ultimately attended His *actions*, the existences of the various phenomena were successively preceded by a series of ineffectual and vain commands? And be it observed that the words attributed to God are in each case not the mere propounding of problems to be afterwards solved by action, but are in the nature of direct commands; and consequently, if we assume that after these commands had been uttered anything further remained to be *done*, we are forced to conclude that the commands were (at all events to some extent) disobeyed. This is a preliminary objection of considerable weight to the suggested interpretation.

In the next place, the text apparently represents that some of the commands were *not* disobeyed. When we read,

‘Let there be Light, *and there was light*,’

we have no difficulty in concluding that the writer intends that the operative agent in the produc-

tion of the phenomenon Light was the 'Fiat' of God, and nothing more,—that in order to produce Light God did nothing beyond pronouncing the command. So, too, when we read,

'And God said, Let the waters under the heaven be gathered together into one place, and let the dry land appear: *and it was so,*'

we can scarcely avoid the conclusion that here, too, it is represented that the required phenomenon was produced not by any active formative interference on the part of the Deity, but simply by the pronouncing of a command, which was obeyed. Similarly the eleventh and twelfth verses,

'And God said, Let the Earth bring forth grass . . . *and it was so. And the earth brought forth grass,*' etc.,

necessarily give rise to a similar conclusion.

But when we read in the sixth verse,

'And God said, Let there be an expanse. . . . And God made the expanse . . .'

can we come to the same conclusion? Are we to understand that here, too, as in the three former cases, the operative agent in the formation of the expanse was simply the uttered command followed by obedience? Or must we conclude that in this case (unlike the other cases) the command was disobeyed, and that consequently God had recourse to some mechanical (some 'carpenter-like') act, to

effect that which His command had failed to produce? If the latter interpretation is the true one, what is the *ratio* for the distinction drawn between the mode of origin of this phenomenon and that of the three other phenomena already referred to? If, on the other hand, the former of the two interpretations is permissible, it will obviously have this to recommend it, that it represents the agency employed in the production of 'the expanse' to have been the same as that by which the phenomena of light, of the division of the sea and dry land, and of the origin of the vegetable kingdom, were severally brought into existence.

In choosing between these two interpretations it will be observed that they are radically distinct. The former treats the command as the operative agent, and represents the 'God said' as being the narrative proper, the subsequent 'God made' being added incidentally *by way of explanation* of what was the mechanical result of the previously narrated 'God said.' For this reason we shall, for the sake of convenience, distinguish this interpretation as 'the explanatory interpretation.' The other interpretation, which is that adopted by those who speak of the 'Carpenter-theory of Creation,' or the 'Special-Creation Hypothesis,' represents that the passage relates to some *mechanical act of construction*, and makes the 'God made' the essential part of the narrative, giving to the preceding 'God said' little or no meaning. This interpretation we will there-

fore distinguish as 'the constructive interpretation.'

Now, these two interpretations, being distinct, cannot both stand. One of them must be wrong; and it is of great importance, in order to a correct understanding of the chapter, that we should definitely conclude which of the two is the true one. Taking Evolution and the teachings of Astronomy and Geology as established facts, it must, we think, be conceded that the constructive interpretation would be irreconcilable with those facts; for Science will not allow us to suppose that man was produced by some carpenter-like process within six days after the first appearance of our planet out of the imperceptible. If, therefore, the constructive interpretation could be established as the true interpretation, we confess that we do not see how the first chapter of Genesis could be reconciled with Science. We shall, therefore, endeavour to show that the explanatory (and not the constructive) interpretation is not only the true, but the only possible interpretation; and we shall then point out what, as read by the light of that interpretation, is the Bible history of the origin of man.

We have already seen that the explanatory interpretation is strongly recommended by its compatibility with, as the constructive is discredited by its incompatibility with, the Bible doctrine of the omnipotence of God. It is a boast of English

Equity that she does nothing in vain; and it may be safely assumed that the Author of Genesis would scarcely have represented the Deity as uttering a series of vain and ineffectual commands. We have also seen that the explanatory interpretation is further recommended by the circumstance that it would attribute the origin of all phenomena to one and the same cause—namely, the *word* of God; while the constructive interpretation is further discredited by the circumstance that it would draw a distinction, grounded apparently on no rational basis, between the origin of some phenomena and that of others. But there are certain words in the text which appear almost conclusive in favour of the explanatory interpretation.

Consider once more the eleventh and twelfth verses:

‘And God said, Let the Earth bring forth grass. . . . And it was so. And the Earth brought forth grass. . . .’

Here the words ‘And it was so’ appear to conclusively indicate that the writer intends that the sole operative agent in the production of the vegetable kingdom was the command ‘Let the Earth bring forth.’ If there had been room for any doubt as to this, the ‘And it was so’ must be taken as conclusively deciding the question. What, then, is the meaning of the added words ‘And the Earth brought forth grass,’ etc.? It seems indisputable that they are added by way of explanation;

that they are, in fact, merely an expansion of the preceding 'And it was so.'

This conclusion will appear still more probable when it is remembered that in a comparatively rudimentary and undeveloped language, such as the Hebrew in which Genesis is written, there is a remarkable dearth of copulas. As Mr. Herbert Spencer has pointed out, language, like all other phenomena, progresses, in obedience to the laws of Evolution, from the homogeneous to the heterogeneous. Hence, at an early stage, fine shades of thought are not distinguished, and one single word is used to express somewhat roughly various shades of meaning, which, as the language develops, are afterwards more finely distinguished by means of separate specialized words. This phenomenon is well illustrated by the word 'and,' which, in an undeveloped language, is, if not a universal, at least a comprehensive conjunctive copula, and is very generally used to connect all sentences that require to be connected otherwise than by way of direct antithesis, irrespectively of the precise nature of the connection intended to be indicated. Thus at an early stage of language 'and' serves all the functions which at a later stage are distinguished by such specialized copulas as 'for,' 'therefore,' 'so,' 'thus,' etc. ; but by degrees, as increasing complexities of thought arise, with a corresponding necessity for distinguishing those complexities by language, these come gradually to

be distinguished by separate words, introduced as occasion arises, the original comprehensive functions of the word 'and' being correspondingly curtailed, until it, in its turn, becomes specialized to one particular shade of meaning. Thus we find that in the first chapter of Genesis, which many Scholars consider to be one of the oldest, if not the oldest, of written records that the world possesses, every single sentence that requires a copula is uniformly, and irrespectively of the nature of its connection with the preceding sentence, introduced by the single copula 'and,' even the solitary exception 'so' of the twenty-seventh verse being in the original 'and,' as is shown by its translation in the Revised Version. Indeed, the very fact of the Authorized Version having substituted 'so' for 'and' in this verse is in itself an eloquent comment on the circumstance to which we are referring. The translators of that Version, feeling that the connection of thought between the twenty-sixth and twenty-seventh verses could not be properly expressed by the now specialized copula 'and,' substituted the appropriate specialized copula 'so,' and in so doing gave the passage a rendering which, though in one sense less verbally exact, will probably be regarded as a more perfect translation by those who value a version in proportion as it presents not so much the verbiage as the meaning of the original. A similar remark applies to the first word of the second chapter of Genesis, which the Authorized

Version renders 'thus,' but which is in the original 'and,' by which word it is rendered in the Revised Version.

From these considerations it will be seen that 'and' in the text must clearly possess a wider meaning than that which is relegated to its more specialized use at a more advanced stage in the history of language. Bearing this fact in mind, we shall not only understand why it is used for the introduction of explanatory sentences, which by a later writer would have been introduced by more specialized copulas, but we shall also realize that, if we desire to rightly understand the text, it will be necessary to follow, or rather extend, the example of the Authorized Version in the twenty-seventh verse of the first chapter, and the first verse of the second chapter, by giving to 'and' its wider and more comprehensive meaning. Admitting these considerations, few probably will dispute that the first 'and' of the twelfth verse may properly be rendered 'for.' The two verses, in fact, read as follows :

'And God said, Let the Earth bring forth . . . and it was so ;
for the Earth brought forth. . . .'

This rendering, without in the least altering the sense of the passage, will serve to make more clear the force of the explanatory interpretation.

