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Blending lights; or, The  
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J. M. Stevenson



# BLENDING LIGHTS;

OR,

*THE RELATIONS OF NATURAL SCIENCE,  
ARCHÆOLOGY, AND HISTORY,  
TO THE BIBLE.*

BY REV. WILLIAM FRASER, LL. D.

REVISED EDITION.

“Prove all things; hold fast that which is good.” 1 Thes. 5:21



AMERICAN TRACT SOCIETY,  
150 NASSAU STREET, NEW YORK.

THIRD EDITION, revised for the AMERICAN TRACT SOCIETY by the  
Author, and published by a special arrangement with him.

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# BLENDING LIGHTS.

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## CHAPTER I.

### TENDENCIES TO ERROR—SUBJECTS TO BE STUDIED—PRACTICAL SUGGESTIONS.

Let no one, upon a weak conceit of sobriety or an ill-applied moderation, think or maintain that a man can search too far, or be too well studied in the book of God's Word, or in the book of God's Works—divinity or philosophy—but rather let men endeavor an endless progress or proficiency in both; only let them beware that they apply both to charity and not to arrogance; to use, and not to ostentation; and, again, that they do not mingle or confound these learnings together.—BACON.

MANY have lost their early faith in the Bible, and are following its guidance with faltering footstep. Between them and hitherto accepted truths, the sciences have been placing apparently insurmountable obstacles. The trustful simplicity with which they once read the sacred Record has almost perished. Inferences by the man of science, conflicting with interpretations of Scripture by the theologian, have rudely shaken their most cherished convictions. They are not infidels, they are not skeptics, for doubt is distasteful to them; they long for more definite expositions and a firmer faith.

In the midst of such discussions as are at present keenly sustained, their perplexity is not unnatural, their most anxiously-sustained investigations have hitherto only multiplied difficulties, and a sense of responsibility alone constrains them to linger over conclusions from which their judgment recoils. This hesitancy of belief may be at the outset disheartening; yet it may be inseparable from that clearness of insight and that force of character, which, in the end, commonly create the stablest convictions, and evoke adequate proof to shield them. To shun or denounce those who cannot acquiesce in what we believe, is inconsistent not only with the lessons of philosophy, but with His example who came to "bear witness to the truth."

What is our duty, with the natural sciences on the one hand appealing so largely to our reason, and the Scriptures on the other hand appealing so constantly to our faith? Obviously, to depreciate neither, but to welcome both the sciences and the Scriptures, to ascertain their harmony, to note their differences, and to accept the treasures of truth which they may bring. Indifference is inexcusable as is excessive zeal, and apathy as antagonism.

The Bible, free to us as are the fields of science, challenges the severest scrutiny. It is the boldest of books, and demands the application of every test. As it is the most comprehensive history in the world, and gives the amplest scope for research, as its earliest records are the oldest in existence, and its latest prophecies shed light far into the future, as it touches depths and reaches

heights which no other book can approach, as it brings into closest connection the visible and invisible, natural law and supernatural influence, the condition of man and the character of God, it is exposed to assaults which no other book can bear.

Systematic and persistent study is required at our hand, that we may estimate aright not only the facts and arguments brought against the Bible, but those also which are adduced in its favor. The task may be arduous, but this price is not too great for the settlement of questions so momentous; and if the solution of some of them may have to be for a season postponed, ours will be the satisfaction which the conscientious improvement of every opportunity invariably fosters.

Different lines of investigation may be profitably followed, but we may suggest the following as exhaustive, or nearly exhaustive, of the most prominent questions which modern research has raised.

As the Bible is confessedly related to the natural sciences, archæology, history, and modern civilization, let it be placed successively in the midst of their facts, and let us see to what extent its statements can bear their light.

There are many questions which none of us can honestly avoid; and while some may remain unsettled, the unbiased review of those solutions which have been already offered, and which have been generally accepted, will be found to confirm Scripture instead of confuting it.

I. *As to Science*.—Have astronomy and geology given evidence for or against the eternity of the visible universe? Has biology determined the origin of life?

whence is it? Have comparative anatomy and physiology, psychology and ethics, established more than one origin for the human race? Are the incidental allusions in Scripture contradicted or confirmed by the more recent discoveries in natural science?

2. *As to Archæology.*—Can the Bible confront prehistoric revelations? Antiquity is pouring increasing light over the oldest records. Ruins, monuments, inscriptions, parchments, have been emitting their wondrous testimonies, parallel with Scripture history. Assyria, Egypt, Palestine, Greece, Rome, in their histories, revolutions, and domestic episodes, have been interwoven with the statements of Scripture as with those of no other book. To what purpose has historic criticism dealt with the sacred page? Is the Bible yielding, or is it growing brighter in the crucible of archæology?

3. *As to Modern History and Civilization.*—By its claim to uplift and bless the human race, the Bible is separated from all other books. It proposes to revolutionize man's moral history here, and to prepare him for a future whose course it in part delineates. Has it failed, or is it failing? Has it been enfeebled by the lapse of ages? Has it become effete amid changes which have given intellect new instruments and reason new spheres? Has it lost its former hold of the human mind, and is it sinking amid the tumult of bitterly conflicting opinions? Has ever tribe been found which it could not raise and enlighten? or has civilization ever outshone, in any land, its intellectual and moral splendor?

4. *As to the Supernatural.*—If the Bible is the book

which it professes to be, and which we hold it is, the ordinary and the extraordinary, the natural and the supernatural, must be associated in its character and history. What is the warrant which men of science adduce for repudiating the supernatural while they accept the natural? and by what reasoning does the Christian apologist attempt to preserve their connection? Is there no valid evidence around us in the contrasts of barbarism and civilization, as well as in the histories of nations in their relation to prophecy? and are there no facts in the strangely revolutionized lives of thousands in the Christian church, which proclaim the singular moral force of the Word of God?

Assuming that many are willing to follow such a course of study as we have sketched, either to remove doubts which may be lingering in their own mind, or to aid some brother in his struggle to win the repose which they have gained, we shall, at the outset, offer some suggestions as to the spirit and the method by which their investigations should be characterized. It is of much importance to know, in the first place, what is, and what is not yet, within our reach.

1. We are not entitled to assume the possibility, in the present state of our knowledge, of demonstrating a perfect agreement between science and Scripture, or rather between the inferences of the philosopher and the interpretations of the theologian. Much remains to be ascertained before that result can be realized. The natural sciences are confessedly incomplete; some of them are only in their infancy, and can teach us little. Many

years may pass before they can be brought into perfect accord with the Bible. As the facts of natural science have not been all ascertained and classified, as its laws have not been all recognized, and as the inferences of to-day may be modified by the discoveries of to-morrow, it is absurd to be demanding immediate evidence of a perfect agreement between Scripture and science. Apparent contradictions are, at the present stage, unavoidable. There must first be an exact and exhaustive examination of all those points at which the Scriptures and the sciences touch each other; for so long as a single fact or a single law remains unknown, some important or essential truth, intimately related to the Bible, may be concealed.

While the natural sciences continue incomplete, natural theology must necessarily have an imperfect foundation. As confessedly dependent on what is incomplete, natural theology can have neither the comprehensiveness nor the definiteness which characterizes supernatural theology, as dependent on what is now complete and unvarying. We cannot force the legitimate yet somewhat incoherent teachings of the one book—the works of God—of which but a few leaves have been separated, scanned, and paged, into perfect harmony with the teachings of the other book—the Word of God—whose revelation of truth has been finished, accredited, and closed.

2. It becomes us to wait patiently, while we work persistently, for the solution of difficulties which may be continuing to press upon us. The experience of the past is an encouragement for the future. The sciences have again and again become their own interpreter, and reject-

ed erroneous inferences. Many examples might be given, but one or two may in the meantime suffice. Human skeletons were found in what seemed old limestone, on the northeast coast of the mainland of Guadeloupe; and after bold attacks on the Bible, which were met by some very weak and irregular defences, it was ascertained that the whole was a mistake—that the limestone was of very recent formation, that the skeletons were of well-known Indian tribes, and agitation ceased. A similar commotion was raised when the supposed imprints of human feet on limestone had been figured and described in the “*American Journal of Science*,” and Christians met strange infidel hypotheses by very feeble assertions, until Dr. Dale Owen proved the imprints to have been sculptured by an Indian tribe. Thereafter, for a season, the scientific inquirer and the theological student prosecuted their respective investigations in peace.

There are important lessons for us in these, and in many similar facts. Christian apologists have often egregiously erred, not only in hastily accepting statements regarding supposed facts, but in admitting the validity of the reasoning which has been eagerly founded on them, and in making a fruitless attempt to twist Scripture into harmony with what science itself has subsequently disowned. Facts ill-observed, and afterwards misstated, have drawn many of our best and most candid students into unnecessary collision with Biblical critics; and, after much heat in controversy, and the waste on both sides of much intellectual energy, the obstacle lying between

them has unexpectedly vanished in the fuller light of science. The evil to be deplored is, that after the errors have disappeared their influence remains. The imprint often lingers long after the counterfeit die has been broken.

3. There is a constant tendency on the part of discoverers to invest new facts with a fictitious interest, and those who are hostile to the Bible eagerly parade them for the discomfiture of Christians. Every fact is to be welcomed, but it is to be treasured only that it may be adjusted to other facts, and become in part the foundation of a new truth. Isolated and unexplained facts have been too often unceremoniously dragged into court to give testimony against some Scripture statement, and have been too easily held sufficient to push aside those accumulated evidences to its truth which history or science, or both, had indisputably established. It is not, indeed, surprising that the faith of many has failed, when they have observed the too ready acquiescence of prominent Christian writers in theories which necessitate the abandonment of some of the impregnable fortresses that have been raised by exact scholarship around those portions of Scripture which had been longest exposed to the fiercest assaults. Were this method common, no permanent foundation could be laid, and progress in any science would be impossible. Is it not absurd to be displacing corner-stones, and disowning, at random, first principles? No system of philosophy, no science—not even mathematical, the exactest and in one sense the most permanent of all the sciences—could have any weight or make

the least progress, if subjected to such changes in both its principles and their applications, as have marked the history of Bible assaults, concessions, and defences. When facts which are utterly inexplicable are presented, we should retain the fact in science and also the relative statement in Scripture, assured that in due time the needed solution will come to harmonize them.

4. To accept or offer apologies for the Bible indicates weakness. It has, of late, become common on the part of those who are alarmed by the temporary triumphs which scientific investigation has given the avowed enemies of the Bible, to demand that its propositions be altogether dissociated from both science and philosophy, on the plea that the Bible was not given to teach either the one or the other. The proposal is plausible, but it is really unnecessary; for although not given to teach physical science, the Bible cannot contradict either its facts or its legitimate inferences. The Word of God cannot be regarded as by any possibility contradicting the lessons of his works. Like every other book, the Bible must bear all the light that can fall on its pages; and it must not only stand the tests of criticism and history, but vindicate all its claims as the "more sure Word of Prophecy." Otherwise, appeals for leniency are profitless. True, in its highest connections, the Bible is unapproachable by other books; it is easily distinguishable from them; yet in its human relations it must submit to all the ordinary appliances of scholarship. No apologies can justify a single error in either its science or its history, and its propositions are obviously inadmissible if they contradict

human reason ; they may be above, but they cannot be opposed to it.

5. Akin to an easy escape from difficulties, through apologies for the Bible, is the tendency to glide into conclusions directly hostile. The prevailing activity of the age is so unfavorable to leisurely investigations, as to facilitate the subtle advances of error. While many writers of the present day are as preëminently gifted, and as distinguished in the different departments of learning, as those of any preceding age, and while their reasonings and their conclusions are borne by the daily or the serial press to every man's door, multitudes think and decide by substitute. They want leisure, and they trust to others. Rapidity of locomotion, the chief physical feature of our time, betokens also its intellectual tendencies. Men read cursorily and decide rapidly. The daily newspaper is making book-study rarer than hitherto. Sustained study is felt in ten thousand instances to be distasteful or difficult. The subtle influence of the daily newspaper is telling on our thoughtfulness. We really seem to be approaching the fulfilment of Lamartine's prediction, "Before this century shall have run out, journalism will be the whole press, the whole of human thought. Thought will not have had time to ripen—to accommodate itself into the form of a book. The book will arrive too late ; the only book possible soon, will be a newspaper."

As one result of this process, truth and error are often imperceptibly commingled. So swift is the transition from one fact and inference to another, that truth

and error, like different colors blent into one by rapid motion, become so much alike, that few can separate them. Thus with every advance of truth, error is wafted forward. The seeds of future tares and wheat are being profusely scattered. It cannot be denied, that while to almost every man's door are daily wafted accurate records of passing history, of the discoveries of science, of the triumphs of art, and of the generalizations of philosophy, the same messengers no less sedulously exhibit, now faintly and now in the strongest light, every difficulty connected with the Bible, both real and imaginary, the boldest objections of historic criticism, the theories of speculative philosophy, the apparent contradictions of science and Scripture, and the saddening conflicts of professing Christians. The constant diffusion of such influences tells in the long run, not only on less active minds, but on the most energetic, and it renders easier of acceptance every erroneous conclusion.

But this incessant activity is a symptom of health. It augurs good. Rightly directed, it may strengthen character while it develops mental power, and gives a more exquisite appreciation of the just and true. But remember that everything depends on this rightness of direction ; and to secure this, unflinching caution is required. The wind and tide which, rightly used, hasten the voyager to his harbor, may, if unheeded, strand him on an unexpected shore ; and so those subtle forces, and those under-currents, which should have aided in guiding us to a satisfying intellectual and moral repose, may, through the thoughtlessness or the indolence that at the outset

disregarded a slight divergence from the truth, almost but not altogether imperceptible, destroy our happiness through the shipwreck and the ultimate abandonment of our Christian faith.

6. Another common tendency in the wrong direction claims attention. It manifests itself in repugnance to controversy or discussion in every form. Many shrink from controversy as unseemly, and seek escape in either solitude or study. While peace is in itself desirable, it is not always attainable. We cannot escape conflict by letting go the Bible; nor can we traverse any of the fields of science without entanglement in the intellectual struggles of disputants whose reasonings have sometimes but little of the calmness of philosophy. Nor is this to be regretted. The repose of meditation is not so bracing as the discipline of occasional contest for the truth.

There are other advantages. The attrition of discussion often reveals and beautifies truths which would otherwise have remained unrecognized. Apathy or silence may shelter error without preserving truth. Intellectual indolence, bad for the world, is still worse for the church. The highest life is demanded by the Bible, and, therefore, also the greatest activity. From intellectual warfare, the sciences and the Scriptures have nothing to lose, but everything to gain. On Christian or skeptic, on prophet true or false, the Bible never enforces silence. It seals no thinker's lip. "The prophet that hath a dream, let him tell a dream; and he that hath my word, let him speak my word faithfully. What is the chaff to the wheat? saith the Lord." Jer. 23:28.

In the field of thought, nothing save the chaff perishes. Lost truths spring up again ; and, beneath their spreading branches, vitiated reasoning, unsound criticism, and erroneous conclusions, ultimately decay as briars beneath the spreading oak.

There are those also who deplore discussion only because it raises questions hostile to the Scriptures, and alarms the weak. This anxiety, though laudable, is fruitless. Vital questions are already discussed on all hands, and in every variety of aspect. There are disadvantages, but they are generally inseparable from the progress of truth. It will be admitted on both sides, that while the extension of exact knowledge contracts the sphere of superstition, it enlarges at the same time the sphere of skepticism. Superstition may be displaced without Christianity becoming its substitute ; there *may* be a high and an attractive civilization, based on science and its applications, which, in acknowledging the intellectual and moral supremacy of the Bible, and nothing more, may for a season destroy credulity, only to give fuller scope to No-Belief, and to evoke ultimately an opposition to the Bible hitherto repressed or unknown. For such results we must be prepared ; they are collateral, not essential or direct. They are, in fact, the price which we pay for our intellectual freedom. We are neither to falter nor hesitate because the increasing light, which is dissipating ignorance and extending the boundaries of truth, is at the same time indirectly opening to Error a wider field for the distribution of her forces, revealing new weapons for her armory, and enabling

her to seize, and for a season to retain, positions hitherto unknown and unassailed. In the history of the physical sciences, and of archæological discovery, Error has often rushed to the battlements of Truth, and, seizing some detached or imaginary facts, has wielded them against the Bible, until the sciences have themselves expelled her and repudiated her reasoning. Such agitation is not to be deplored: it conduces to stability, it evokes more good than evil, and not unfrequently has it happened that the superstition which long benumbed the church, and the infidelity which aroused her, have yielded to the unexpected sway of some Bible truth, when a more definite meaning has been given to some natural law or providential dispensation.

The character of the Bible is misunderstood by those who suppose that its safety lies in keeping it as far as possible from the rigorous investigations and the exact conclusions of science or philosophy. Such a method is indefensible. To pursue truth in one department implies, or should imply, not only a love of truth in every department, but also a resolute purpose to discover and dislodge every error. Which of the sciences, as preserved from controversy, is entitled to cast the first stone at any of the others or their students? "Philosophy and literature," says Lord Kinloch, in an admirable work, "while professing to pursue truth in the composure of unruffled seclusion, and to be desirous of having it elicited by the healthy excitement of friendly debate, will protest against the dishonor of soiling their hands, or disarranging their robes in the turmoil of heated controversy; and least of

all will they consent to be defiled with the mire or exposed to the perils of religious strife. This plea is false in fact, as it is futile in philosophy. It is in fact false: for literary and philosophical controversies have been neither few in number nor wanting in a keen and rancorous spirit. And, admitting that religious contentions have been still more rancorous and embittered, it is only what might reasonably be expected, on account of the higher interests at stake. The plea is, moreover, worthless on philosophical principles: for it eviscerates the distinction between truth and error of all meaning and value. Better not to admit the distinction at all, than, having admitted it in one instance, deny it in another; or, what is worse, depreciate its significance even to thought, and that too in the most important of its applications. All argument and all effort are for ever at an end, unless truth—yea, *all truth*—be precious; so precious, that in the legitimate pursuit of it we may and ought to put forth our utmost strength; and in defence of it, when found, incur the utmost hazard.”\*

It is unworthy of any Christian scientist to be discouraged by apparently insurmountable obstacles. The boldest assertions and the most plausible reasonings need not disturb the Bible student. Difficulties seemingly insuperable have, in the past, suddenly yielded to unexpected discoveries; and every science, we may rest assured, will hereafter gain strength enough and light enough to purify its own temple and be its own interpreter. The past may be held to be prophetic of future

\*“Christian Errors, Infidel Arguments,” p. 97.

solutions ; and the sciences will be found not only correcting the mistakes and the arrogance of many of their students, but rebuking the too hasty concessions of Christian apologists, and either directly or indirectly revealing, at the same time, the impressiveness and the majesty of Scripture truth.

## CHAPTER II.

## THE FIRST CHAPTER OF GENESIS—ITS DISTINGUISHING CHARACTERISTICS AS A HISTORY—ORIGINATION OF MATTER—IMPORT OF “IN THE BEGINNING.”

The archetype of science is the universe, and it is in the disclosure of its successive parts that science advances from step to step; not properly by raising any new architecture of its own, but rather unveiling by degrees an architecture as old as creation. The laborers in philosophy create nothing, but only bring out into exhibition that which was before created.—CHALMERS.

As an historical record, the first chapter of Genesis is without a compeer. It is unapproached. Its first announcements distinguish the Bible from all other books. Its simplicity, its directness of statement, its boldness of conception, its subdued grandeur, are throughout conspicuous. “The historical events described,” says De-litzsch, “contain a rich treasury of speculative thoughts and poetical glory, but they themselves are free from the influence of human invention and human philosophizing.” The record begins where the investigations of natural science cease, and this very peculiarity has drawn upon the Bible the fiercest assaults. Every statement has been in turn sifted, rejected, and vindicated; and one of the fairest tests which at the very outset we can apply, is carefully to compare the Bible account of creation and of the preparation of the earth for man, with those parallel histories by which heathen nations have hitherto been guided.

Reserving for future consideration the mutual relations of its more definite statements, let us therefore at once place this portion of Scripture history side by side with the best accounts which antiquity and modern history can furnish. Their incongruities are so apparent as to be ludicrous. If we carefully examine the Chaldean, the Phœnician, and the Egyptian, as illustrative of ancient cosmogonies, and the varied delineations and beliefs of Northern Europe and India as illustrative of accepted records in more recent times, we cannot fail to recognize the wonderful preëminence of the Bible.

I. HEATHEN HISTORIES OF CREATION COMPARED WITH THE BIBLE RECORD.

1. In the Chaldean myth, the "All" is represented as consisting of darkness and water, filled with monstrous creatures of profound form, and governed by a woman, whose name, Homoroka, signifies ocean. This woman was cut into two halves by Bel, the supreme deity: the one half formed the earth, the other heaven. Bel thereafter cut off his own head, and from the drops of his blood men were formed.

2. In the Phœnician cosmogony, the beginning of the "All" was a dark windy air, a turbid eternal chaos. By the union of the spirit with the "All," or universe, slime was formed, from which every seed of creation was educed. The heavens were made in the form of an egg, from which sprang sun, moon, and stars, and constellations. By the meeting of the earth and the sea, winds arose, with clouds and rain, lightning and thunder. The noise of the tempests aroused sensitive beings, and

henceforth living creatures, male and female, moved in the sea and on the earth.

3. The Egyptians had several myths, the chief of which was that the heaven and earth were at first commingled, but afterwards the elements began to separate. "The fiery particles, owing to their levity, rose to the upper regions; the muddy and turbid matter, after it had been incorporated with the humid, subsided by its own weight. By continued motion, the watery particles separated and became the sea, the more solid constituted the dry land. Warmed and fecundated by the sun, the earth, still soft, produced different kinds of creatures, which, according as the fiery, watery, or earthy matter predominated in their constitution, became inhabitants of the sky, the water, or the land." Similar absurdities prevail in the myths of Greece and Etruria.\* The following quotation from the laws of Menu is illustrative of the strange beliefs of millions in India at the present day, who regard these laws as a revelation from Brahma:

"This universe existed only in darkness, imperceptible, undefinable, undiscoverable by reason—undiscovered, as if it were wholly immersed in sleep. There, the self-existing power, himself undiscovered, but making this world discernible with fire-elements and other principles, appeared with undiminished glory, dispelling the gloom. . . . He having willed to produce various beings from his own substance, first, with a thought, created

\* See "Commentary on the Pentateuch," by Keil and Delitzsch, vol. I., pp. 38-40; and "Creation and the Fall," by the Rev. D. MacDonald, pp. 48-60.

the waters, and placed in them a productive seed. The seed became an egg, bright as gold, blazing like the luminary with a thousand beams, and in that egg he was born himself in the form of Brahma, the great forefather of all spirits. The waters are called Nara, because they were the offspring of Nara, the supreme spirit; and as in them his first ayana (progress) in the character of Brahma took place, he is thence Narayana, he whose place of moving was the waters. From that which is the cause, not the object, of sense—existing everywhere in substance, not existing to our perception, without beginning or end—was produced the divine male, famed in all the worlds as Brahma. In that egg the great power sat inactive a whole year of the creator; at the close of which, by his thought alone, he caused the egg to divide itself, and from its two divisions he framed the heaven above and the earth beneath; in the midst, he placed the subtle ether, the eight regions, and the permanent receptacle of the waters. He gave being to time; to the stars also, and the planets; to rivers, oceans, and mountains; to level plains and uneven valleys; to devotion, speech, complacency, desire, and wrath; and to creation. For the sake of distinguishing action, he made a total difference between right and wrong.

“That the human race might be multiplied, he caused the Brahman, the Kshatriya, the Vaishya, and the Shudra, (the four castes,) to proceed from his mouth, his arm, his thigh, and his foot. Having divided his own substance, the mighty power became half male and half female, and from that female he produced Viraj. Know me, O most

excellent Brahmans, to be that person whom the male power, Viraj, produced by himself—me, the secondary framer of all this visible world.”\*

These are merely specimens of what millions have believed in bygone ages, or are still believing. Ancient and modern cosmogonies alike contradict the commonest and most elementary truths of physical science. In the sacred writings of the Hindoos, there are at the present day statements so ludicrous as to sadden us when we reflect that for millions they are the basis of religious beliefs. The moon is described as having inherent light, and as higher than the sun ; and rational beings have for ages been taught and have believed that seven stories of the globe rest on the heads of elephants, whose movements are the cause of terrifying and calamitous earthquakes. And the Mahommedan is taught by his Koran to believe that the mountains were created to prevent the earth from moving, and to hold it as by anchors and cables : “And God hath thrown upon the earth mountains firmly rooted, lest it should move with you.”†

While far removed from such incongruities as these, the Mosaic record shows also remarkable freedom from merely local or national peculiarities. To this fact too little importance has been attached. It is especially

\* See “What is Truth?” an Inquiry concerning the Antiquity and Unity of the Human Race, by Rev. E. Burgess, pp. 241, 242.

† Koran. The Mahommedans supposed that the earth, when first created was smooth and equal, and thereby liable to a circular motion as well as the celestial orbs ; and that the angels, asking who would be able to stand on so tottering a frame, God fixed it next morning by throwing the mountains upon it.—SALE’S KORAN, vol. 2, pp. 96, 296.

worthy of notice that such incidental details as the climate, the sky, and the configuration of the land, give to a large extent, their own character to locally prevailing ideas regarding the whole universe. The Euphrates and the Mesopotamian plains influence the Babylonian cosmogony; the Nile gives character to the Egyptian; sunny slopes and contrasting heights determine the Grecian; and valley gloom, forest depths, and wintry storms, the Scandinavian. It is easy to trace the physical basis of distinct cosmogonies. The bases themselves may vary, but their connection with religious beliefs is always uniform. Even *national* myths about creation have not preserved their original cast. They have varied with the history of the people. While the *religious* tendency of the national mind, and the traditional basis as to the mere fact of creation, have remained, the form of the cosmogony has been completely changed; it has been so moulded as to suit the different physical conformation and other varied conditions of the new country in which the people have settled. These modifying processes Baron Bunsen himself has acknowledged, when he says: "Again, the dispersed tribes formed many of their myths anew when they settled in their later dwelling places. Thus, in the cosmogonic myths of the Icelander, as presented to us in the Edda, it is impossible not to perceive the influence of the peculiar locality of the North Scandinavian."\* But then, no such process or influence is ever traceable in the Bible account. There is nothing local; nothing contingent; nothing dependent on the

\* Bunsen's "Philosophy of Universal History," vol. 1, p. 80.

traditions of any country ; nothing incongruous or absurd.

How account for this ? How few have ever made the attempt ! How seldom is an explanation sought ! Was not Moses brought up in the learning of the Egyptians ? How did he escape its influence ? Was he not for many years a wanderer in the Arabian desert, and was he not familiar with all the traditions floating in the East and the West ? If the Bible is no higher than other records, is it not strange that not a line appears which indicates in the least any such antecedent influence ? Might we not reasonably count on the leader and lawgiver of Israel showing some disposition to associate Eden, man's birth-place, with the land of promise, which he longed to reach, and which he saw in the distance as Israel's future home ? Yet, in this remarkable history, not one of these defects appears. Vast in its outline, it is yet so scrupulously strict in its minuter details, that it may be read without dubiety, not only in the midst of the exactest records of antiquity, but in the light of those modern discoveries in physical science which bear most directly on its statements. In reliableness and in consistency, it stands alone. The myths of heathenism regarding the origin of the world can be easily separated from it. They are all rebuked by its accuracy. While it contains every element of truth which imparts to them any coherency which they possess, it gives no place to their grotesque and deformed traditions.

Whence this singularly exact and most impressive record ? In the midst of that intellectual and supersti-

tious chaos which, according to some theorists, antiquity at first presented, how arose this bright, solid, and wondrously harmonious system? Traditions could not aid Moses. They only darkened while they multiplied the elements of confusion. Had he really, as some suppose, the sagacity to select, and the skill to combine, separate truths as to creation, while he cast aside the errors or the refuse of ages? Before we can answer that question, we require to pass in review the grotesque beliefs and practices of all the surrounding nations at the time in which he lived, the ignorance of the people, the defective scholarship of the priests, and the absence of attainments in natural science; and we must inquire into the mere possibility of Moses or of any other man, however refined in feeling and profound in thoughtfulness, producing of himself such a history as shines in the first chapter of Genesis. The production of such a record as that out of the materials then existing, may be held as beyond the capability of any unaided human intellect. We do not reason here regarding the inspiration of the record; we are dealing only with the superiority of the Bible record over all others, as presumptive evidence that it is worthy not only of careful study, but of our unhesitating acceptance.