When we turn to the sixth and seventh verses a similar conclusion is forced upon us :

'6. And God said, Let there be an expanse in the midst of the waters, and let it divide the waters from the waters. 7. And God made the expanse, and divided the waters which were under the expanse from the waters which were above the expanse: *and it was so.*'

For to what do the last four words relate? Clearly to the 'God said' of the sixth verse, and not to the 'God made' of the seventh verse; for if referred to the latter they would be meaningless. There is, perhaps, a slight apparent inversion in the order of the sentences contained in the seventh verse, but the construction is the same as before; and even the apparent inversion disappears when viewed by the light of our foregoing remarks on the copula 'and.' For, bearing those remarks in mind, and further considering that the primary object which the writer of Genesis had in view was, doubtless, not so much to explain scientifically the *mode* of genesis of the phenomena which he describes as to emphasize the fundamental principle which underlies all Religion that it is God who is their Author, it will probably be very generally admitted that the meaning of the sixth and seventh verses will be not inaccurately rendered by the following paraphrase:

'And God said, Let there be an expanse, etc. . . . *Thus* it is God who made the expanse and divided the waters from the waters, *for* it came to pass as He commanded.'

Here, once more, the substitution of the specialized copulas 'thus' and 'for' for the then comprehensive copula 'and,' whilst further illustrating our previous

remarks, will help to show that in the case of the sixth and seventh verses the explanatory interpretation is no violation of the text. But even without assenting to the above paraphrase, we appear to have no escape from the conclusion that the words 'God made the expanse' are merely added by way of explanation of what was the result of the previously narrated command—are, in fact, again merely an expansion of the preceding 'and it was so.'

Similar remarks obviously apply to the history of the Formation of the various phenomena described in the remainder of the chapter; in each case it becomes clear on examination that the explanatory interpretation in no way conflicts with the text.

Thus far we have been dealing solely with internal evidence, but there is a further test which we may apply. Let us now consider how far it supports the explanatory interpretation.

In arriving at the true meaning of difficult passages, two kinds of tests are admitted by scholars—the one is known as internal, and the other as external criticism. If a classical student is in doubt as to the meaning of some passage in a Greek author, he inquires whether any other Greek writer, either actually or approximately contemporary with the author in question, has left on record what *he* understood to be the meaning of the doubtful passage. If such a writer can be found, and if he wrote at a period when the language of the original author

was still spoken and written, and therefore likely to be correctly understood, the scholar will attach great importance to *his* interpretation of the passage. A Greek writing to Greeks four hundred years before Christ would be likely to be correctly understood by Greeks speaking and writing at a date when the language, and particularly the form and mode of expression employed by such writer, were still in vogue; and similarly, if we can find a Hebrew author who wrote whilst the language and mode of expression employed by the author of Genesis were still in vogue, and who has pronounced an opinion between the explanatory and constructive interpretation of these passages in the first chapter of Genesis, the judgment of such an author upon the point will be little less than conclusive.

There is such an author, and he has pronounced such a judgment. The care with which the Hebrews preserved their Scriptures, and especially the books of Moses,* is well known. This fact, coupled with the frequent and obvious allusions which the Psalms make to the Pentateuch, leaves but little room to doubt that the Psalmists were perfectly familiar with the first chapter of Genesis. Writing, then, with this chapter before him, this is David's view of the agency by which the universe

* For arguments in support of the antiquity of the Pentateuch the reader is referred to Mr. Gladstone's 'The Impregnable Rock of Holy Scripture.'

was formed ; this is, in other words, the interpretation which David puts upon the language of Genesis. Of the earth, he writes :

‘For *He spake the word*, and it was done ; *He commanded*, and it stood fast.’

And of the heaven and its worlds he is, if possible, still more explicit :

‘*By the word of the Lord* were the heavens made, and all the host of them *by the breath of His mouth*.’

This last is David’s interpretation of ‘and God said, Let there be lights in the expanse. . . . And God made two great lights, the stars also.’ It is true that David elsewhere speaks of the heavens as ‘the work of Thy fingers’ ; but this and other passages in which existing phenomena are referred to as the works of God’s *hands* will be found, on examination, only to refer to the nature of their authorship—to the fact that it is God who is their author—and do not refer (as the two passages which we have just cited clearly do) to the *mode* or *means by which* God produced them.

If any further confirmation of this view is required, it is supplied by St. Paul, who, as is well known, was an accomplished Hebrew scholar, and who states it as his view of the origin of the universe that ‘the worlds have been *framed by the word of God*.’* To St. Paul’s authority we may with similar force add the authority of St. John :

* Heb. xi. 3.

‘In the beginning was the *Word*. . . . *All things were made by Him*, and without Him was not anything made that was made.’*

These two passages afford an important confirmation by two independent Hebrew scholars of the explanatory interpretation; for, whatever date may be assigned to the Pentateuch, it is certain that those books were written long before the writings of St. Paul and St. John, and each of these passages certainly contains a reference to the first chapter of Genesis.

Now, consider for a moment what these passages amount to, for it is scarcely possible to exaggerate their value. Assuming, as we may safely do, that the two quotations from the Psalms correctly represent David’s understanding of the corresponding passages in the first chapter of Genesis; and further assuming, as we may do with absolute certainty, that the third and fourth quotations correctly represent St. Paul’s and St. John’s understanding of the corresponding passage in Genesis, it is clear that to David, St. Paul and St. John the ‘God made’ did not represent any ‘carpenter-like’ process, for the mode of origin which they each assert altogether precludes any such process. They obviously give to those words no place in the narrative proper, but treat them as mere adjuncts, added by way of explanation or reflection. The authority, therefore, of such Hebrew scholars as David, St. Paul and

* St. John i. 1, 3.

St. John, with all the weight which attaches to such authority, is enlisted on the side of the explanatory interpretation; the constructive interpretation these three writers not only discountenance but preclude.

It may, perhaps, be thought by some that in thus attempting with some degree of elaboration to discredit the constructive and establish the explanatory interpretation we are giving ourselves an unnecessary work of supererogation; that we are raising a spectre in order to lay it; that no one who has taken the trouble to ascertain that the text is capable of suggesting these two alternative interpretations—for the fact is not, perhaps, at first sight very self-evident—would seriously adhere to the constructive interpretation, as opposed to the explanatory. We answer that scientists do both adhere to and attack the constructive interpretation; for what else is the meaning of Mr. Herbert Spencer's 'Carpenter-theory of creation'? Surely by this expression Mr. Spencer and the numerous scientists who follow him mean nothing else than this, that in their view the first chapter of Genesis attributes the formation of the universe and of man (with whom we are now chiefly concerned) to some carpenter-like actions on the part of the Deity, which is to assert what we have here distinguished as the constructive interpretation. We believe that such a doctrine is opposed to the Bible narrative no less than to the teachings of Science, and we, therefore, in company with every

lover of Truth, are interested to the highest degree in showing that it is not the meaning of the text.

Again, it may be asked, What is the real value of this discussion? Even if we succeed in establishing the explanatory, and demolishing the constructive, interpretation, does not the former interpretation, equally with the latter, conflict with Science in asserting that the universe was physically completed in six days, and that man sprang into existence within six days after the first appearance of our planet? We answer, No. The explanatory interpretation, as we understand it, is, we believe, in perfect harmony with the teachings of Science. This assertion, we think, can be fully justified by the concluding considerations on the question of interpretation, which we have now to offer, and which, as it appears to us, not only conclusively establish the explanatory interpretation as the only possible interpretation of the text, but also dispose of the old familiar chronological difficulties of the six days.

When we read in the seventh verse, 'And God made the expanse,' the question naturally arises, 'When did He make it?' The ready reply rushes to our lips, 'On the second day, the day on which the command, Let there be an expanse, was uttered.' But is it certain that this is the right answer? Clearly we are not necessarily committed to it, for the text nowhere states, either expressly

or by necessary implication, that the effect was produced on the same day on which the command was given ; and if, as we are endeavouring to show, the words are added, not as part of the narrative proper, but by way of an independent explanation, there appears to be still less reason why we should of necessity be obliged to adhere to such an interpretation. Is there, then, anything in the context to show that the writer did *not* mean that the expanse was formed on the second day ?

If we turn to the twenty-sixth and twenty-seventh verses, we read as follows :

‘26. And God said, Let us make man in our image, after our likeness. . . . 27. So (Revised Version, ‘and’) God created man in His own image, in the image of God created He him ; *male and female created He them.*’

Here again the form of narrative is similar, and here again we are faced by the same question, ‘When did God create man?’ Are we bound to interpret the twenty-seventh verse as meaning that the events which it relates took place on the sixth day, the day on which the command related in the twenty-sixth verse was uttered ? Fortunately—for the circumstance throws a flood of light upon the true interpretation of the whole chapter—the twenty-seventh verse contains a statement which shows that such an interpretation not only is not obligatory, but is not even tenable ; we refer to the words ‘*male and female created He them.*’ It appears from the twentieth, twenty-first, and twenty-second

verses of the second chapter, that Woman did not come into existence until some time (how long is not stated) after the *seventh* day; hence it is clear that the twenty-seventh verse of the first chapter, so far, at all events, as relates to Woman ('male *and female*'), narrates an event which is represented to have occurred not on, but subsequently to, the sixth day—in fact, that an undefined interval took place between the events of the twenty-sixth verse and the events of the twenty-seventh verse.

But this is not all. When we read on we find that the narrative proper is again resumed. In the second verse of the second chapter the author proceeds to relate what happened on the *seventh* day; so that everything interposed between the twenty-sixth verse of the first chapter and the second verse of the second chapter is *anticipatory*, and is, as it were, *in a parenthesis*. This circumstance alone almost, if not quite, forces the explanatory interpretation upon us; indeed, it affords the key to the interpretation of the whole chapter. The explanatory passages not only form no part of the narrative proper, but are anticipatory, and relate events which were fulfilled subsequently—long subsequently, it may be—to the events related in the narrative proper, namely, the commands pronounced on the six days and the rest on the seventh day.

The same conclusion with reference to the explanatory interpretation, and the dates to which the explanatory passages relate, seems to be forced upon

us by yet further considerations. If we again turn to the twentieth and twenty-first verses, we are once more confronted by the same question, and once more receive a similar reply. We there read :

‘20. And God said, Let the waters bring forth abundantly the moving creature that hath life, and fowl that may fly above the earth in the open expanse of heaven. 21. And God created great whales, and every living creature that moveth, which the waters brought forth abundantly after their kind, and every winged fowl after his kind.’

In the twenty-first verse there is one word which at once arrests attention, and here, again, seems to show that the writer did not mean that the effects mentioned in the twenty-first verse were fulfilled on the fifth day, the day referred to in the twentieth verse, and on which God pronounced the law, ‘Let the waters bring forth.’ Our readers will have fore-stalled us in selecting the word ‘moveth’; it is the present tense of this word which appears to lend some weight to our suggestion. The passage clearly was written at a date long after that at which the writer represents the law to have been pronounced. Here, again, the interval is undefined; but, whatever that interval may have been, the force of the present tense ‘moveth,’ so far as it affects our argument, remains the same, for it refers to the date at which the passage was written, and not to the date at which the law was pronounced. Convert ‘moveth’ into its equivalent ‘is moving,’ and the force of the argument will at once become clear. Bear in mind that the writer’s primary object was

to impress upon his readers the fundamental religious doctrine that God was the author of all the phenomena *which they saw in existence around them*, and that the introductory 'and' may be correctly rendered 'thus,' or 'so,' and the force of the present tense will be readily appreciated.

If to this argument it be objected that the present tense 'moveth' may be used not in the definite but in the indefinite sense, meaning 'every living creature *whose attribute it is to move*,' without conceding the point we reply that, apart altogether from the word 'moveth,' there is yet another consideration which equally forces upon us the same conclusion which we deduced from the present tense of that word. Pass for the moment from the fish to the fowls, and consider the expression 'every winged fowl.' It will be readily admitted that these words mean 'every *individual* fowl,' and not 'every *kind* of fowl,' for not only is this the natural meaning of the expression, but the words 'after his kind,' which immediately follow, fix this as the only possible meaning. 'Every *individual* after his kind' is sense; 'every *kind* after his kind' would be nonsense. Now, this being so, the expression 'every winged fowl' must either mean 'every fowl that was living at the time when the author of Genesis wrote,' if we take 'moveth' in its strictly present sense, as equivalent to 'is moving'; or else, if we treat 'moveth' as an indefinite tense, the expression is wider still, and includes every individual

fowl that had ever lived, as well as those which were alive at the date when the narrative was written. But, whichever interpretation we adopt, it is clear that those which were living at the date when the narrative was written are included, for 'every individual fowl' is a comprehensive expression; 'it is God,' says the writer, 'who is the author of *every one of them.*'

Now, it is clear that it cannot be intended that those which were living at the date when the narrative was written were produced by God on the fifth day; and it is equally clear that it cannot be meant that these particular fowls were produced by some 'carpenter-like' process, for the writer must have had an every-day experience to the contrary. What, then, is the meaning of the twenty-first verse? There seems to be no escape from two inevitable conclusions: first, that the twenty-first verse is simply an explanation of what was the effect of the pronouncing of the law narrated in the twentieth verse—that it is simply an elaborated 'and it was so'; and second, that it is not represented that that law took effect (completely, at all events) on the fifth day, but that, on the contrary, it is represented as still in active operation at the date when the narrative was written. The twenty-first verse is, in fact, an explanatory parenthesis.

When we turn to the description of the sixth day contained in the twenty-fourth and twenty-fifth verses, we find that the same considerations lead

to the same conclusions. These verses are as follows :

‘24. And God said, Let the earth bring forth the living creature after his kind, cattle, and creeping thing, and beast of the earth after his kind : and it was so. 25. And God made the beast of the earth after his kind, and cattle after their kind, and everything that creepeth upon the earth after his kind : and God saw that it was good.’

Here, again, the same arguments apply, but with additional force in consequence of the ‘and it was so’ of the twenty-fourth verse, words which necessarily imply that the command was obeyed, and consequently that the twenty-fifth verse is merely an explanatory adjunct to the twenty-fourth. Thus the present tense ‘creepeth’ gives rise to the same conclusion as that which we based upon the present tense ‘moveth’; the words ‘after his kind’ and ‘after their kind’ once more compel us to the conclusion that the writer is speaking, not of species, but of individuals; and hence we arrive at the same conclusions as before.

Now, we have already pointed out that in the descriptions of the first and third days no question between the constructive and explanatory interpretations arises, for no words are used that could suggest any formative *act*.

‘God said, Let there be light, *and there was light*’; ‘God said, Let the waters be gathered together, *and it was so*’; ‘God said, Let the earth bring forth, . . . *and it was so, And the earth brought forth.*’