It does not avail, for the settlement of this question, to say that the singular excellence of the Bible account of creation is due to the comparatively pure and correct views of the Divine Being which were held by the Hebrews; for there is this prior question, How came the Hebrews to have these correct views? With their acknowledged tendency to idolatry and to other heathen

practices, how is it that they preserved this historic gem in undimmed lustre? If this history is indeed to be regarded as no more than a mere deduction from different traditions by a philosophic thinker, it is certainly a solitary result in the region of human effort. It has no parallel. In exactness, in splendor, in magnitude, and in far-reaching insight, there can be found no similar result in the history of the most cultivated nations of either ancient or modern times.

Passing from this portion of Bible history, as distinct from the most widely-received cosmogonies, let us examine its constituent sections in their mutual relations. Can they be adjusted to one another? And can they be satisfactorily harmonized with the facts of science?

## II. A BEGINNING.

In the very first verse we have an announcement which distances all that natural science can reach or reveal: "In the beginning, God created the heaven and the earth." The doctrine of creation confronts us. The origination of matter, as against its eternal existence, is proclaimed. God is directly connected with the universe. As already indicated, the last position which natural science can reach, and which limits natural theology, is the starting-point of Biblical or systematic theology. It begins where the others end. It gives no shelter to pantheism or atheism. Both are alike repudiated. God is not set forth as a mere power moving within the mysterious haze of infinity, and having no more relation to this world and its inhabitants than the cold gaze of a

distant star. There is neither hesitancy nor ambiguity. By this positive exclusion of eternity from the existence of the universe, and by repelling the idea of accidental creation, the fact of a beginning is raised in the Bible not only above all the entangling speculations of recent philosophy, but above the boldest reasonings of modern skepticism. This is, indeed, in some instances, frankly admitted by those who have pushed the discoveries of science to their present limit. They tell us that however much farther they may hereafter proceed, they have no hope of gaining the least insight into that origination of matter of which the Scriptures speak. This point they regard as beyond the aim of the sciences, for each is restricted to its own facts and laws, and is necessarily silent in reference to history antecedent to itself. "To ascend to the origin of things," says Sir John Herschel, "and speculate on creation, is not the business of the natural philosopher."\*

Men of lesser capacity, though of equal sincerity, profess to despise the Bible declaration as to a beginning; but their scorn is unavailing, for their reasoning and inferences are rapidly yielding to the pressure of the very sciences which they most revere and serve. Historically, the changed tone of skepticism is encouraging. Spurning the subjection of their reason to revelation, and pitying the "weakness" of those who disliked their arrogance and rejected their dogmas, skeptics demanded proof of a beginning, and evidence for the probability of a close or change in the future.

\* Preliminary Discourse on the Study of Natural Philosophy, p. 38.

But accomplished Christian apologists found it vain to reason with those who eagerly paid servile homage to Plato, while they ridiculed Moses, and who carried the principles which Newton enunciated beyond their legitimate application. They were constrained to be silent, because as yet the sciences gave them no argument by which to meet the objections of their opponents. But the most recent findings of natural philosophy have strikingly vindicated the Scriptures, and have so cast discredit on the boasted assumptions of an imperfect science, that almost no man of acknowledged eminence can now be found to vindicate the eternity of the present cosmical dispensation; and skeptical theorists have to content themselves by boldly asserting that *creation*, or a *beginning* by the will of a Creator, is altogether inconceivable.

Some of the highest authorities in physical science, prosecuting their investigation without the slightest reference to Scripture statements, have given them direct confirmation, and have set aside the assertion of "inconceivableness." "The doctrine of a resisting medium leads us toward a point which the nebular hypothesis assumes—a beginning of the present order of things. There must have been a commencement of the motions now going on in the solar system. Since these motions, when once begun, would be deranged and destroyed in a period which, however large, is yet finite, it is obvious we cannot carry their origin indefinitely backwards in the range of past duration. The argument is indeed forced upon our minds, whatever view we take of the past history of the world. Some have endeavored to

evade its force by maintaining that the world, as it now exists, has existed from eternity. . . . But we may observe that the doctrine of a resisting medium, once established, makes this imagination untenable, compels us to go back to the origin, not only of the present course of the world, not only of the earth, but of the solar system itself; and thus sets us forth upon that path of research into the series of past causation, where we obtain no answer of which the meaning corresponds to our questions, till we rest in the conclusion of a most provident and most powerful creating intelligence.”\*

And the following results, stated by Sir William Thomson, are, by their definiteness, very encouraging to the Bible student, confirming the declarations of the Scriptures, regarding not only the commencement, but the close, of the present cosmical dispensation.

“1. There is at present, in the material world, a universal tendency to the dissipation of mechanical energy.

“2. Any *restoration* of mechanical energy, without more than equivalent dissipation, is impossible to inanimate material processes, and is probably never effected by means of organized matter, either endowed with vegetable life or subjected to the will of an animated creature.

“3. Within a finite period of time past, the earth must have been, and within a finite period of time to come, the earth must again be, unfit for habitation of man as at present constituted, unless operations have been or are to be performed, which are impossible un-

\* Bridgewater Treatise, by Dr. Whewell, p. 206. Edition, 1833.

der the laws to which the known operations going on at present in the material world are subject.”\*

That statement is itself a valuable contribution to Biblical apologetics. Inexorable fact and demonstration have not only dissipated perpetually recurrent theories in reference to the eternity of the present material system, but furnished presumptive evidence of a new and higher order of existences. These remarkable conclusions not only confirm the Bible declaration as to a commencement, but with prophetic directness they sustain its delineations of change and dissolution, and of the establishment of “new heavens and a new earth.”

### III. A CLOSE.

The reasoning which has established a “beginning,” has also so distinctly demonstrated a close, that although, historically, we should reserve for a future stage our brief discussion of the subject, yet, logically, we have sufficient warrant for noticing it here. The commencement and the close are so linked together in our cosmical history, that what affects the one influences the other. Accordingly, while astronomy has given testimony to the truth of the Scriptures, geology has been no less decided a witness to both a beginning and a close. In subjecting the assumptions of geological theorists to the tests of natural philosophy, Sir William Thomson has given a salutary check to unregulated speculation, and has freed the question of *time* from some unnecessarily distracting elements.

\* Transactions of the Royal Society of Edinburgh, 1852.

Apart from his special line of investigation, geologists have come to the same conclusion with him regarding a commencement; the difference between them and him is in the length of time backward to that commencement. "There is not," say Lyell, "an existing stratum in the body of the earth which geology has laid bare, which cannot be traced back to a time when it was not; and there is not an existing species of plants, or animals, which cannot be referred to a time when it had no place in the world. Their beginnings are discoverable in succeeding cycles of time. It can be demonstrated that man also had a beginning, and all the species contemporary with him, and that, therefore, the present state of the organized world has not been sustained from eternity." "It is beyond dispute, and is proved by the physical researches of the earth, that these, the visible forms of organic life, had a beginning in time."\* These conclusions are incontrovertible; the difficulties which many have felt have arisen from the unwarrantable extension of time for the dawn of life-forms, and for their development. Millions of millions of years have been claimed for certain theories as to the beginning and the progress of life; and, apart altogether from the Bible record, the question was ever forcing itself on the unprejudiced student, how determine whether the earth, in these bygone ages, could possibly be the home of life? What evidence is there that the physical conditions of the earth were such that it could sustain plants and animals in even their most rudimentary forms? With a view to the set-

\* "Sedgwick's Discourse," p. 17.

tlement of this question, Sir William Thomson has rigidly applied to the gradual cooling of the globe and its motions, the principles of natural philosophy. In a very suggestive paper on "Geological Time," in which he has considered the retardation of the earth's rotation, he has made the following striking statement: "But if you go back to ten thousand million years ago—which I believe will not satisfy some geologists—the earth must have been rotating more than twice as fast as at present; and if it had been solid then, it must be now something totally different from what it is. Now, here is a direct opposition between physical astronomy and modern geology, as represented by a very large, very influential, and, I may also add, in many respects philosophical and sound body of geological investigators, constituting perhaps a majority of British geologists. It is quite certain that a great mistake has been made—that British popular geology, at the present time, is in direct opposition to the principles of natural philosophy. Without going into details, I may say it is no matter whether the earth's lost time is twenty-two seconds, or considerably more or less than twenty seconds in a century, the principle is the same. *There cannot be uniformity.* The earth is filled with evidence that it *has not been going on for ever in the present state*, and that there is a process of events towards *a state* INFINITELY DIFFERENT FROM THE PRESENT."\*

That is a remarkable finding. It corroborates prophecy. In delineating the close of the present system, the

\* "Geological Time," p. 16.

Bible has done what no other book has ever attempted. That "there is a process of events towards a state infinitely different from the present," is a conclusion of the greatest interest to us; and it encourages those to hold their position firmly who refuse to accept, as *pictorial*, or as figures of speech, the direct and literally historical statements of Scripture regarding the dissolution of the present order of our system. We cannot modify them without deservedly incurring serious reproach.

It is not long since every passage in the Bible referring to the dissolution of the present economy, was exposed to the ridicule of a merciless skepticism; and Bible expositors abandoned truths which they should have held fast and defended. While there are descriptions in which the terms "heaven and earth" refer only to dispensational changes, and while some prophecies tell of revolutions in the Jewish nation, and of the introduction of Christianity, there still remains so much that is neither figurative nor symbolical, that doubt is inadmissible. Let us note some of those prophetic descriptions which are definitely historical and forbid modification. "Of old hast thou laid the foundation of the earth; and the heavens are the work of thy hands. They shall perish, but thou shalt endure; yea, all of them shall wax old like a garment: as a vesture shalt thou change them, and they shall be changed." Psa. 102:25, 26. In strains lofty as the Psalmist's Isaiah unfolds the future: "And all the host of heaven shall be dissolved, and the heavens shall be rolled together as a scroll." Isa. 34:4. "Lift up your eyes to the heavens, and look upon the earth

beneath ; for the heavens shall vanish away like smoke, and the earth shall wax old like a garment, and they that dwell therein shall die in like manner ; but my salvation shall be for ever, and my righteousness shall not be abolished." Isa. 51 : 6. Although such passages as these, taken separately, cannot be the basis of any very decided conclusion literally, yet collectively, and especially when associated with New Testament teachings, they do possess legitimate significance and weight. The saying of Jesus implied future change when he said, "Heaven and earth shall pass away, but my words shall not pass away." Matt. 24 : 35. And have we not all been familiar from childhood with the overawing declarations of St. Peter and St. John : "But the day of the Lord will come as a thief in the night ; in the which the heavens shall pass away with a great noise, and the elements shall melt with fervent heat, the earth also, and the works that are therein, shall be burned up. Seeing then that all these things shall be dissolved, what manner of persons ought ye to be in all holy conversation and godliness !" 2 Pet. 3 : 10. In the no less sublime description of the Apocalyptic Seer, the fact of a universal change is assumed : "And I saw a new heaven and a new earth : for the first heaven and the first earth were passed away ; and there was no more sea." Rev. 21 : 1.

If these and similar descriptions do not foreshadow a vast physical revolution, language is meaningless. There is no ambiguity to shroud mistakes. As literal, these delineations must be rejected or accepted. There is no middle course nor neutral ground. Science, there-

fore, if not silent, must confirm or confute them. And science, as we have already seen, in the conclusion of Sir William Thomson, is giving them singular confirmation. The oft-repeated assertion of olden skepticism, "All things continue as they were from the beginning of the creation," 2 Pet. 3:14, has been swept aside.

New testimonies to the same truths have of late been multiplied. The heavens themselves, apparently the stablest of all existences, show very marvellous changes. Stars long known have been lost; they have disappeared in the abysses of space, and their name alone remains. No longer ago than May, 1866, the splendors of an apparently new star in the constellation Corona Borealis arrested the attention of astronomical students. Anxiously watched by competent observers in separate localities, its changes were accurately noted and compared. There could be no exaggeration nor illusion. In Birmingham, Manchester, Tuam, Rochester, London, Brussels, Canada West, telescopes were, without concert, turned to it, and keen eyes were riveted on every unexpected phase. It rose in its magnificent brilliancy; it slowly waned; it disappeared; it has perished, "as lesser things perished before." Hath God smitten it? By what terrible catastrophe has it been overwhelmed? The light which burst forth many ages ago, has come in its course to us only now, to remind us that the heavens are in the hands of a Mighty Ruler, whose will is sovereign, and who alone is unchangeable.

The astronomer royal has expressed his belief in the burning of that distant world. Inflammable gases,

combining, it has been supposed, gave to it the appearance by which observers were dazzled and impressed. But without accepting or even recording conjectures about the details of the conflagration, it is enough for our argument that a change of such magnitude has taken place, and that it is one of a series. It proves that the heavens are not so adjusted as to be eternally and exactly in the same state, and that as much instability is now known to exist as to constitute presumptive evidence on behalf of St. Peter's declaration. The eternal conservation of the universe, in its present connections, can no longer be held as a fundamental truth in science. It is a fundamental error. The possibility of the earth being consumed by fire is not disputed. The conflagration of distant worlds is an unquestioned fact; and it needs but a slight alteration in the position of the earth, in its shape, in the direction of its axis, or in the velocity of its motion, to give an entirely new character to the globe. A delicate alteration in the atmosphere alone, might instantly render the earth uninhabitable. "Under a thinner air, the torrid zone might be wrapped in eternal snow; under a denser air, and with different refracting powers, the earth and all that is therein might be burned up."\*

In a vast economy regulated by law, there may be, as astronomical science teaches, a tendency to dissolution, slow but sure, which will produce, through the confusion and overthrow of existing adjustments, such amazing results literally as the Bible has foretold.

\*"Reign of Law," by the Duke of Argyll, p. 53.