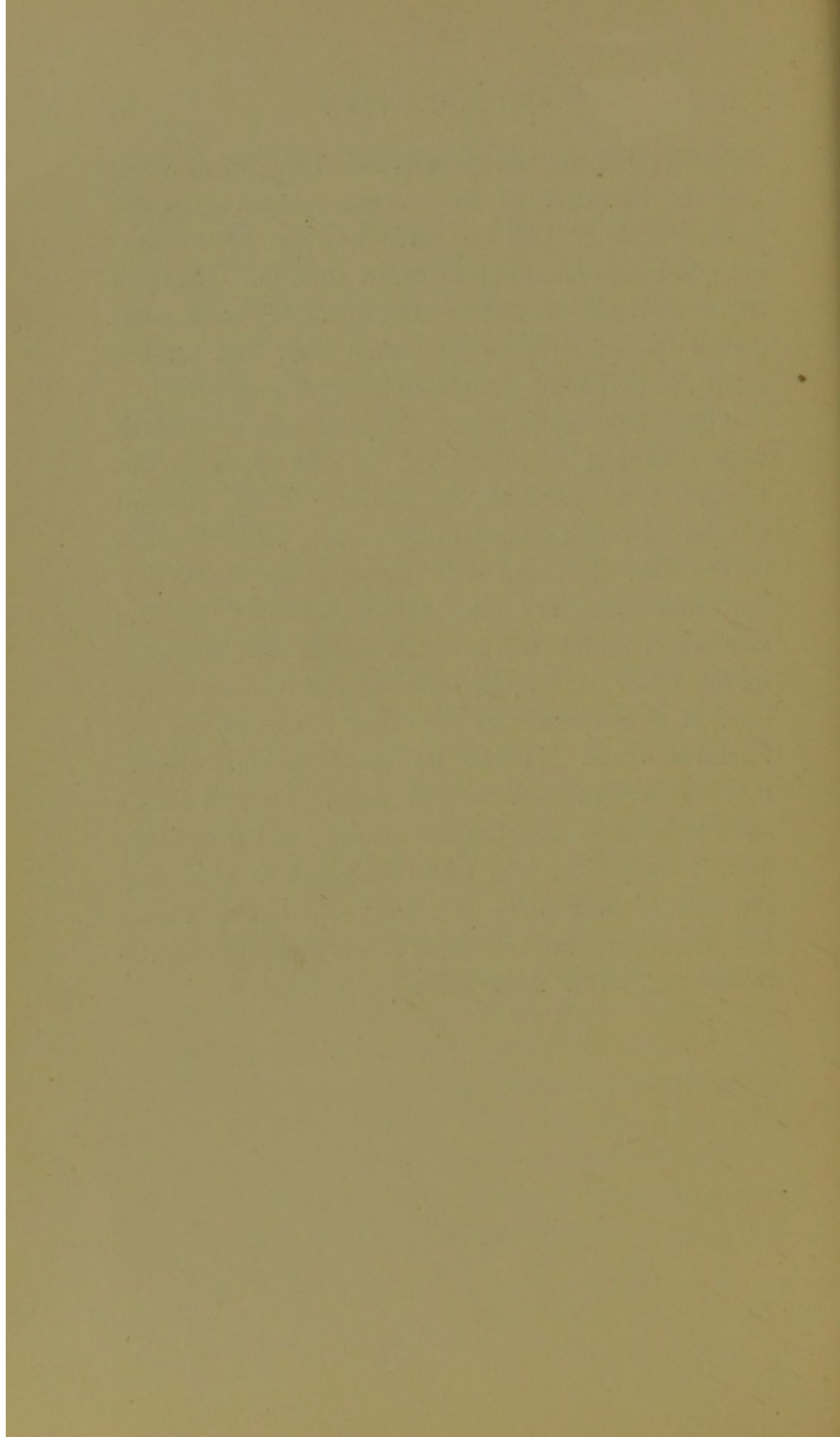
In these cases, as already pointed out, the *word* of

God is clearly represented as the only operative agent.

We have seen, moreover, that the description of the second day is identical with the descriptions of the fifth and sixth days in this respect, namely, that the events recorded in the seventh verse ('And God made the expanse,' etc.) are inserted by way of parenthetical explanation, and not as part of the narrative proper. From these considerations it is fair to assume (in fact it would be unfair to assume the contrary) that the true interpretation of the second and third days (each of which we have found to be essentially identical with the descriptions of the fifth and sixth days in those respects in which the fulness of the narrative permits a comparison), is also, *mutatis mutandis*, essentially identical with the same descriptions in those respects in which the succinctness of the narrative forbids the application of actual test. But we have just seen that many of the events—or, if 'moveth' and 'creepeth' receive their strict present tense, *all* the events—described in the twenty-first and twenty-fifth verses not only may, but must, be interpreted to have happened long after the fifth and sixth days respectively. Hence we are not merely justified in assuming, but are in fairness compelled to conclude, that the events described in the twelfth verse are not represented to have taken place (by which we mean *to have been completed*, however soon the law pronounced may have *commenced to operate*) on the second day; and

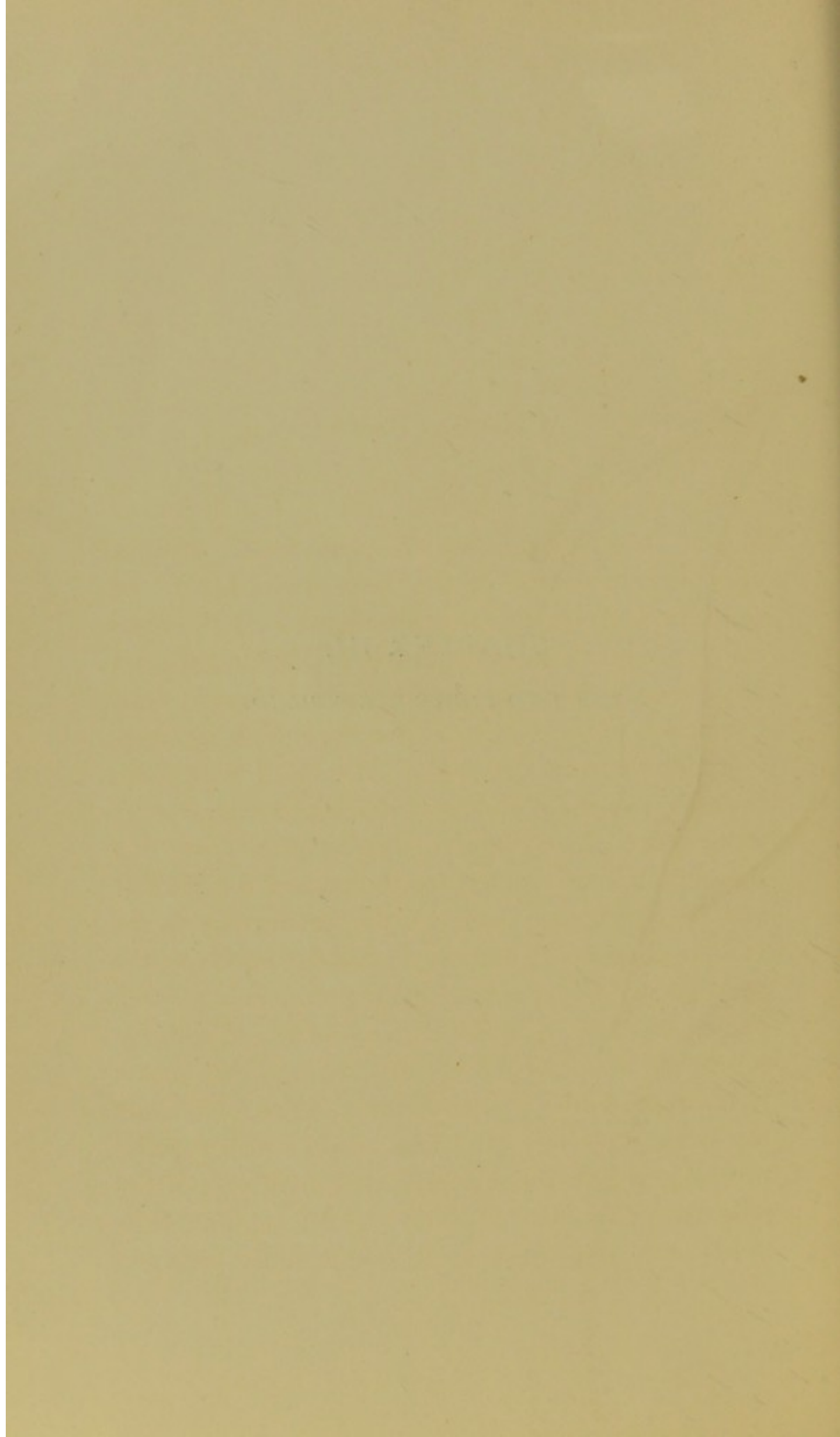
similarly, that the 'and it was so' of the ninth verse, and the narrative of the events recounted in the twelfth verse ('And the earth brought forth grass,' etc.), are not intended to mean that the effects of the commands uttered on the third day were completed immediately on the same day, but, on the contrary, that some undefined interval intervened.

The fourth day only now remains to be considered with reference to this point, for the question obviously does not arise, or is not for our present purpose of much material importance, with reference to the first day; and with regard to the fourth day our conclusions are once more the same, for the arguments which we have advanced with reference to the other days apply with increased force to this day, in consequence of the 'and it was so' of the fifteenth verse. Hence we conclude once more, that the sixteenth, seventeenth, and eighteenth verses are explanatory, and (by the analogy of the twenty-first, twenty-fifth, and twenty-seventh verses) that the events mentioned in these explanatory verses are not represented to have been completed on the fourth day, but at some subsequent date.