The globe is carrying within itself volcanic forces sufficient to dislocate and overwhelm its inhabited crust, if only the balance of pressure and upheaval be in the least degree destroyed; and chemistry has long attested the facility of a universal overthrow and conflagration. The subtlest and most delicate combinations are invested with such tremendous power, that they require but slight modification to insure a literal fulfilment of the apostolic prophecy regarding the heavens passing away "with a great noise," and the earth and its works being "burnt up." There is to be "dissolution," not annihilation; there is to be a new economy, a new heaven and a new earth. The sublime announcements of St. Peter and of the Apocalyptic Seer, so long accepted by many apologists as invested with merely poetic drapery, and so long sneered at as sensational by rigorous physicists, have been rescued from misinterpretation. The statement that there "shall be no more sea," can only be ridiculed by those who are ignorant of the truths which the natural sciences have already evolved and vindicated.

These possibilities might, of course, be accepted without a very strong probability of any actual changes beyond what are now transpiring, and they constitute only presumptive evidence on the side of Scripture; but, in Sir William Thomson's demonstration of an inevitable change which will render this earth unfit for man's existence, unless there be new operations, which are impossible without the interposition of a power not now manifested, we have an unimpeachable warrant for the literal interposition of St. Peter's delineation of the close

of the history of our world as now constituted. It has a weight and an emphasis which no strictly theological or critical disquisition can ever possess; and is it not most encouraging to find the deductions of natural philosophy becoming thus the expositors and vindicators of revealed truth, as they fully aver all that the Bible has announced regarding not only the past, but the future history of the globe? To those who have passed through the jungle-like speculations and propositions of the olden atheists, regarding an "infinite series," and the more recent metaphysical reasonings prosecuted to prove the eternity of the present system of organic and inorganic beings, it must be an unspeakable relief on coming forth beneath the clear sky of definite truths, to find the Bible and natural philosophy blending their lights "as suns upon each other shining." That the universe is not eternal, may be held now to be incontrovertible. Creation *has* been; and questions as to the date of the beginning are of comparatively subordinate interest. There is, however, one other subject so closely connected with this part of our inquiry, that it must be examined. It is—

#### IV. THE IMPORT OF "IN THE BEGINNING."

Is this the beginning of all beginnings? or is it the beginning of the formation of the heaven and the earth out of materials which had already been in existence? Some eminent Jewish commentators deny that this is the beginning of all beginnings; they exclude from this sentence the idea of *origination*, and they limit the state-

ment to the forming or shaping of materials.\* They found their conclusion on the assumption that the "in the beginning" is, as grammarians express it, in the construct state, and that thus it is limited by something of which it is the beginning. They do not admit that the Hebrew word *Bara* expresses the originating of all creation; and the question ultimately turns on the greater or less comparative importance which we attach to the first *creation* of matter, and to the first *adjustment* of its forms or the first impulse of its laws. The relative value of creating matter and of ordering its structure and functions, is an interesting yet not a very profitable subject of discussion. Professor Tayler Lewis makes the creation of matter the lesser work. "Taken as a fact," he says, "it is the lowest in the scale of the Divine works, if we may be allowed to make any comparisons among them. It is simply an exercise of the Divine strength. On the other hand, the giving form to matter, which is so clearly revealed as the true creative stage, is the work of the Divine Wisdom, and might be supposed worthy of God, as an exercise of his infinite intelligence, even if it had no other than an artistic end. The carrying these forms into the region of the moral, or the impressing moral designs upon them—in other words, building the world as the abode of life, and the residence of moral and spiritual beings capable of witnessing and declaring the glory of the Creator—is the work of Divine Love. In revising this scale of dignities, the actually lower comes to

\* See Professor Tayler Lewis on the Essential Ideas of Creation, in "Lange's Commentary on Genesis," pp. 126-130.

be regarded as the higher and the greater, merely because it is the more remote from us."\* There is considerable force in this reasoning, as against those who seek to displace God from the creative formation or the evolution of the heaven and the earth, but it has little interest for the sincere Bible student, because, between the creation of matter and its harmonious and productive evolutions, we find it hard to establish values. Attributes that are infinite—power, wisdom, love—have to be associated with both, and in their light all distinctions are lost. To describe the building of the world as merely preparatory to its being made the abode of moral and spiritual existences, does not elucidate the subject nor lessen difficulties, because the very presence of these moral beings betokens of itself prior creative action. While conflicting criticisms have been pressed on us as to the special import of the term *bara*, create, the greater weight of scholarship is, I think, on the side of its expressing the origination of this universe—that is, the beginning of all beginnings, the creation out of nothing. "To the idea of a creation out of nothing," says Hävernick, "no ancient cosmogony has ever risen, neither in the myths nor the philosophemes of the ancient world. By the peculiarity that the Biblical cosmogony has, for its fundamental idea, *a creation from nothing*, it is placed in a category distinct from all other myths. Hence, recently, there appears above all things a disposition to deny that this is contained in the history of creation, but certainly without success." In the commencement of the Gospel by

\* "Lange's Commentary on Genesis," p. 129.

St. John, we have proof that this is the beginning of all beginnings, when it is said, "In the beginning was the Word: the same was in the beginning with God: all things were made by him."

A subsidiary yet substantial argument for the beginning in Genesis being the commencement of beginnings, lies in the special use of the term *bara* as expressive of a creative act. It is remarkable that this term is in Scripture invariably applied to God, and never to any created being. God was known by the Israelites as Boré, Creator. Creation is a divine act—something performed indisputably by God alone; and the question has lately been limited to creation out of nothing, or a creation of something new out of what before existed. It is admitted that *Yatzár*, he formed, and *Asáh*, he made, may be used as applicable to men; and that *Bara*, he created, is alone applicable to God; but it is said that it does not necessarily express creation *out of nothing*. Scholars do not now insist on this exclusive meaning. They do not assert that it *never* has such a meaning; yet it is the only Hebrew term which expresses this idea, and we have to look to the context and to the connections of the term rather than to the term itself, to determine conclusively which view should be taken. "But that in the first verse," says Gesenius in his Thesaurus, "the first *creation of the world out of nothing*, and in a rude and unformed state, and in the remainder of the first chapter the elaboration and disposition of the recently created mass are set forth, is proved by the connections of things in the whole of this chapter;" and he

adduces, in support of this opinion, the conclusions of Jewish Rabbis.

We are perplexed by finding that so distinguished a writer as Max Müller refuses the conclusions of such scholars as Gesenius, at least on the grounds on which they rest them, and approvingly quotes those who regard *bara* as properly meaning to create out of *preëxisting materials*; but let it be observed that he does not positively preclude its meaning in any circumstances to create out of nothing.\* As *bara*, in its most recondite application, can refer only *once* to creation as *originating* matter, and afterwards, of course, only to what is evolved as new from existing things, its special meaning must be determined by its connections. The peculiar description, *In the beginning*, gives emphasis also to the *created* which follows, as separating what has *begun* to be from the Creator who is eternal; and it may be held as establishing historically the idea of an *absolute* beginning in time. Creation can only be understood aright as connected with the will of a personal God. Apart from God, creation by law is utterly unintelligible. Origination, or immediate creation, and development or forming in mediate creation, cannot be studied satisfactorily without reference to the will, the wisdom, and the power of the everlasting Ruler.

But it would be unwise to dogmatize regarding the

\* "Chips from a German Workshop," vol. I., p. 135.—Interesting statistical details regarding the use and meaning of the terms which are translated *create*, *form*, and *make*, are given by Archdeacon Pratt in his most admirable work, "*Scripture and Science not at Variance*," pp. 47, 48. Sixth edition.

absoluteness of this beginning as the first of all beginnings. In the measureless past, in which millions on millions of ages have sunk and have been lost, as pebbles in the ocean, there *may* have been other universes before ours, which have historically run their course, fulfilled their ends, and perished. Brought out of nothing, they may have again been reduced to nothing. The fact is conceivable, though not the process, unless we assume the eternity of matter; or that when God has created a world out of nothing, he has done what he cannot undo. Universes *may* have come, run their course, and gone. Their histories may be Creation-seasons. Nor can we speak absolutely of ours being the beginning of all beginnings; because in other spheres of measureless SPACE, which no telescope can ever reach, there may be other universes with earlier beginnings than ours. It is enough for us to know that this, our universe, our heaven and earth, was created by God; and that the first statement in Genesis proclaims the beginning of all beginnings connected with the history of our globe. And we do no violence to reason when we assume that He who made one world in space, made all worlds in space; that He who made one world in time, made all worlds in time; and that He who gave matter its forms, gave it also its origination, or that which is the ground of all its forms.\*

\* See "Lange's Commentary on Genesis."

## CHAPTER III.

THE FIRST CHAPTER OF GENESIS—THE ORIGIN OF LIGHT—  
ITS EXISTENCE BEFORE THE SUN WAS MADE SEPARATE-  
LY VISIBLE—THE ORIGINATION OF LIFE—THE CREA-  
TIVE DAYS.

It is not for the refutation of objectors merely, and for the conviction of doubters, that it is worth while to study the two volumes—that of nature and that of revelation—which Providence has opened before us, but because it is both profitable and gratifying to a well-constituted mind to trace in each of them the evident handwriting of Him, the Divine author of both.—ARCHBISHOP WHATELY.

## I. THE ORIGINATION OF LIGHT.

THE grandeur and impressiveness of the description in the Bible of the origin of light, and of the introduction of the sun and moon, it is almost impossible to exaggerate. In his treatise on the *Sublime*, the Roman poet Longinus has quoted, with the highest admiration, "Let there be light, and there was light." Familiar as we are with the description, it is necessary to repeat it. "And God saw the light that it was good; and God divided the light from the darkness. And God called the light Day, and the darkness he called Night. And the evening and the morning were the first day. . . . And God said, Let there be lights in the firmament of heaven to divide the day from the night; and let them be for signs, and for seasons, and for days, and years; and let them be for lights in the firmament of heaven to give light upon the

earth : and it was so. And God made two great lights : the greater light to rule the day, and the lesser light to rule the night ; he made the stars also. And God set them in the firmament of the heaven, to give light upon the earth, and to rule over the day and over the night, and to divide the light from the darkness ; and God saw that it was good. And the evening and the morning were the fourth day."

The sublimity of this brief description has often been lost amid the sneers of the infidel and the atheist. "How could there be light before the sun?" was one of the triumphant questions which Voltaire and his followers rarely failed to press upon the Bible student. There was no escape from the difficulty ; for nothing could be clearer than the fact that the Bible did commit itself to the statement that light existed before the sun appeared. It does not say, observe, before the sun-mass or sun-elements existed ; but it does assert that there was light before the sun shone forth in its visible and appointed relation to this world. The statement was too explicit and too direct to admit of any satisfactory explanation beyond what the fair reading of the description itself allowed : namely, that there was light before the sun was visible ; and this supposition—for the state of science admitted of nothing more—was invariably denounced as a weak, if not a mischievous, theological invention. Many scorned it as a superstitious belief, or the paltry resource of controversial despair.

But the mystery has been receding as discovery has advanced. That there may be light without the visible

sun, is now admitted ; and it is not going farther than the facts warrant, to suppose that light of old *did* thus exist ; not, perhaps, as absolutely separable from the sun, but as closely connected with its history. What was hidden is made manifest, as explanatory facts are being placed together. The sun-mass is itself dark, and around it is a wondrous sphere of light that is perpetually exhibiting phenomena which it does not lie within our plan to describe minutely. It is enough to remark that there have been discovered circles or spheres of light widening as they recede from the central mass, which ages ago have apparently been so wide as to bring our globe within their compass. When it was said, "Let there be light," there was not so much a new creation as the evolution of a new fact, or rather the presentation of a new condition of things, in the already created heaven and earth. Originally darkness reigned, and then light was summoned into existence. "God commanded the light to shine out of darkness" (2 Cor. 4:6) wrote St. Paul in obvious reference to this passage. The light appears to have been so diffused as to bring to our earth, through subsequent ages, such supplies as may have been best adapted to whatever plant or animal life may have then existed. This view is sustained by recent inferences to which observation of the sun has led, and which may render unnecessary the common supposition, that while the sun existed in its present form, with all its present forces, its light was too much lost in the vapors which hovered over the earth to admit of its being visible, as it is now. That vapors obscured the light, may be proba-

ble; but the light, it would seem, was diffused under conditions different from those which now obtain, until the fourth day, when the sun was made separately visible.\* As light, or rather a luminous substance, appears to have been diffused beyond the orbit of our earth, there must, therefore, have been a period without darkness. But when the circumference of the envelope or luminous substance was contracted within the orbit of the earth, there was darkness alternating with the light—that is, of course, supposing the earth then as now revolved on its axis. This would give the first day, evening and morning; evening, because the first contraction of the light within the earth's path gave such darkness as may have subsisted us. "And God divided the light from the darkness." Other changes followed, by which the waters, the land, and the atmosphere were separated; and when these had been completed, there appeared vegetation in varied forms. The light, in all likelihood, while passing into its present conditions, shone through vapors which also gradually changed, until the sun and moon appeared in fulfilment of the Divine purpose; the one to rule the

\* Mr. Proctor, Honorary Secretary of the Royal Astronomical Society, in summing up the more striking results obtained by the observations of the late Solar Eclipse, has confirmed this inference: "The observation made by Liáis would tend to show that, as has been long suspected, the zodiacal light is sunlight reflected from cosmical matter travelling continually round the sun, for we could not expect the solar dark lines to appear in so faint a spectrum. If this is the case, the radiated corona cannot but be regarded as only the innermost part—the core, so to speak—of the zodiacal region. Hence, we should be led to recognize the EXISTENCE OF ENVELOPE AFTER ENVELOPE *around the sun, until even the vast distance at which our earth travels is reached or overpast.*" "The late Solar Eclipse," by Richard A. Proctor, B. A. *Good Words*, June. 1872, pp. 423.

day, the other to rule the night. The chief difficulty lies in ascertaining the probable extent of the light and its characteristics in that long cosmical history, of which as yet only glimpses have been obtained ; but these glimpses are so much in harmony with the sacred page, that the arrogant charges of ignorance, once so freely made, have almost ceased.

One or two facts may be mentioned, as confirming the more recent elucidation of this Scripture statement. Humboldt, in describing the beauty of the zodiacal light, has said: "The zodiacal light, which rises in a pyramidal form, and constantly contributes by its mild radiance to the external beauty of the tropical nights, is either a vast nebulous ring, rotating between the Earth and Mars, or, less probably, the exterior stratum of the solar atmosphere."\* "For the last three or four nights, between  $10^{\circ}$  and  $14^{\circ}$  of north latitude, the zodiacal light has appeared with a magnificence which I have never before seen. Long narrow clouds scattered over the lovely azure of the sky, appeared low down in the horizon, as if in front of a golden curtain, while bright varied tints played from time to time on the higher clouds ; it seemed a second sunset. Towards that side of the heavens, the diffused light appeared almost equal to that of the moon in her first quarter." Not less striking is his description in another passage, of a cloud well known to astronomers, passing over the heavens luminously and with great rapidity. "The light of the stars being thus utterly shut out," he says, "one might suppose that surrounding

\* *Cosmos*, vol. 1, p. 69.

objects would become, if possible, more indistinct. But no: what was formerly invisible can now be clearly seen; not because of lights from the earth being reflected back by a cloud, for very often there are none; but in virtue of the *light of the cloud itself*, which, however faint, is yet a similitude of the dazzling light of the sun. The existence of this illuminating power, though apparently in its debility, we discover also, in appearance at least, among other orbs."

While these facts prove the existence of light without the sun being visible, it may be urged that the light spoken of in Genesis not only made day and night, but it must have been sufficient to sustain life. To suppose that it was adequate for this end involves no violent hypothesis, for neither plant nor animal life is spoken of until there has been a separation of land and water. In the earlier and more recent geological ages, the heat was doubtless greater than it is now; and this, taken in connection with a surrounding vaporous atmosphere, and with such light as existed, may have conduced to the development of whatever plant-forms then prevailed. Difficulty in entertaining this view has been greatly lessened by the fact, that not only plant but animal life may be sustained under such conditions of feeble light, great pressure, and intense heat, as were not long ago deemed incredible.

A critical examination of the phraseology of the Bible regarding the light, confirms this view. The language is precise, discriminative, and significant. Moses uses one word for light in the third and fourth verses,

and another word in the fourteenth and fifteenth. In the first instance, when he speaks of light essentially as light, or as a mere existence, he uses the term *Or* ; but in the second instance, when he refers rather to one of its practical purposes, he uses the term *Maōr*—the instrument or the visible source of light to our earth and its system. It is “to give light upon the earth,” v. 15. That seems to be worth noting. It is not a haphazard but a deliberate distinction, for there is a similar discrimination of terms between the “created” of the first verse, and the “made” of the sixteenth verse. “In the beginning God *created* the heaven and the earth,” but “God *made* two great lights.” In the one we have “*bara*,” *create* ; in the other, *asáh*, he *made* or fashioned or appointed, of materials or objects already created or existent, the sun to be a LIGHT-BEARER ; and so also the moon, which is known not to have light either in itself or immediately surrounding it. The Creator adopted and employed for this purpose the sun and the moon, and may have introduced, for the first time, such relations as now exist between them and our atmosphere. Adopting the latitude of interpretation which is warranted by the use of distinct terms, *bara* and *asáh*, we suggest another view. When, after the deluge, God “set his bow in the cloud to be a token that the waters shall no more become a flood to destroy the earth,” it is not necessarily an inference that the rainbow had never before appeared. As all the physical conditions on which it depends had existed during man’s history, it *may* have often been visible ; and, assuming that it was so, it only received a new historical connec-

tion when it was made a "token" of the Covenant. In the same manner the sun and moon and stars may have been visible long before they were appointed to be "for signs and for seasons," and to fulfil a new historical relation to man, as they ever afterwards rule his day and night.

Such critical statements cannot be pushed aside as an ingenious attempt, by theologians, to save the Scripture record from the consequences of scientific research. We are not ashamed of them. They have been recently confirmed, almost to the very letter, by the remarkable conclusions of Sir William Thomson as to historical changes in the constitution of the sun. He has demonstrated that the light which is emanating from that central body, could not have always been coming from it; because, for ages, the condition of the sun-mass did not admit of it. At a comparatively recent period, historically, the sun began to shed its splendor through space under its present aspects. Science has thus already dispelled, to a large extent, the difficulties which beset the literal interpretation as to light, and has checked intolerant infidelity. What has been achieved is specially encouraging to those who have accepted the Bible as their guide. It is of the utmost value. No more striking confirmation of the scientific accuracy of the Scripture record has of late been given, than that afforded by recent investigations of the present condition and past history of the sun. While the creation of the sun, with the earth and the other heavenly bodies, is intimated in the first verse, it is not until ages had elapsed that the sun itself, as a *distinct*

light-giving body, was adapted to our globe, and afterwards connected with the history of the human race. Surely these remarkable confirmations which natural philosophy, with unintentional directness, is bringing to the Word of God, may well evoke our gratitude and deepen our sense of responsibility.

## II. THE ORIGINATION OF LIFE

is another fact which science, as well as Scripture, has connected with the hand of the great Creator.

It is after the introduction of light, after the separation of the land from the water, and after the globe had received its encircling atmosphere, that life was introduced. Geology confirms this. It has been clearly proved that life, in the geological history of the globe, so far from being of eternal duration, has had a comparatively recent origin. Reliable testimony is abundant, and might be largely adduced. "The infinite series of the atheists of former times," says Hugh Miller, "can have no place in modern science: all organic existences, recent or extinct, vegetable or animal, have had their beginning; there was a time when they were not."\* The inference of the geologist has been confirmed by the demonstration of the natural philosopher. Sir William Thomson has dissipated all speculation regarding an "infinite series" of life-forms, by proving, as we have already stated, that they could not extend over "millions of millions of years," because, assuming that the heat has been uniformly conducted out of the earth, as it is

\* "Testimony of the Rocks," p. 197.

now, it must have been so intense, within a comparatively limited period, as to be capable of melting a mass of rock equal to the bulk of the whole earth.

Life has its secrets. Its beginning is with God. He is the self-existent Life. He is the Lord and giver of life. His uncreated life passeth knowledge. It is vain to inquire when did life, as separate from him, begin to be? and what its forms, angelic or archangelic? We stand helpless before insoluble problems. We are shadowed by inscrutable mystery. Alike in its lowest and highest forms, life is in Scripture connected with God's hand. Vital force is not the result of inorganic matter. It controls matter; it subordinates its element to its own expansion and growth. By its action, chemical and mechanical forces are modified or suspended. In the laboratory of nature, no one has ever detected the evolution of life from either inorganic or dead matter. Professor Huxley has ingeniously made what he calls protoplasm "the formal basis of life. It is the clay of the potter," he says, "which, bake it and paint it as he will, remains clay, separated by artifice, and not by nature, from the commonest brick or sun-dried clod; thus it becomes clear that living powers are cognate, and that all living forms are fundamentally of one character."\* But this explanation cannot be accepted as removing difficulties regarding the origin or "basis of life." Protoplasm is not uniform; it is not chemically one. It varies in different plants and animals. "For the protoplasm of the worm, we must go to the worm; and for that of the toadstool, to the

\* "Physical Basis of Life—Lay Sermons," p. 129. Third edition.

toadstool. In fact, if all living beings came from protoplasm, it is quite as certain that but for living beings protoplasm would disappear.\* Thus, the difficulty is not solved, nor even lessened; and the questions still come to be answered, whence protoplasm? whence its varieties? and WHENCE LIFE? Nor is the difficulty removed by the "cell" system, on which some German histologists have rested with so much confidence. Admitting that cells may be self-complete organisms, moving, growing, reproducing themselves; and also that "brain cells only generate brain cells—and bone, bone cells;" we come no nearer the origin of life. If cells can come only from cells, whence the first cell or the first series? In Dr. Bastian's recent elaborate work, an attempt has been made to show the "*Beginning of Life*;" but in such a way, and to such an extent, that his principles, if valid, should have completely altered ere now the whole complexion of the LIFE-history and condition of our globe. M. Pasteur, whose name is honored wherever exactness in scientific research is valued, by a series of experiments, of which Professor Huxley has said, "They appear to me now, as they did seven years ago, to be models of accurate experimentation and logical reasoning," has proved that there is no evidence whatever that living organisms can come forth by spontaneous generation from unorganized matter. At the recent meeting of the British Association in Edinburgh, it was an accepted truth that "life can come only from life." Darwin himself has admitted this when he traces the commencement of all animated

\* "As Regards Protoplasm," by Dr. Stirling.

existences to the Creator having breathed life into two or three simple forms. The now almost universal acknowledgment that life has its origin from God alone, is another triumph of science on the side of Scripture.

In the Bible, the *historical* record of creation has a scientific basis; but so great is its prevailing simplicity of statement, that we are apt to overlook the fact. Instead of commencing his record with the introduction of MAX as the being most prominent and the most influential—as the being, indeed, whom unguided reason most naturally would have first introduced—Moses tells us that the *lowest* forms of life commenced to exist—plants first, animals next. This is as it ought to be. Plants drawing their nourishment from inorganic substances, were first created; and, as animals could live only on plants or animals, they were next introduced. “And God said, Let the earth bring forth grass, the herb yielding seed, and the fruit-tree yielding fruit after his kind, whose seed is in itself, upon the earth: and it was so.” Then follows, in the succession of life, the origination of animals in the sea and on the land. Vegetable forms, as they spread, act on the carefully-prepared materials in the soil and the water; they manufacture food for themselves, and, storing it up in their own fabric, they provide support for the succeeding animals. The Bible record thus harmonizes with that which science has shown to be necessary. Whence all this accuracy? Can it possibly be the outcome of chance?

There is another significant reference in the eleventh and twelfth verses to one of the distinguishing character-

istics of botanical science, which may be legitimately acknowledged. "And God said, Let the earth bring forth grass, the herb yielding seed, *and* the fruit-tree yielding fruit after his kind, whose seed is in itself, upon the earth: and it was so. And the earth brought forth grass, *and* herb yielding seed after his kind, and the tree yielding fruit, whose seed *was* in itself, after his kind: and God saw that it *was* good." The brief description is repeated with emphasis, as if it were intended to be noticed. Its *aptness*, as related to botanical science, will be acknowledged even by those who refuse to admit otherwise its importance. While the Linnæan system of classification according to distinctions in the flower, was useful, it was felt to be inadequate, and in some degree unscientific. Botanists strove to establish a more natural method, and they have succeeded by making the character of the seeds and other affinities of structure the basis of classification. This was found to be so satisfactory, that not long ago it was regarded as another trophy of science. It was, indeed, a new height gained, or rather an old one reached; for Moses was seated there with that very principle written on his scroll, more than three thousand years ago. His distinctions are the same; plants are classified by him according to their "seed" and "kind" or structure; he intimates a basis which is sufficient for every natural division, by whatever route it may be reached, whether by the elementary, the nutritive, or the reproductive function, and to which the labors of Jussieu, De Candolle, Endlicher, Lindley, and others, have added nothing essentially new.

## III. THE CREATIVE DAYS.

It is almost impossible, in studying the first chapter of Genesis, to escape the bewildering confusion which conflicting interpretations as to the days have created. While on the other questions, Christian students and skeptics or infidels are ranged on opposite sides, the differences on this question are chiefly among Christian interpreters themselves. As they expound and defend their respective opinions, they at first foster the prevailing confusion; but this is generally done with so much of genial interest in one another's solution of acknowledged difficulties, that the conflict has, at last, lost much of its keenness. The view that satisfies one is not acceptable to another; some regard the days in one light, some prefer a different interpretation, and others accept a modification of both. We are not in circumstances to insist rigorously on any one of the ordinary interpretations; all that we regard as at present incumbent on us is to explain what seems to us most consistent with the tenor of Scripture and the teaching of science. While doing this, we shall state some of the views with which accomplished Christian students of science have been satisfied. Their differences of interpretation are not to be held as expressing antagonism to the Bible. It is unfair and illogical to conclude from the existence of these differences that all of them are erroneous, and to assume, because of them, "that the Mosaic account itself is untrue." Opponents commonly "pass by the several points in which the interpreters concur, viz., that the

account in Genesis is true ; that it was communicated to the writer by inspiration, that it teaches that matter is not eternal, that God created matter in the beginning ; that the beginning may have been, and probably was, countless ages ago ; that the document describes a creation which was distributed over six portions ; that man was created out of the dust in the sixth period ; that the Sabbath was instituted for the benefit of man in commemoration of this work."\* And they eagerly press attention on the points about which they differ ; but they "are points which affect the explicitness of the narrative, not its truth."

Those theories have not found much acceptance which have attempted to explain the statements as to days, by visions or by the drapery only of poetic diction. The first chapter of Genesis is so explicit and so direct, that it is difficult to understand how its literal character can remain unobserved. Those who regard the days as either periods or natural days, accept the literal or historical character of the chapter, and differ only as to the length of the time in which the specified changes took place.

It is scarcely necessary to add that the Bible does not give any evidence as to the date of the beginning. "The writings of Moses do not fix the antiquity of the globe," said Chalmers, when geology was yet in its infancy. He held that between the first verse, announcing a beginning, and what follows as to the work of the days, there was a period immeasurable by us, in which all the

\* "Scripture and Science not at Variance." Sixth edition, p. 54.

changes were evolved which rendered the globe habitable by man. This long unmeasured interval is admitted by both classes of interpreters. The writer who has given greatest definiteness to the opinion that the days were not natural days, but days embracing many thousands of years, is Hugh Miller; and the most powerful advocate of the days as days of ordinary length, is Archdeacon Pratt. Hugh Miller assumes that each day not only represented an age of enormous duration, but gave scope for the growth and life of all those animals and plants with which, as fossils, the strata of the globe are stored. He identifies with the third, fifth, and sixth days respectively, "the period of *plants*, the period of *great sea monsters and creeping things*, and the period of *cattle and beasts of the earth*." And these days he connects with geologic history—that is, with what has been commonly designated the Primary, Secondary, and Tertiary formations. The work of the fourth day, or the introduction of the sun and moon, he leaves undiscussed, as not lying properly within the sphere of the geologist. In this his theory has failed. It does not meet all the facts of the case; and, with regard also to the Sabbath *as a period*, there are difficulties which have not yet been overcome. But apart from these anomalies, the theory cannot be satisfactorily harmonized with the facts of geology; at least, so great latitude of interpretation has to be adopted with a view to their satisfactory adjustment, that it is a much simpler, and also a much safer, course to accept the days as natural or ordinary. There have been, according to M. D'Orbigny, so many distinct breaks or

changes, that they cannot be harmonized with the six Mosaic days. This is, of course, denied by evolutionists, whose system displaces every theory or interpretation, whether referring to periods or days ; but although breaks and intervals remain, those who have accepted the period-interpretation have reasons for their conclusion which it is not our desire to ignore or repudiate. As that theory may present, to their judgment, the most satisfactory solution, it is their duty to retain it, while they watch with interest the progress of scientific investigation, and the bearing of its results on their conclusion.