CHAPTER III.

THE TWO VIEWS RECONCILED



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WHAT, then (to sum up the somewhat elaborate argument contained in the last chapter), are our conclusions as to the narrative contained in verses three to twenty-seven inclusive of the first chapter of Genesis? We have found that the history of the Formation of the Universe described in these verses is divided into six days; that on each of those days God is represented to have pronounced one or more commands, to have enunciated one or more laws; that the *word* of God, enunciating those laws, was the sole and only operative agent in the production of the various phenomena described; that the effects of the pronouncing of those laws in the production of such phenomena are explained in some detail, and with the repetition characteristic of early writings, but that it is not represented that such effects were fulfilled on the same days on which the respective laws were pronounced; on the contrary, that in respect of the only two days (the fifth and sixth) in which the writer has explained such effects with sufficient

elaboration to give us any clue as to what is his meaning upon this point, it is certain that he means that such was not the case ; for he clearly represents, in the case of Woman, that she was not produced until after an interval, the length of which is not defined ; while, in the case of water-life and land-life, he represents the laws which were pronounced on the fifth and sixth days to have been still in active operation, and responsible for the effects which were still taking place, at the date at which he was writing. From which considerations it appears to us that not only is Mr. Herbert Spencer's 'carpenter-theory of Creation' altogether inconsistent with the Bible narrative, but also that the first chapter of Genesis flatly negatives the commonly-accepted notion that the work of the Formation of the Universe, as we know it, was physically accomplished in six days—was finished, that is, in any other sense than that in which the word 'finished' is used in the first verse of the second chapter :

'Thus' (Revised Version 'And') 'the heavens and the earth were finished, and all the host of them. And on the seventh day God ended His work which He had made ; and He rested on the seventh day from all His work which He had made.'

In the six days God pronounced all the laws upon which the production of phenomena depends ; and as those laws were (as we have seen) the only operative agents of production, the work of producing was clearly complete as soon as the laws had been pronounced. Nothing more remained to be *done*, but

for the Deity to rest and allow the laws, which He had pronounced, time to take effect, and bring into existence the various phenomena which they have produced, and are still producing to-day. How long an interval elapsed between the pronouncing of the laws and the first appearance of the resulting phenomena is not stated in the Bible ; and if Science avers that countless ages must have passed between the first appearance of Light and the first appearances of vegetable and animal life on our planet, she tells us nothing that is contradictory to the teaching of the Bible, for the Bible is simply silent on the subject.

It will have been observed that in referring to the fact that the first chapter of Genesis represents all phenomena (apart from Creation) to have been produced by the *word* of God and nothing else, we have for 'word' occasionally substituted the term 'law.'

In doing this we have not been arbitrarily borrowing the terminology of Science. The Bible itself lends a special and somewhat curious sanction to the employment of this term.

The opening words of St. John's Gospel (which we have already cited) are familiar to all :

'In the beginning was the Word, and the Word was with God, and the Word was God. The same was in the beginning with God. All things were made by Him, and without Him was not anything made that was made.'

In this passage it should be noted that the word

which is translated 'Word,' is in the original Λόγος (Logos). Now, it is not, perhaps, very clear from the passage, as it stands alone, what is the exact meaning of this somewhat strange term. St. John has, however, in another passage, explained his meaning clearly. In Revelation iii. 14 he speaks of

'the Amen . . . the beginning of the creation of God.'

Now, if we compare these two passages together, we shall find that they exactly correspond; though clothed in slightly different language, the meaning is in either case identical, and in either passage there are four, and only four factors—*beginning, word, God, make**:

In the <i>beginning</i>	was <i>the Word</i>	. . . the Word was with <i>God</i>	. . . all things were <i>made by Him</i>
the <i>beginning</i> . . .	The <i>Amen</i> of <i>God</i>	of the <i>Creation</i>

* It should be noted that we are not here confounding 'create' with 'make.' Hebrew scholars are agreed that 'bara,' which in the first chapter of Genesis is translated 'create,' both in the Authorized and Revised Version, is there used in the strict sense of 'to produce out of nothing'; and that 'asah,' which is translated 'make,' is used in the sense of 'constructing out of some pre-existing material.' The word κτίσις (Ctisis), which in Rev. iii. 14 is translated 'creation,' does not appear ever to be used in the strict sense of a 'producing out of nothing.' κτίζω (Ctizo), the verb from which κτίσις is derived, is never used in that sense, but means 'to *people*' a country, 'to *build*' a city, 'to *plant*' a grove, etc. κτίσις

Hence it appears that 'the Word' in the former passage corresponds with, and is to be explained by, the 'Amen' in the latter. Now 'Amen' is a Hebraic word, meaning '*So be it!*' '*Let it be!*' Hence the two passages taken together mean that all things were made by the Word, which Word was in the form of a command—a '*Let it be!*' This statement (which, as we have already pointed out, strongly confirms our 'explanatory interpretation') is obviously in exact accordance with the first chapter of Genesis, which in every single case represents the operative word of God to have been in the form of a command, or 'Amen': ('*Let there be light! Let the Earth bring forth! Let us make man!*'). It is also in exact accordance with the teachings of Modern Science.

In order to justify this last assertion we must consider for a moment the scientific view of the question. It is a trite remark that the one aim and object of Science is to reduce all phenomena into terms of Law. Wherever she lays her orderly hand, this is her undeviating method. Everywhere with cease-

would therefore be more correctly translated 'making,' or 'founding'; and if 'creation' can be accepted as a translation, it must only be taken in a loose sense as equivalent to 'making,' for which substantive (in the abstract sense) there is, indeed, no convenient synonym in the English language. It was, doubtless, this poverty of the language which induced the translators to accept the inexact translation, 'creation.' Had the word occurred in the verb form, it would no doubt have been rendered 'found,' or 'make,' in preference to 'create.'

less toil she arranges, orders, classifies; and it is by this process that she is slowly but surely unravelling a portion of the tangled web which veils the mysteries of the Universe. That in pursuing this method Science has lighted upon a fundamental truth cannot be doubted. Experience shows that in whatever direction her researches extend, whether she examines the phenomena of to-day or peers into the darkness of the past or future, by pursuing this method, she comes—or seems to come—at last upon a something which remains fixed amidst all that is fleeting, unaltered amidst all that is changing, a rock upon which is built the perishable fabric of existence. This ultimate basis of all phenomena Science terms ‘Law,’ and she attributes to Law a reverence little short of idolatry. Law, in the eyes of Science, is the supreme and universal Factor, the final goal of every inquiry, the ultimate of every analysis. Law, in fact, is to Science what (according to St. John) the *Λόγος* is to Religion.

Now, the word ‘Law’ is derived from the English word ‘Lay,’ the primary idea of Law being that which is laid in order, or laid down as a command; and ‘Lay’ is the same word as the German ‘Legen,’ and the Greek *Λέγειν* (Legein); and *Λέγειν* again stands to *Λόγος* in the same relation as that in which ‘Lay’ stands to ‘Law’—the two words are, in fact, philologically identical. Hence we find that *Λόγος* is philologically the same word as ‘Law.’

Now, the coincidence here is well worth marking.

Science traces all phenomena back to Law ; Religion traces all phenomena back to Λόγος ; and Law and Λόγος are philologically one and the same word.

We do not suggest that in the passage which we have just cited from St. John's Gospel the term 'Law,' although the philological equivalent of Λόγος, would afford an adequate translation of that term. The Λόγος, as there used, may, and doubtless does, connote much that is excluded from the narrower meaning to which we have now confined our word 'Law'; but it can scarcely be disputed that its philological relationship justifies the conclusion that that meaning is included among others, especially when we interpret it by the light of St. John's own explanation of it, as equivalent to an 'Amen,' and further compare this explanation with the several 'Amens' narrated in the first chapter of Genesis.