Modifications of this theory have appeared from time to time ; and we are not without hope that the day will come when science may constrain all classes to accept a common conclusion. "The seven days of creation," says a recent writer, "are neither seven literal days, of twenty-four hours each, nor yet seven definite historical periods, the events of which are literally recorded ; but as the seven seals, trumpets, and vials of St. John's Revelation, represented the history of the future by a typical representation of each of its grand divisions, without any of them being chronologically defined, so do the seven days of the Mosaic economy represent, in a dramatic and typical form, the successive changes which took place at creation, each grand feature being boldly sketched out in one scenic representation *characteristic* of that period."\* This supposition may to many prove the most satisfactory.

The view which Dr. Chalmers propounded has, in its broad outline, the charm of simplicity and the advantage

\* "Primeval Man Unveiled," p 44.

of placing the historical statement in the same light in which the others are received. "The first verse," he says, "describes the primary act of creation, and leaves us to place it as far back as we may; and the first half of the second verse describes the state of the earth at the point of time anterior to the detailed operations of this chapter." On this supposition, an immense interval elapsed between the beginning and the establishment of the present condition of the globe, and during that interval all the processes have transpired with whose results geologists are now conversant.

The six days' creative acts may constitute those changes only which immediately preceded man's appearance. The description in the first chapter of Genesis had reference specially to man. The light, the atmosphere, the plants, the animals, are introduced in obvious relation to him; and it is but natural to suppose that those changes only would be mentioned which had the closest historical connection with him. The facts of geology warrant the inference that in immediate connection with the time of man's appearance, plants and animals were introduced, not before existing, which were specially adapted to his wants. The paraphrase by Archdeacon Pratt, (p. 49,) omitting his supposition as to the process by which light was introduced, is in harmony with the opinion which we have long held, and often fully explained; and his brief summary is, on the whole, an admirable statement of the view which we think most honors the historical directness of the Scriptures, and best meets the requirements of science. It is an expan-

sion of Dr. Chalmers' suggestion, and is based on the wider range of facts which, since his time, scientific inquiry has produced. In the long interval between the first creation of the heaven and the earth, and the preparation of the earth for man, races of plants and animals lived, died, and became fossilized; but because man is not specially concerned with these long historical processes, the Scriptures are silent regarding them."\*

While questions regarding details may be urged which, in the present stage of scientific inquiry, cannot be satisfactorily answered, recent discoveries in geology and applications in natural philosophy, taken in connection with advances in Biblical scholarship, warrant our anticipating such a combination of results as may soon shed light through what is still obscure. Meanwhile, we may suggest the probability that, while in the six natural days the preparation of the earth for man was consummated through a series of divinely-instituted adjustments, these transactions are the outcome or crown of processes which had been transpiring through long antecedent periods—but an outcome only through the mediately creative power of God. The six days' work, therefore, may be representative of those changes and advances which constitute the previous history of our globe as the intended abode of man. Revelation, in closing the Bible, unfolds the future; Genesis, in its commencement, reveals the distant past. The Bible sheds light in both directions, until it fades in mystery; but the same principles of interpretation can be legitimately applied whether

\* "Scripture and Science not at Variance," pp. 77, 78.

we look into the future or into the past. We may assume, therefore, that as one prophetic description sometimes serves to cover widely separated future events, so the one historical description in Genesis may embrace events in the past lying widely apart. In Ezekiel's description of the coming destruction of Tyre, for instance, we have events brought together which were in part fulfilled in the siege of Nebuchadnezzar, and in part two hundred and fifty years afterwards, by Alexander the Great; yet no such distinction in time is perceptible in the narrative itself. In like manner, the description, in the first chapter of Genesis, while setting forth those transactions which had most direct reference to man, may also embrace those other transactions which, although separated by intervening ages, yet pointed to the same result.

And the six literal days may themselves be representative, as Principal McCosh supposes, "of six epochs, just as our Lord's prediction of the destruction of Jerusalem has throughout a reference to the final day." Taking this view, he indicates that the transaction recorded in the opening of Genesis may not be a mere vision, but a "reality which retains the natural days, as after the type of the natural epochs, and keeps the seventh day as a true day, and yet a prefiguration of the Sabbath of rest which remaineth for the people of God."\*

It is unnecessary to prosecute this subject farther; enough has been stated to show that the questions which have been raised may be differently answered, without

\* See an Instructive Note in "The Supernatural in Relation to the Natural," pp. 343, 344.

displacing the Bible. Inferences may vary with the shifting results of science. Holding fast the Bible with the one hand, we may grasp all that science brings to us with the other, and retain it until we find for it an appropriate place. There is nothing to repel the Christian in the records of science. He can, therefore, afford to wait for more light; while, in the meantime, he rejects none of those supports which are within his reach. Temporary in their character, they may guide to what is permanent. If there is one lesson more than another which the progress of the sciences is teaching us, it is that of caution and the necessity of repressing dogmatic tendencies; and if there is one benefit more than another which the history of this discussion is conferring, it is that of greater confidence in the truth of the Bible.

vague and shadowy or incongruous, but are so definite as to meet the generalizations of astronomy. Ideas were not uncommon at one time regarding the measurableness of the heavens and the numbering of the stars; but in the Bible this arrogance found only rebuke, as it ever assigned to Deity alone the prerogative of measuring space and counting the stars. "Look now toward heaven, and tell the stars if thou be able to number them." Gen. 15:5. "He telleth the number of the stars; he calleth them by their names." Psa. 147:4. "To whom then will ye liken me, or shall I be equal? saith the Holy One. Lift up your eyes on high, and behold who hath created these things, that bringeth out their host by number; he calleth them all by names, by the greatness of his might, for that he is strong in power; not one faileth." Isa. 40:25, 26. "Is not God in the height of heaven? and behold the height of the stars, how high they are!" Job 22:12. "For by him were all things created that are in heaven and that are in the earth, visible and invisible, whether they be thrones, or dominions, or principalities, or powers; all things were created by him and for him; and he is before all things, and by him all things consist." Col. 1:16. These and similar sublime passages we can hold firmly in the light of modern discoveries; they sustain all that has yet transpired on the side of science, and astronomy cannot dissociate itself from these great revealed truths.

The idea of unity is strengthened by the impressive conclusion of M. Maedler, that this visible universe of suns and their systems is moving around some grand

centre, in a ceaseless, and, to us, mysterious march. Guided by analogy, Herschel reached this inference; and, since that time, definite reasoning has confirmed it. M. Maedler's conclusion that the star, Alcyone, one of the Pleiades, the well-known seven stars, represents the common centre of the cosmical system, has in its support such concurrent approval that it may be accepted. While admitting the soundness of the inference that there is such a centre, some doubt whether it has yet been ascertained, and, like the late Sir David Brewster, suppose that the centre may be dark, and of course not visible; but whether Alcyone be the real centre or not, does not affect the conclusion as to unity. That there is a centre somewhere, is admitted; and long ages ago, before the light of astronomy dawned on this fact, it was in dim vision revealed to Job. It was unfolded to him as a truth, the full import of which possibly he did not comprehend, and he repeats it in the question, "Canst thou bind the sweet influences of Pleiades, or loose the bands of Orion?" Job 38:31. The profound significance of this long-hidden or mysterious question, has, of late years, attracted attention as strangely prophetic of a truth which, at last, the once distant future has begun to unveil. That Job had penetrated the secrets of the heavenly mechanism, we do not affirm: but his expressions clearly sustain that truth as to a grand centre, which has only of late been accepted. May we not legitimately suppose that the glorious Being who hath not only framed the heavens in all their vastness, but hath also given delicate structure to an insect's wing and enriched the lily with its beau-

ty and its fragrance, would give with equal condescension, to subserve ultimately a moral purpose, a prophetic series of truths in the economy of the universe? Accepting prophecy as valid in relation to the human race, is it entirely improbable that He who has given glimpses of unforeseen changes in distant centuries of national histories, would vouchsafe some gleam of those facts or laws in the amplitude of space and the multitude of systems, which progressive science should ages afterwards fully interpret? As He has given the greater, we may surely anticipate the bestowment of the lesser; as He has revealed distant secrets in the *moral* universe which we readily accept, may we not assume the probability of his giving glimpses of realities also in the *material* universe?

Not only is the language of Job very definite, but its precision is beginning to be recognized as in harmony with scientific discovery. The more we learn of the mechanism of the heavens, the more significant does Job's inquiry become. For many centuries, mystery so shrouded the question "Canst thou bind the sweet influences of Pleiades or loose the bands of Orion?" that men concluded it was meaningless. It is now intelligible. The word rendered Pleiades—*Chimah*, in the original, while held by some to represent a "heap," or "group," is said by others to mean literally a *hinge*, that around which other bodies turn or move. "The sweet influences" are "the *ties*," or the strong forces of *Chimah*; and the phrase legitimately suggests the idea of a controlling power which connects with this centre the circling

march of the universe. "Truly, there are glories in the Bible on which the eye of man has not gazed sufficiently long to admire them; and there are difficulties, the depth and inwardness of which require a measure of the same qualities in himself. There are notes struck on places, which, like some discoveries of science, have sounded before their time, and only after many days have been caught up and found a response on earth. There are germs of truth which, after a thousand years, have yet taken root in the world." And are not Job's questions chords struck long before their time, and only now is the responsive note beginning to be rightly heard and understood!

Still grander and more imposing is the conception of the universe to which recent discoveries have led us. Its immeasurableness is overwhelming. The naming of the stars is not within the compass of human effort. It is the prerogative of the Creator alone to comprehend "the All." While the astronomer who neglects the guidance of the Bible is powerless amid the mysteries of numberless stars, the student who accepts its teaching, while he traverses space, is humble, and adores the mighty One by whom all is upheld and controlled. He finds in stars rising above stars, and spreading beyond all that the telescope can reach, but one stupendous illustration of the Bible announcement as to the unity of all that is visible or faintly shadowed. Both the works and the Word of God are revealing to us, by their blending rays, the grand truth, that the magnificent array of worlds which has fallen within the sweep of human scrutiny, may after all

be to the whole of God's material creation but as a leaf to the forest or a grain of sand to the globe. Vaster systems lie beyond, differing from one another, in all probability, not only in mass and form, but in nature. Much as astronomers have measured, it is as nothing to what can be but dimly seen by them, or lies altogether hidden from their view. System rises beyond system, until survey fails. Vast as are the dimensions of our solar system, it almost disappears in the seeming illimitableness of other sun-systems. After we have struggled to master their magnitudes and survey the space which they occupy, we are confounded and paralyzed by the still greater task to conceive what "the All" must be, when we find that the whole system of stars of which our sun is part is only a small fragment in the far-sweeping frame of which the star system consists. Truly, apart from the Bible, there is no grander nor more impressive subject of study than the immensity and the structure of the heavens, as unfolded in the occasional expositions of astronomers during the last hundred years, or rather since Wright of Durham, in 1750, enunciated his theory of the construction of the universe. There is discoverable a oneness, or unity, through all this stupendous vastness, which is inexpressibly overawing. Its contemplation compels stillness; it renders mind motionless. Measureless, exhaustless—to us incomprehensibly infinite, yet harmonious—the universe overpowers the imagination itself, until, guided by the Bible, we turn in our helplessness to the Creator and Preserver of all as the Lord God omnipotent reigning, and are satisfied by finding that

our ignorance is lost in the fulness of his infinite wisdom. Entranced by harmony of universal movement and overawed by measureless extent, overburdened thought can find appropriate outlet only in the language of the angels' song, "Great and marvellous are thy works, Lord God Almighty, in wisdom hast thou made them all." Rev. 15:3.

## II. UNITY IN THE STRUCTURE OF THE GLOBE, AND IN ITS LIFE-FORMS.

The unity visible in the mechanism of the heavens is no less distinctly recognizable in the mechanism of the earth. What astronomy is revealing in one department, geology is revealing in the other. While the facts of astronomy lie in the area of immeasurable space, and the facts of geology in the area of yet indefinite ages, PURPOSE has always indubitably appeared in both. Strata separated by long periods are yet bound together by an evident design, which, prevailing alike in gentle and in tumultuating movements, includes islands and continents, and is ever apparent in crystallization, in mineral aggregation, in fusion by heat, in processes of cooling, and in the storage of the globe in relation to the wants of man. The gold, the silver, the iron, the slate, the coal, the limestone, the salt, and other metals and minerals, all presuppose in their allocation and disposition a guiding power, and point anticipatively to a period of uses. They are prophetic of man's appearance. His advent at least is their explanation. Man's presence, with a bodily structure to seize these materials, and an intellect to develop

and combine their applications in arts and manufactures, shows not only a beautiful harmony in the whole fabric, but how little have the earth and man been dependent for their present constitution and connection on the chance movements of blind force.

As this part of the subject will fall to be more fully considered when we examine the preparation of the earth for man, we may omit further reference to it here.

The unity visible in the structure of the globe, is no less conspicuously manifest in the LIFE-FORMS which are represented by the fossils of succeeding ages, and by now existing plants and animals.

Widely-separate rock formations distinctly show continuity of life-forms. Though disconnected by descent, they are one in typical outline. There is such similarity in general structure, that the idea of PLAN cannot be discountenanced without a violation of the common principles of observation and inference. Each life-age has been prophetic of that which is to follow. Animals of advanced structure in the one age, give place to animals of still higher form and greater beauty in the next, but not always of greater delicacy and intricacy in their anatomical framework, nor more subtle in the play of life-forces, but having new adaptations to climatic and other conditions. This progression has culminated in man.

Agassiz, while acknowledging that there is evidently an advance from lower to higher animal forms—that there is increasing closeness of structure to those now existing, and that especially among vertebrates there is a growing

likeness to man—yet denies that these connections are, in any degree, the consequence of parental descent. “The link,” he says, “by which they are connected, is of a higher and immaterial nature, and their connection is to be sought in the view of the Creator himself, whose aim in forming the earth, in allowing it to undergo the successive changes which geology has pointed out, and in creating successively all the different types of animals which have passed away, was to introduce man upon the surface of the earth. Man is the end towards which all the animal creation has tended, from the first appearance of the first Palæozoic fishes.”\*

Cuvier and Hugh Miller may be held as representing the same conclusions, though based on a lesser area of fact and observation, and Professor Owen has strikingly enforced them. It is indeed difficult to conceive of the utter absence of *purpose* in the mind of the Deity, and that man was never foreshadowed in the animal structures of succeeding ages. Although we cannot discern and describe the process by which natural laws or secondary causes have educed the results which appear, we may rest assured that a presiding Intelligence directed them all. “But if, without derogation of the Divine power,” says Professor Owen, “we may conceive of the existence of such ministers, and personify them by the term ‘Nature,’ we learn from the past history of our globe that she has advanced with slow and stately steps, guided by the archetypal light amid the wreck of worlds, from the first embodiment of the vertebrate idea under

\* Agassiz and Gould’s “Comparative Physiology,” p. 417.

its old ichthyic vestment, until it became arrayed in the glorious garb of the human form.”\*

The same system that gives symmetry, gracefulness, and beauty to the cedar, the vine, and the rose, built up in olden eras the gigantic tree-ferns. The earliest shells that have been found protected their inmates like species now living; and the first spiral shells discovered were shaped by the same mathematical principles by which, in our seas, molluscs are at the present day regulating their dwellings. The vertebral columns of fishes, birds, and quadrupeds, and even the teeth of extinct animals, are all constructed on a definite plan or model. In both animal and vegetable physiology there are revealed those minute mechanisms which no less strikingly attest unity of plan. So abundant are the details and so manifold the microscopic marvels which here meet us, that we become bewildered by what is numberless, as in astronomy we are overawed by vastness. Those who have made the greatest discoveries, and who still prosecute exact researches, should be the readiest to say with Dr. Carpenter, “And when the physiologist is inclined to dwell unduly upon his capacity for penetrating the secrets of nature, it may be salutary for him to reflect that, even when he has attained the farthest limit of science, by advancing to those general principles which tend to place it on an elevation which others have already reached, he yet knows nothing of those wondrous operations which are the essential parts of every one of those complicated functions by which the life of the body is sustained.

\* Professor Owen’s “Discourse on Limbs,” p. 86.

Why one cell should absorb, why another that seems exactly to resemble it should assimilate, why a third should secrete, why a fourth should prepare the productive germs, and why of two germs that seem exactly similar, one should be developed into the meanest zoophite and another into the complex fabric of man—are questions that physiology is not likely ever to answer.”\* While freely admitting that mysteries, which will probably for ever baffle human intellect, shroud many exquisitely beautiful processes, we see enough to constrain us to acknowledge a community of structural arrangement, and to accept the doctrine of an all-pervading unity in life-fabrics.

Permeating these, are heat, light, electricity, magnetism, as correlated forces; and the discovery that these different physical forces are mutually convertible—that they can pass into one another—or, in other words, that all force is the same force—has placed in an entirely new light the unity of the globe. These forces are so simple, yet so powerful in their combinations, and are so universal in their diffusion, as they connect the inorganic and organic fabrics, that the doctrine of unity is rising with a magnificence which surpasses that even of endless worlds in harmony, because they bear us on more directly to the mind of God. “And even if we cannot certainly identify force in all its forms with the direct energies of one omnipresent and all-pervading Will, it is at least in the highest degree unphilosophical to assume the contrary, to speak or to think as if the forces of nature were

\* “Animal Physiology,” p. 592. Bohn’s Edition.

either independent of or even separate from the Creator's power."\*

While welcoming evidence of the correlation of forces, and while admitting, to a certain extent, that matter and force are inseparable, and that they have some intimate connection with the animal frame, we deny that they either sustain or subordinate mental force, or that they are "the all" of spiritual life. There are facts in mental history which a purely materialistic philosophy can never explain. One of these is a belief in the immortality of the soul. Another is that we are free agents, and are morally responsible for our actions; and intimately connected with these two is the idea of a God almighty and omnipresent. Matter and force, however inseparable, cannot in their very nature produce such moral results as these. Vital force is essentially different from purely physical force. "It is one thing to admit that the vital and active energies of the living being are carried on by means of the forces of inorganic nature, and another thing to assert that any mere combination of these forces produces life."† Vital properties are superadded; they are not permanent. They are removed at death, and do not reappear. "The material properties belong to the matter, whether living or dead," says Dr. Beale, "but where are the vital properties in the dead material? If physicists and chemists would only restore to life that which is dead, we should all believe in the doctrine they

\* "Reign of Law," by the Duke of Argyll, p. 122.

† See a very able article in the "British and Foreign Evangelical Review," July, 1872, by Professor J. R. Leebody.

teach.”\* As we are not discussing materialism, we follow its conclusions no farther. We accept almost all that it teaches physiologically regarding the connections of the organic and inorganic, and the exposition which it gives of the unity of our globe and of its life-forms; but we refuse to stop here, because there is a psychological or spiritual sphere in which the phenomena of matter and force are comparatively subordinate. Psychology has its own laws, and recognizes a higher than a materialistic government. We rise from the lower unity to that which is wider, more lasting, and more sublime. In the intimate connection of the material with the intellectual and spiritual—of the outer world with the “world within”—there is a unity of profounder interest than that which the physical universe alone exhibits, and that interest is intensified when we separate ourselves altogether from what is external, and expatiate with freedom in the domain of the invisible. As we ascend from the lowest instinct in animals to reason and faith in man, we infer the legitimacy of still higher advances. We cannot stop with man as the terminating link in the series of rational and accountable intelligences; we cannot admit that his horizon is the limit of moral agency in the universe. Analogy, as our guide, gives to us an upward impulse which we cannot check without doing violence alike to the expositions of science and Scripture. What is dim to reason, Revelation makes distinct. The Bible guides us with steady step into the invisible, and it describes existences in it with as much historical definite-

\* “Protoplasm, or Life, Matter, and Mind,” p. 27.

ness as when it places before us facts which lie within the easy apprehension of the senses. "Thrones, dominions, principalities, and powers" are described as distinct representatives of spiritual intelligences, or celestial dignities, or the higher and highest essences of the universe; order reigns there, unity prevails, as with one mind they obey God. A system of beings is revealed to us, vast, mysterious, yet harmonious, of which science can take no cognizance. The sun is not its centre, nor is Alcyone. The Pleiades do not reflect its splendor, nor can astronomers define its outline or estimate its glories. Its "thrones and dominions" rise illimitably until they approach the omnipotent Adonai, in whom and by whom and for whom they all consist.

When astronomy, geology, chemistry, physiology, and other correlated sciences, are thus associated with what the Bible reveals in the unseen, we may safely rest in the light of that Word which reveals a glorious Being, who sees the end from the beginning, and who has in matchless wisdom first instituted the design to which every fact, and law, and event has been throughout conformed, and has given to all his works a unity consonant with that of his own attributes.

## CHAPTER V.

## SCRIPTURE ALLUSIONS COINCIDENT WITH FACTS IN NATURAL SCIENCE.

The Bible frequently makes allusions to the laws of nature, their operations and effects. But such allusions are often so wrapped in the folds of the peculiar and graceful drapery with which its language is occasionally clothed, that the meaning, though peeping out from its thin covering all the while, yet lies in some sense concealed until the lights and revelations of science are thrown upon it; then it bursts out and strikes us with exquisite force and beauty.—LIEUTENANT MAURY.

THERE are allusions in the Bible, written centuries before astronomy had given a glimpse of the structure of the universe, or geology had revealed the evolutions of the globe, or chemistry any of its constituent elements, which have only of late become intelligible and been recognized as perfectly exact. The coincidences of Bible statements with facts in natural science are so remarkable, and comparatively so numerous, that, when combined, they constitute a powerful argument for the reliableness of the whole book. Although the Bible does not teach science, it cannot be admitted to contradict its discoveries. The coincidence in some instances may seem to be remote or fanciful, but it is not on that account to be rejected. New discoveries may remove doubt and reveal long-hidden connections.

We have already noticed (1) the long-mysterious questions in the Book of Job regarding the Pleiades, as

enriched with unexpected lustre by the light of modern astronomy ; and (2) the statements in the first chapter of Genesis regarding the distinctive facts in the natural history of "the grass," "the herb," and "the fruit-tree," as reaching that which botanists have made the basis of a truly scientific classification. Without further advert-  
ing to these allusions, we submit the following coincidences :

3. "And God said, Let there be a firmament in the midst of the waters, and let it divide the waters from the waters. And God made the firmament, and divided the waters which were under the firmament from the waters which were above the firmament." Gen. 1:6, 7. This harmonizes with what is known of the processes of evaporation to which the clouds are subject as they float above us—lakes of water in the azure vault. The firmament sustains the waters collected in its scattered clouds, and separates them from those resting on the surface of the earth. Take, in connection with this, what Solomon has written, "All the rivers run into the sea ; yet the sea is not full ; unto the place from whence the rivers come, thither they return again," Eccles. 1:7 ; and we may fairly press the question, Can any brief description more exactly set forth what has been ascertained as to the settled course of evaporation ?

4. The passage in Ecclesiastes regarding the separation of particles of water from the rivers and the sea, has an intensified significance when placed beside that other statement in Job regarding the weight of the atmosphere : "For he looketh to the ends of the earth, and seeth un-

der the whole heaven ; to make the weight for the winds ; and he weigheth the waters by measure." Job 28:24, 25. This reference to the "weight of the winds" dimly indicates that simple yet beautiful arrangement in the atmosphere which the experiments of natural philosophy have made known, and of which the barometer is a simple illustration. In the still atmosphere there slumbers amazing power ; it has a weight, or substantiality, by which it upholds the clouds or the waters ; and there is in its movements a force which is appalling when in tempest it rushes hither and thither, distributing desolation and death. In that silent process by which the clouds are uplifted, there is put forth in a single year a weight or an amount of force that is almost incredible ; it has been calculated by Arago as greater than the united strength of all the nations of the earth if put forth for twenty thousand years. And can any history of rivers be more definite and succinct than that which is given in Ecclesiastes, when they are represented as hasting to the sea from the hills and the clouds, and as again returning to renew their course ?

5. In his very interesting and instructive work, "The Physical Geography of the Sea," Lieutenant Maury has vividly described the currents in the atmosphere from the equator to the poles, and from the poles to the equator—the one current ranging along a lower level, the other on a higher, and both exchanging their heights at the equator and the tropics—like overlapping belts on higher and lower wheels in a factory—while at the north and south poles they move from right to left and left to

right respectively, around a circular mass of air, and are steady in their course as the Gulf Stream.\* Unlike the trade winds, they know no rest. Their circuit is ceaseless ; and no one can examine the facts which have been ascertained and the principles which they represent, without delighting in the new meaning which lights up that Scripture sentence, so long unintelligible, "The wind goeth toward the south, and turneth about unto the north: it *whirlcth* about *continually*; and the wind returneth again according to his circuits." Eccles. 1:6. This is truly an accurate generalization, and may well arrest the attention of those who believe that every line of the Bible has been long since exhausted of all its truth.

6. There is an allusion, in the account which has been given of the triumph by the Israelites over the Amorites, the accuracy of which can be aright appreciated only by those who bear in mind how limited was the astronomical knowledge of that period, and who set aside the physical difficulties of the narrative by which its light is partly hidden: "Then spake Joshua to the Lord, in the day when the Lord delivered up the Amorites before the children of Israel, and he said in the sight of Israel, Sun, stand thou still upon Gibeon; and thou, Moon, in the valley of Ajalon. And the sun stood still, and the moon stayed, until the people had avenged themselves upon their enemies." Joshua 10: 12, 13.

It is of course well known now, that the sun and moon are so closely associated that the staying of the one implies the staying of the other; but who, at that

\* See Chapter on the Atmosphere.

time, contemplated such a combination? Not till after long ages was their connection revealed by astronomy. While in other books called "sacred," the strangest mistakes are made as to the sun and the moon, their exact relation is in this early narrative distinctly acknowledged. The sun, it is true, is related to other planets in our system; but in this incident the earth is the stand-point, and therefore appropriately are the moon and the earth conjoined. The sun visibly arrested in the heavens, was all that was essential for the leader of the Israelites; yet the collateral fact is announced—the moon staying in the valley of Ajalon. This clear association of facts which were for ages secluded from observation and experience, gives presumptive evidence for the Divine inspiration of the Scriptures. It is common to urge on our attention the physical difficulties which the narrative represents; but is there no obstacle to the ridicule with which skepticism has treated this record, in the insight which this combination shows? Even admitting that the writer did not quite comprehend the truth which he set forth, or that his imagination, not his intellect, was the origin and medium of its expression, how account for the fulness and the exactness of the statement itself? And is it not in thorough accordance with other allusions to what lay beyond the reach of the age in which he lived? As to the miracle itself, there are many difficulties, it must be acknowledged when an exhaustive exposition is attempted. In its full acceptance, it involves the temporary arrestment of great physical laws; and, therefore, explanations have been offered to the effect

that the standing still was not real, but apparent, through a continuance of light protracted by some of the ordinary processes of refraction. Literally and absolutely, there could be no arrestment, because the sun does not travel. Prolongation of light was all that was necessary to complete the victory. The tempest of hail, and probably of meteoric stones, which is described, favors the supposition of the great astronomer, Kepler: "They will not understand," he says, "that the only thing which Joshua prayed for was that the mountains might not intercept the sun from him. Besides, it had been very unreasonable at that time to think of astronomy, or of the errors of sight; for if any one had told him that the sun could not really move in the valley of Ajalon, but only in relation to sense, would not Joshua have answered that his one desire was that the day might be prolonged, so it were by any means whatever?"