We see, then, that man, according to the Bible, is the product not of a mechanical, carpenter-like process, but of Law. What is that Law? The Bible gives it no name; but the facts revealed by the Bible exactly tally with the Law which Science calls Evolution. Space does not permit us to point out here the many and exact points of coincidence; and we must therefore for the present content ourselves with remarking that there is nothing in the first chapter of Genesis inconsistent with the law of

Evolution, which, indeed, is all that our present argument requires.

But in stating that man is, according to the Bible, the product of Law, we have given only one half of the picture. Indeed, that statement is apparently in conflict with our definition of man, '*created* in the image of God.' The truth is that that definition, though sufficient for the immediate purpose for which we cited it, was in reality but a part of the Bible definition. Fully stated, the Bible definition is as follows: '*made and created* in the image of God.' In these terms Religion defines 'man,' and in so doing commits herself to the apparently contradictory statements that man, in his inception, was both *made** and *created*† — both 'made out of something,' and 'made out of nothing.' Now, this apparent self-contradiction, so far from being a discrepancy, is in reality (to borrow the language of Mr. Laing) a most 'wonderful anticipation of the discoveries of Science.' To Science, therefore, we will appeal for an explanation of the apparent discrepancy.

The collapse of the theory of 'Spontaneous Generation'—so far, at all events, as experimental proof is concerned—has left the Evolutionist face to face with at least two mysterious and inexplicable blanks in his theory of Evolution. As Mr. Russell Wallace has pointed out, the development of the

* Gen. i. 26 ; ii. 7.

† Gen. i. 27.

organic world is marked by successive stages, each one of which is separated from its predecessor by a barrier which can only have been originally crossed by the introduction from without of some new cause or power. The first stage is the passage from the Inorganic to the Organic—from the crystal to the vegetable—when the new power which Mr. Wallace terms *vitality* was first introduced. The next stage is the change from the vegetable to the animal, which is marked by the introduction for the first time of *consciousness*.* To these two stages of Science, Religion adds a third. As Professor Drummond, in his 'Natural Law in the Spiritual World,' has finely pointed out, Christ draws between the Natural Man and the Spiritual Man the same fundamental distinction as that which Science draws between the Inorganic and the Organic; here again, according to Religion, is an impassable gulf, only to be spanned by the introduction from without of a new attribute—the attribute of spirituality. Now, these three barriers are all clearly indicated in the first chapter of Genesis; they form, in fact, the fundamental framework of the Bible Cosmogony. The author of Genesis, with an exact Scientific accuracy, groups the phenomena with which he deals into a series of successive Stages; and he marks the barriers by which those Stages are

* We omit Mr. Wallace's third stage, as many scientists may be disposed to dispute it.

separated from each other by dividing lines which exactly tally with the classification of Science.

We pause not here to dwell upon the Scientific prescience which is here displayed, but pass on to consider the question—as real and practical to Science as it is to Religion—How were these several dividing barriers originally crossed? To this question Science is unable even to suggest an answer. That the barriers exist as barriers now, impassable from within, and yet that they must at some period have been crossed for the first time, she is fain to admit; but the *how* she is forced to confess lies hidden in inexplicable mystery.

But when from Science we turn to Religion, we at once receive a candid and highly-characteristic answer. Of the nature of the first passage from the Inorganic to the Organic Religion is silent; but the gulf between vegetable and animal—between *vitality* and *consciousness*—and again the gulf between animal and man—between the *conscious* and the *spiritual*—was, she declares, in either case, spanned in the first instance by means of an act of *creation*. Now, in either of these two cases, the word *created* necessarily implies the introduction of something new, the addition of some fresh attribute which did not till then exist. What, then, was this new attribute which first came into existence with the production of the ‘moving creature,’ and distinguished it from all previously existing beings? And what again was the still newer creation which first came into existence

with man, and similarly distinguished him from the lower animals? On seeking an answer to these two questions, it becomes clear that in either case the subject of the act of Creation was not the material part of the new organism; for as we have already seen,* these are represented to have been not *created*, but *formed* out of a then already existing material. And, further, as regards man, it is clear that in his case the subject of the act of creation was not his *conscious animal life*, for the text represents that this was at the date of man's creation already existent, and was the subject not of creation, but of *inspiration*.†

These considerations almost force upon us the inference that the new attributes represented by the Bible to have been introduced by the two acts of creation referred to were the two distinguishing characteristics already alluded to—namely, in the case of the animal kingdom, *consciousness*; and in the case of Man, *spirituality*.

The reasonableness of this conclusion will be seen at a glance, if, in the light of the foregoing remarks, we tabulate the characteristic features which the Bible attributes to each of the several classes into which it divides the Cosmos in their successive order of production, as follows:

* See page 35.

† Gen. ii. 7.

Inorganic World	Organic World		
The Earth	Vegetable Kingdom	Animal Kingdom { Inhabitants of Inhabitants Water and Air of Land }	Man
Material Form	Material Form Vitality	Material Form Vitality Consciousness (Creation)	Material Form Vitality Consciousness Spirituality (Creation)

Attributes

This inference is rendered still more probable when we further consider the expression 'in the image of God.' As the Great Author of Christianity has Himself defined God as 'a Spirit,' and has further given us this negative definition of a Spirit—'a Spirit hath not flesh and bones'—it follows, almost as a necessity, that the part of man which was the subject of this act of Creation must have been that *spiritual* part by which the Bible distinguishes Man from the lower animals.* Thus it appears that the Bible endorses the views advanced by such authorities as Mr. Mivart and Mr. Russell Wallace, that man's material and physical parts are the product of the Law of Evolution; whilst his spiritual part (at all events, in its inception) was the product of a process described as Creation.

This, then, as we read the first two chapters of Genesis, is the account which Religion gives of the origin of man: That God, in His purpose of creating a spiritual man, caused, by the operation of Law (*Λόγος*), which Law Science calls 'Evolution,' animal

* From the same considerations it seems to follow that that part of man which was *made*, being 'in the image of God' and 'after God's likeness,' must have been an immaterial part. And it may be argued, not without plausibility, that a distinction is drawn between the four parts of man which were respectively *formed*, *inspired*, *made*, and *created*, terms which correspond respectively to his *body*, his *animal life*, his *reasoning powers*, and his *spirituality*, the last two of which, while distinguishing him from the lower animals, constitute his points of resemblance to God.

life to develop from lowly and humble forms up to something higher than the ape—something, we may add, higher than Neolithic man ; that in the course of this Evolution there came at length a time when this being became fitted, by virtue of his physical and intellectual proficiency, to receive and possess this attribute of spirituality ; that when this point of development was attained, and not till then, God, by a process which is described as Creation, conferred this new and transcendent gift upon a single member of the race, who may be presumed to have been the first member who attained to the required standard of physical and mental perfection. Until this point was reached, and until this new attribute had been conferred, whatever this being might be from other points of view, from the point of view of Religion he was not man ; for he had not been ‘created in the image of God’—he had not become spiritual.

We conclude, therefore, that the distinction which the Bible draws between man and not-man is based upon the possession of an attribute which does not perish—the attribute of spirituality ; and when Religion states that this distinctive feature was first impressed upon man not more than six thousand years ago, she is making a statement which never has been, and never can be, disproved by Science ; for of this feature Science professedly knows nothing. Thus the assertion that the Bible conflicts with the Scientific discoveries of Neolithic and Palæolithic

man cannot be for a moment sustained ; all that Religion does do in relation to those prehistoric beings is to deny to them the possession of that spiritual attribute which she claims as the essential basis of *her* classification of man.

Before closing these pages we must advert for a few moments to an objection which may possibly be advanced to the foregoing argument.

It may perhaps be objected that the argument assumes that all existing human beings are the descendants of a single pair of individuals, who lived not more than six thousand years ago ; such a space of time, it may be urged, is wholly insufficient to account for the development of the wide variations which are found in the numerous races of mankind in existence at the present day.

Before attempting to answer this objection we would make a few preliminary observations with reference to the considerations upon which it is based.

On *à priori* grounds it was, perhaps, not improbable that Science would exhibit a tendency to underestimate the probable effects of such a period as sixty centuries in the production of even wide variations. To a palæontologist, accustomed to measure years by millions,* a period of six thousand

* At the British Museum is a slab of sandstone from one of the oldest formations ; this, according to Mr. Laing, 'was probably deposited *more than a hundred million years ago.*'

years may seem of little account ; yet it is, after all, a long time ; and it is indisputable that vast changes may, and frequently do, take place in a hundred, nay, in fifty or even twenty years. Under favourable conditions of environment evolution works with great rapidity. Twenty or thirty years, according to Mr. Darwin, are sufficient to effect 'an astonishing improvement in many florists' flowers' without any variation of environment, and in circumstances in which the only precaution taken by the florist is to pull up the 'rogues,' so as to ensure not breeding from his worst specimens. Fifty years' unconscious selection in the case of two flocks of Leicester sheep, purely bred, produced such effects that at the end of the period the sheep of either flock 'had the appearance of being quite different varieties.' If, then, in such cases, without any modifying influence derived from differences of climate, or from variations of food, temperature, or habits of life, twenty or fifty years' unconscious selection could, unaided, produce such marked changes of structure, who can say what modifications would be effected by five or six thousand years' exposure to differences of climate (with resulting differences of mode of life, feelings, and ideas) as wide as, say, those of Iceland and China ?

In one of the most delightful of his odes Horace playfully protests the constancy of his affection by asserting that it was proof even against the influences of scenery or climate :

‘Pone me pigris ubi nulla campis
Arbor æstiva recreatur aura,
Quod latus mundi nebulæ malusque
Juppiter urget ;
Pone sub curru nimium propinqui
Solis, in terra domibus negata ;
Dulce ridentem Lalagen amabo,
Dulce loquentem.’*

Such an authority cannot, perhaps, be seriously cited in support of a scientific, still less of a theological, proposition ; nevertheless, it is true to Science, and therefore to Religion, to the extent at least that it recognises something of the enormous influence which Environment exercises upon Organism. Science carries the principle further still, and extends to species what the poet treated as individual. Mr. Herbert Spencer, in his essay on ‘Personal Beauty,’ has conclusively shown how vitally feelings and ideas (which are, of course, largely dependent upon environment) influence expression ; and further, how expression, having a natural tendency, under the influence of heredity, to become fixed, ultimately plays an active part in the formation both of the

*‘Place me where on the ice-bound plain
No tree is cheered by summer breezes,
Where Jove descends in sleety rain,
Or sullen freezes ;

‘Place me where none can live for heat,
‘Neath Phœbus’ very chariot plant me,
That smile so sweet, that voice so sweet,
Shall still enchant me.’

HORACE, ‘Odes,’ i. 22 ; Conington’s Translation.

muscular and osseous structures of the head and face. His arguments in support of this position he sums up in the pregnant formula, 'Expression is feature in the making.'

In view of these considerations, and recollecting that the effects of the several influences are cumulative, it seems scarcely possible to overestimate the variations, mental and physical, which five or six thousand years might suffice to produce. The infancy of species, like the infancy of individuals, is probably characterized by an extreme plasticity. Imagine, then, two plastic races subjected to the wide variations of environment which our planet affords ; the one scorched by the suns of Arabia, the other pent in Siberian snows. Add to these influences the effect of a rigid in-breeding, ensured throughout the inhabited globe by the interposition of mountains, seas, and oceans, not to mention the still closer restrictions imposed at an early date by the sanctions of national and tribal prejudice. Add further the differences in the modes and habits of life, and consequently of feelings and ideas, which must necessarily accompany vast differences of country and climate—differences in opportunities for action, both mental and physical, in the necessity for exertion in the pursuit of food or escape from enemies, and, later, in the incentives to scientific or artistic effort—and then say whether six thousand years might not suffice to account for the number and extent of the variations which now distinguish

the several families of the human race, from the Englishman to the Chinese, from the Laplander to the Hottentot.

But we shall doubtless be told that such *à priori* considerations are beside the mark ; that history is against us ; that, to borrow the words of Mr. Laing, 'the negro existed, with all his present characteristics, more than five thousand years ago, and has not varied perceptibly during that period.' Well, even if we accept this statement as fact—and the mists of five thousand years preclude anything like historic certainty for an assertion so particular—still, we submit that the Bible narrative stands in no way impugned.

The truth is that Religion is not careful to answer Science in this matter, for the supposed objection does not present to her any real difficulty. No refutation is in fact necessary. For is she not here entitled to set up the plea known to lawyers as 'Confession and Avoidance' ? The objection assumes that all existing human beings are represented by the Bible to be the lineal descendants of Adam. But does the Bible really commit us to any such proposition ? Spiritual life, it should be remembered, is one thing ; the faculty of acquiring or possessing such a life is quite another. The first chapter of Genesis, as we have endeavoured to show, draws a radical distinction between these two. The life itself is there represented to have been in its inception the product of an act of creation ; the

faculty to receive and possess that life is, on the contrary, represented to have been acquired by the law of Evolution. But if this be so, then it would almost necessarily follow that every member of the human race (using that term in the scientific sense) would naturally, by the process of Evolution, and irrespectively of whether or no he were lineally descended from Adam, acquire the *faculty for possessing* spiritual life as soon as he should have evolved up to the required standard of physical and intellectual proficiency; and direct descent from Adam would, therefore, appear to be in no way necessary for the acquisition of this faculty. If we choose to class a being so endowed as 'man,' we are at liberty, even from the theological point of view, to do so, provided that we remember that such a being has fulfilled only one of the two conditions connoted by Religion's two-fold definition of man, '*made and created* in the image of God'; and that from the point of view of Religion he is not, strictly speaking, entitled to be classed as 'man' until he has also fulfilled the second of those conditions—the acquisition of the spiritual life itself.

Now, we are clearly committed to the admission that every being possessed of this spiritual life is Adam's *spiritual* descendant. But does it necessarily follow that he must also be his *physical* descendant? Why should the spiritual element in man be transmissible only—or at all—by physical means of propagation? Do not both Science and

Theology alike point to the opposite conclusion? 'That which is born of the flesh is flesh, and *that which is born of the spirit* is spirit.' All that we have endeavoured to show with reference to the origin of the spiritual life is that the Bible represents this to have been *in its inception* the product of creation. But when once it had come into existence (even in a single individual or pair of individuals) then immediately the problem changes altogether. However inexplicable the origin of life may be, its mode of reproduction is tolerably well understood. Here the only required factors are a life-containing germ in contact with a suitable environment—a favourable soil, a genial atmosphere, with proper conditions of light, heat, and moisture. Given these, and Nature will do the rest without any appeal to the miraculous. And if so, may—or, rather, must—it not be that spiritual life is capable of being propagated by spiritual contact alone? That this is the Bible doctrine can scarcely be disputed. 'For in Christ Jesus I have begotten you through the Gospel,' 'Onesimus, whom I have begotten in my bonds,' 'My little children, of whom I travail in birth again until Christ be formed in you,' are all expressions which relate to the transmission not of physical, but of spiritual life, and they propound a doctrine which reappears under a slight change of metaphor in the well-known passage, 'I have planted, Apollos watered, but God gave the increase.'

Were it necessary for our argument, it might, perhaps, be successfully maintained that the Bible itself gives positive support to the conclusion that there have been human beings *not* lineally descended from Adam, and not possessing even the faculty for acquiring spiritual life. For how else, it may be asked, is it possible to justify the apparently harsh and intolerant treatment so constantly enjoined upon the Israelites in their relations with the 'heathen who knew not God'? Between 'God's people,' who prided themselves on their direct descent from Adam, and the surrounding 'nations' the Bible seems to indicate a difference of kind rather than of degree. The two are separated by a gulf forbidden to be crossed by intermarriage, and widened by a policy, persistently enjoined towards the inferior race, not of conversion, but of extermination.

So, too, the genealogy of Christ contained in the third chapter of St. Luke's Gospel, and which traces His lineage direct to Adam, may, perhaps, be thought to lend further support to the same conclusion. For what point could there be in emphasizing such a pedigree except on the assumption that it indicated a source of origin not shared by all? It is as if, in vindicating the *humanity* of the 'Son of Man' by tracing His genealogy back to Adam, Religion were distinguishing Him in this respect from beings possessed of another and *less human* lineage.

But any such speculations, however interesting, are, for practical purposes, unnecessary to our argument.

All other considerations apart, the supposed objection stands, as we submit, self-condemned; for it is vitiated by the same fallacy which underlies Mr. Laing's main argument as to the antiquity of man—a fallacy founded upon a total misconception of the nature of those characteristics on the basis of which Religion formulates her classification of man.

In the explanation which we have thus endeavoured to propound of what has often been regarded as a glaring discrepancy between Science and Religion, is there anything fanciful or unreal? Surely not. With a different definition of man, and a different *ratio dividendi*, it was almost impossible—it was certainly infinitely improbable—that Science would draw her dividing line at the same point as Religion. And it is a significant fact that Science has drawn her line at a lower and not a higher point than Religion. All Evolution teaches that the lowly forms of life come before the higher, the simple precede the more complex. And if spirituality really is a far higher form of life than mere intellectuality, must it not follow as a necessary corollary that the standard which Science sets up as the distinguishing mark of man would, in the course of Evolution, be reached long before that infinitely higher standard which is proposed by Religion? Probably few will be disposed to dispute the proposition that the most valuable, as it is the most subtle, trait in the human character is Affection.

Immeasurable as is the value of Intellect, that of Affection stands higher still; for it is the concentrating power which binds together the fabric of Society. That primary and elemental manifestation of Force which is known as 'molecular affinity' in the molecule, and as 'gravitation' in the mass, is the concentrating force of the material Universe. Eliminate this single influence, and worlds and systems instantly dissolve into chaos. Such a force in the social system is affection, equally elemental and equally essential. Eliminate this single bond, and Society melts into social chaos. Those only who have realized the transcendent value of this unpretentious but ubiquitous influence can appreciate in any degree how profound is the truth which Religion enunciates when she claims this force in its perfection as the essential attribute of God in her central doctrine that 'God is love.' This is the recognition of the highest of all. Thought, knowledge, speech, writing, art, science, intellectual civilization, all the brightest ornaments of our physical existence, 'if they have not charity, are nothing.' What, then, must be the perfection of those organs which are to enable man to correspond with a Being whose essential attribute is the quintessence of Love? If the physical eye, with its exquisite mechanism for receiving and transmitting the tiny pulsations of ethereal waves, is an organ of almost perfect function and design, how infinitely more delicate and responsive must be

that spiritual eye, which, vibrating to the rays of the spiritual light of Love, will in time enable man to see God ! And if so, is there not a strangely scientific consistency in the dates which Science and Religion assign to the first appearance of those two different beings whom they respectively call Man ?

Test the case for a moment by reversing the position. Suppose that Religion had claimed for her Spiritual Man an antiquity of a million years, and that Science, in the course of her researches, had suddenly lighted upon some undoubted proof that Rational Man had not existed for more than six thousand years, would not such a proof have been fatal to the claim of Theology ? Mr. Herbert Spencer states it to be a 'biological law that the higher the organisms the longer they take to evolve.' This is true both of individuals and of species. How, then, could that which professes to be higher and more complex claim to have preceded the simpler and lower ? Nay, if this law holds good, we must go further still, and say that her very claim to superiority precludes Religion from asserting even an equal antiquity. It is clear that in the history of our planet, the Inorganic (the lower) must have preceded the Organic (the higher) ; and on the same grounds we cannot but recognise a corresponding relationship between the Rational and the Spiritual. For the two cases are precisely analogous. They are alike in the differences of complexity which they respectively exhibit ; as the

Inorganic is lower than the Organic, so is the Rational lower than the Spiritual. They are alike also in respect of that mysterious dividing gulf which is present in either case—that gulf which, whatever may have been the case under different chemical and biological conditions in past ages, Science admits does now exist between the Inorganic and the Organic; that gulf by which Religion also severs the Intellectual from the Spiritual, when she introduces the higher kingdom as the product of an act of *creation*. Hence we are compelled to seek for Spiritual Man a later date of origin than for Rational Man. To do otherwise would be to contradict a known law. And it is not a little remarkable that Religion, in fixing, as she has done, with that fearless and uncompromising candour which is everywhere her grand characteristic, the date of the first appearance of Spiritual Man, should, unknown to Science, unknown to herself, have assigned a date which, when tested by Geology, is found to precisely satisfy the requirements of Evolution.

It is unnecessary here to dwell at any length on the second of the two objections which we mentioned in an early part of this work; for the considerations which apply to the main proposition under discussion apply also to it with equal force. On *à priori* grounds, so far from being impossible, it was highly probable that rationality would exist long and evolve to a high degree of proficiency before spirituality appeared. And in support of this probability Mr.

Laing himself supplies us with something very like actual proof when he states that the lowest known forms of man even at the present day, 'such as the Australians, the Bushmen, the Mincopies and the Fuegians . . . cannot be said to have any Religion at all.' For what does this prove? Surely, if it proves anything, it tends to confirm the Bible chronology. For does it not show that man may exist for many ages, and advance far along the paths of intellect and civilization, before attaining any perception of—may we add, any capacity for—God? And what is this but to give us an actual demonstration of a state of things which the voices of Religion and Science unite in proclaiming, that Rational Man preceded—aye, long preceded—Spiritual Man? Is it not to remove our contention from the region of speculation to the region of fact? Is it not to state in terms of actual history a proposition which Mr. Laing affects to deride as an impossible myth?

In closing these pages we would remind our readers that we are under no obligation either to define or prove any of the Bible terms or statements. The question which we have thus endeavoured to answer is not 'Is the Bible inspired?' but 'Can it be inspired?' Religion is accused of an inconsistency with Science, and we are simply concerned to show that the Bible statements *as they stand*, whether we accept them as true or reject them as false, are not in conflict with the facts of Science.

To such an attack this is clearly the only mode of defence open. Extraneous evidence of the Bible truth, however much it might tend to support Theological doctrines, or to discredit Scientific theories, would obviously be no answer to the present challenge, where the accuracy of the alleged Scientific facts is not disputed. Here in the very nature of things we are confined to internal evidence; and hence it is that no objection can be taken to our defence on the ground that we have not defined 'spirit,' nor *proved* that man is spiritual. For the question before us is not 'What are the *proved facts* of Religion?' but 'How far do the *allegations* of the Bible tally with the discoveries of Science?'

But in endeavouring to answer this question we have simultaneously and unavoidably transcended the negative limits of defence. The mere fact of coincidence (if established) between the allegations of Religion and the teachings of Science, has a positive value of its own. If in a Carpenter's workshop we should discover two rough chips of wood, dissimilar in shape, and having undesignedly irregular outlines, and if, on placing them side by side, we should discover that they precisely tallied, that every prominence on the one was answered by a corresponding indent on the other, so that, when placed together, they exactly fitted, it would be difficult to persuade us that they were not chips from the same block. And if, on comparing Religion with Science, we should find that their outlines, so

far as they are known to us, exactly correspond, so that every point of contact is a point of coincidence, it would be difficult, while claiming for Science that she is a fragment from the rock of Truth, to attribute to Religion a less close relationship with the same infallible source. Possibly, it cannot yet be claimed that the chain of established coincidences is complete; but it should be remembered that the establishment of every fresh point of identity not only adds to the completeness of the chain, but also lends additional strength to the links already established. Such a fresh link appears to be furnished by a comparison of the chronologies of Science and Religion in connection with the origin of man. The later date assigned by Religion, so far from conflicting, will on the Evolutionist's theory be in exact harmony with the earlier date of Science, if only there is a corresponding superiority in the attributes which Religion *claims* for man over those alleged by Science. Tried by this test the harmony is beyond all dispute. Compare for a moment the attributes of man as understood by Science with the attributes of man as understood by Religion. The one material, the other spiritual; the one temporal, the other eternal; the one finite, the other infinite; the one human, the other divine. We are content to leave it to those Evolutionists who have realized how vast is the professed superiority of the Spiritual over the Intellectual, to decide whether the voices of Science and Religion do not

unite in propounding a statement in exact accordance with the known laws of Evolution, when they concur in proclaiming that Intellectual Man came into existence not years, nor centuries, but long ages before Spiritual Man. For not arbitrarily, but by duly proportioned distance, does the lower precede the higher, the simpler the more complex.