Dean Stanley, in his well-known and deservedly-valued work, "Lectures on the Jewish Church," while taking a similar view, is apparently inclined to admit a poetical coloring beyond what the narrative warrants. "These words in the book of Joshua," he says, "were doubtless intended to express that, in some manner, in answer to Joshua's earnest prayer, the day was prolonged till the victory was achieved. How, or in what way, we are not told: and if we take the words in the popular and poetical sense in which, from their style, it is clear that they are used, there is no occasion for inquiry. That some such general sense is what was understood in the ancient Jewish church itself, is evident from the

slight emphasis laid upon the incident by Josephus, and the Samaritan book of Joshua ; and from the absence of any subsequent allusion to it (unless, indeed, in a similar poetic strain) in the Old or New Testament." He adverts to Habakkuk 3 : 11, and makes the following apt quotations from Josephus, in a note : "He then heard that God was helping him, by the signs of thunder, lightning, and unusual hailstones ; and that the day was increased lest the night should check the zeal of the Hebrews. That the length of the day did then increase, and was longer than usual, is told in the books laid up in the temple."\* The Samaritan book of Joshua says that "the day was prolonged at his prayer," and the opinion of Dr. Chalmers is to the same effect, but is stated with a fuller and firmer reference to the literal aspect of the narrative. "The shower of hailstones," he says, "was miraculous ; and, in regard to the much-controverted miracle of the sun and moon standing still, I have no doubt it was so to the effect of the sun-dial being stationary, which leaves room for the speculation that it may have been by atmospherical refraction, or in other ways. I am not so staggered by this narrative as to feel dependent on the usual explanations. I accept of it in the popular and effective sense, having no doubt that to all intents and purposes of that day's history, the sun and moon did stand still, the one resting over Gibeon, the other in the valley of Ajalon."† Even assuming that the storm was in full accord with the laws of nature,

\* "Lectures on the Jewish church," pp., 245, 246.

† "Daily Scripture Readings," vol. 1, p. 395.

there is in the hail, in the meteoric stones, in the gloom, in the refraction of the light, (probable, at least,) and in appearance of the moon, taken along with the contest in the elements, and with the prayer of Joshua, such a combination of facts as places the whole narrative for moral purposes under the direct guidance of the Great Governor of the universe. In short, there is in the narrative nothing to weaken the force of the evidence for the truth of Scripture which has been presented to us in the unexpected union of sun and moon in Joshua's petition, when ordinarily the sun alone was necessary for the miracle. In one of a very able course of lectures on Christianity and Skepticism, the Rev. Dr. Tyler, while he has himself "no difficulty in accepting" what is stated as simple matter of fact, and "true in the fullest and most literal sense, when interpreted according to the common laws of language," offers the following summary of Keil's suggestions on the passage: "And the Bible always describes natural phenomena as they *appear*, and in the language of the people, not according to the doctrine or the language of physical science. But this passage is expressly cited from a book of poems, the book of Joshua. The language also is metrical, and admits of being arranged in the form of verses. It has the parallelism and the other characteristic marks of Hebrew poetry; and, irrespective of their theological opinions, critics now generally agree to read it as a poetical quotation. It must, therefore, be interpreted, not as prose, but as poetry; not as a part of the narrative by the sacred historian, but as a fragment from some Hebrew bard, cited

by way of embellishment. And so interpreted, it means, perhaps, no more than this: So long did the day seem to those who were engaged in the conflict, and so complete was the destruction of the enemies of Israel, that, in the strong language of a bold and contemporary poet, it might be said the sun and moon stood still in the heavens, and the day was prolonged far beyond its usual duration, till the confederate host was utterly extinguished. So, in the song of Deborah, it is said that 'the stars in their courses fought against Sisera,' upon which no one would think of putting any other than a poetical interpretation. And when Isaiah prayed to the Lord in the name of his people, 'Oh! that thou wouldest rend the heavens and come down, that the mountains might flow down at thy presence!' or when David sings, 'In my distress I called upon the Lord, . . . he heard my voice out of his temple, . . . he bowed the heavens also and came down, . . . he sent from above, and took me; he drew me out of many waters;' who is there who ever thinks of understanding these words literally, as denoting an actual rending the heavens, or a desire that God would actually descend from heaven and stretch out his hand to draw David out of the waters?"

But Keil, in his Commentary, is even more explicit and decided than the summary by Dr. Tyler at first sight indicates. "We do not hesitate," he says, "to believe in such a miracle in its fullest extent, whenever this is the meaning obtained from a literal interpretation of the words, or when it can be exegetically proved to be the only admissible and necessary one. For even though, in the

whole of the world's history, no other such miracle may ever have occurred, yet in the fact that it only happened once, there is just as little to disturb our faith as are objections founded upon the invariable order with which the heavenly bodies revolve according to the eternal laws implanted in them by the Author of Nature. These laws, in our opinion, are nothing more than terms by which men are accustomed to designate certain manifestations of the creative power of God, the nature of which no mortal has explored ; and we can therefore believe that the Creator, in his omnipotence, would depart from the so-called laws of nature, whenever in his inscrutable wisdom he saw that it was necessary for the salvation of men, for whose redemption he did not even spare his own Son." He proceeds to state that the physical difficulties in the way of accepting this narrative, and the fact that no account of it is met with in the annals of other nations, would not in the least excite any doubts in his mind of its historical veracity : yet he has come to the conclusion which we have already set forth.

Even if Keil's view be adopted as the most satisfactory, we hold that the narrative or quotation is so adjusted in its terms as to be placed for our guidance in an unerring Bible ; and the connection of the sun and the moon is so divested of all that is incompatible with fact, that what is recorded harmonizes exactly with the astronomical conditions. For our own part, we prefer the inference that the day was prolonged by extraordinary conditions of the atmosphere, and by the refraction of the light, or by some other such cause, producing sta-

tionariness for a time in the sun-dial. Be the explanatory facts what they may, the result was miraculous, and in answer to Joshua's prayer.

There are other incidental allusions which, while they seem to be poetical, and fit only to be explained by its imagery, or to be regarded as of practical value chiefly in giving pleasure, may yet be discovered to be substantially matter of fact, and to be connected, as by romance, with some of the most wonderful operations of nature. What has already happened in some instances, may be applicable in many. It will be admitted that there is, possibly, much more in many passages than figurative language, and that, without any undue stretch of the ordinary laws of criticism, they may yet shed light on some law or fact in science. Difficulties which Christian apologists have endeavored to remove under the allegation that the language is *poetical*, have already evanished in the light of ascertained results.

7. The earth, long acknowledged by many to be flat and square, or circular, and often made the subject of absurd expositions, was very accurately and very beautifully described by Job, in that olden record, "He stretcheth out the north over the empty place, and *hangeth* the *earth upon* NOTHING. He bindeth up the waters in his thick clouds; and the cloud is not rent under them." Job 26:7, 8. Sir Isaac Newton could not have more succinctly stated the position of the earth, nor could any of our meteorologists give fitter outline of our cloud system than this and similar descriptions embody. Again, taken in connection with that vivid delineation of the

close of the present dispensation by St. Peter, to which reference has been already made, the following statement by Job indicates the condition of the earth's centre. Whether or not he perceived its force, it certainly harmonizes with the most recent findings of science: "As for the earth, out of it cometh bread; and under it is turned up as it were FIRE." Job 28:5. Further, the agencies affecting the whole surface of the earth and giving character to its scenery, while explaining its history, are vividly set forth by Job, when he says, "And surely the mountain falling cometh to naught, (or fadeth,) and the rock is removed out of his place. The waters wear the stones; thou washest away the things which grow out of the dust of the earth." Job 14:18, 19. The very processes which modern geologists are engaged in keenly discussing, as accounting for the variety of our Scottish scenery, are specified in the language of the patriarch. Comprehensively, these delineations in Scripture may possibly represent universal geologic movements.

8. But still further, while the changes proceeding on the land-surface, in relation to its mountains, valleys, and rivers, are incidentally noticed in such general terms as any geologist might employ, the character of the great ocean itself is found to be in strict conformity to the command of God, that "the water bring forth *abundantly* the moving creature that hath life." But this was not done until a separation had been made between the sea and land, as on the third day, and that river-system had been established which is related to the saltness of the sea, the maintenance of much of its life, and the processes of

evaporation necessary both for sea and land. The theories as to the origin of the sea's saltness we need not here discuss; it is enough that the constitution which the Creator has given to the ocean fits it for abundant life. *Historically*, the record in Genesis is true. The wisdom and goodness of the Great Ruler are visible in every process, and the prolific ocean now quivers with life. The ABUNDANCE of the living is one of the greatest "wonders of the deep," which the microscope has revealed in its own almost boundless domain.

9. There are various other passages whose meaning has of late become more distinct in the light of science; as, for example, Leviticus 17:11, which recent physiological inquiries have illustrated; and also Job 14:7-9, and Job 28:1-6, in which we have what have been regarded as the oldest and most instructive notices of Natural History in existence; but it is scarcely necessary to press them into this general argument.

Although these *allusions* in the Word of God, as coinciding with *facts* in his works, may not be regarded by many as conveying any very decided evidence of a positive kind for the harmony of both; yet it will be admitted they are of special subsidiary value when contrasted with those uninspired histories of the world which have been given forth in succeeding ages and in different lands, not one of whose general outlines can, for an instant, bear the application of those crucial tests which even the allusions of Scripture not only sustain but welcome, as often, if not always, more fully eliciting their meaning.

Let it be understood, that it is only on this ground we have submitted these considerations for acceptance; and that we do not regard them as constituting more than incidental or subordinate proof. While we freely acknowledge that the Scriptures represent facts in those aspects which are most familiar to ordinary observation, and not in their more recondite or exactly scientific relations, we may legitimately reason that these references or allusions are indicative of the accuracy and value of the Bible, when we find it covering at once the results of common experience and the more recent discoveries of science.

## CHAPTER VI.

## THE GEOLOGIC FULNESS OF TIME WHEN MAN APPEARED.

It is surely no incredible thing, that He who, in the dispensation of the human period, spake by type and symbol, and who, when He walked the earth in the flesh, taught in parable and allegory, should have also spoken in the Geologic ages by prophetic figures, embodied in the form and structure of animals.—HUGH MILLER.

IN the distant past, not a trace of man's presence has been found. He is "of yesterday." While the stone volume has preserved for us the slight impressions of the Annelid and the foot-trail of perished Molluscs in the soft mud over which they crawled; while it has restored to us in perfect shape the delicately-constructed many-lensed eye of the Trilobite, and has kept exact record of the death struggles of fishes on the sands of olden seas; while it has delineated on carboniferous columns fern-leaves exquisitely delicate in structure as the finest species of modern times; and while the rain-drops of long bygone ages have left imprints which reveal to us the course which even the wind followed; not a trace of man is visible. Only at the close does he appear; science finds him where the Scriptures placed him, and sees in him the crown which continuous type had long foreshadowed.

Not only are there advances in animal structure which are prophetic of man's higher organization, but, through

what at one time seemed utterly confused and meaningless, there is abundant evidence of definite purpose in storing the earth with those plants and animals which are best fitted to meet man's necessities. He was not introduced to a barren region or an empty home. There clearly appears, about the time of his taking his place on the earth, such a series of adjustments for his use and comfort, as cannot be even plausibly connected with the chance struggles of natural selection. The plants and animals which are discoverable only in comparatively recent periods, are so numerous and so fully suited to the wants of man, that we cannot find an explanation of this harmony of production apart from PURPOSE in relation to him. Plants, fishes, quadrupeds, and even the delicate distribution of colors, furnish evidence which is by far too commonly overlooked. We can do little more than allude to some of the leading facts which have been brought within the easy reach of every inquirer. Agassiz and Hugh Miller have given special prominence to the proof of a gradual preparation of the earth for man.

1. *As to Plants.*—Not until we enter on the Tertiary period do we find flowers, amid which man might have profitably labored as a dresser of gardens, a tiller of fields, or a keeper of flocks and herds. Not, indeed, until late in this period, is there any appearance of several orders and families of plants which are useful to man, and which contribute largely to his pleasure. Among these orders we may mention that of the *Rosaceæ*, to which gardeners invariably look with unflinching interest. It includes the apple, the pear, the cherry, the plum, the

peach, the apricot, the nectarine, the raspberry, the strawberry; nor ought we to omit reference to those delightful and useful flowers, roses and potentillas, the history of which commenced with that of Man.\*

It is no less remarkable that the true grasses—a still more important order—including the grain-giving plants, oats, barley, wheat, and others, which sustain “at least two-thirds of the human species,” and which also, “in their humble varieties, form the staple food of the *grazing* animals,” do not appear until close on the human period. There are other plants also which add to man’s comfort or gratify his senses, which are not found in the fossil state—lavender, mint, thyme, hyssop, basil, rosemary, marjoram. They have apparently been introduced to prepare for man their varied fragrance and virtues.

2. *As to Fishes.*—And not until this recent period did the sea become the home of *fishes* that could prove nutritious or tasteful to man. A review of the various changes which have appeared at different periods in the history of fishes, leads to this inference: Professor Owen has distinctly stated “that those species, such as the nutritious cod, the savory herring, the rich-flavored salmon, and the succulent turbot,” displaced immediately before man’s advent those species which were coarse and unsuitable food; and that then and subsequently they became very abundant.

3. *As to Quadrupeds.*—While we admit the weakness of merely negative statements in establishing any fact, there is yet so much that is forcible in the absence from

\* See “Testimony of the Rocks,” p. 48.

the fossil state of many of those life-forms which now surround man, that we are justifiable in explicitly referring to it as probable evidence. No geologist denies that the gigantic forms of mammalian life, by which the Miocene and Pliocene period were distinguished, ceased near the time of man's appearance; and that only a few of those larger animals remained which were not inconsistent with his safety and comfort. Nor will any hesitate to admit that, as new plants then appeared, so also quadrupeds not known before took the place of those which had passed away. Among them the sheep is conspicuous, not only for its own qualities, but for the extent to which it has ever ministered to the various wants of man. Hugh Miller, with evident delight, describes the peculiar adaptation of this favorite animal to the necessities of a large proportion of the human race, as "that soft and harmless creature that clothes civilized man everywhere in the colder latitudes with its fleece—that feeds him with its flesh—that gives its bowels to be spun into the catgut with which he refits his musical instruments—whose horns he has learned to fashion into a thousand useful trinkets—and whose skin, converted into parchment, served to convey to later times the thinking of the first full blow of the human intellect across the dreary gulf of the middle ages." While some refuse to acknowledge the importance of the contemporaneous connection with man of such plants and animals as we have specified, no theistic evolutionist of note for attainments in science hesitates to admit that they were at least indirectly preparatory to man's advent.

4. *As to Color.*—There is distinct evidence of preparation for man in the distribution and adjustments of color, which alone must interest every student of the Bible and the natural sciences. The very *appearance* of all things has been adapted to the human constitution. This important fact has been commonly overlooked. The notion had long prevailed that there was no law in the distribution of colors; but this error has been corrected. The subject has been elaborately discussed by Dr. Dickie and President M'Cosh, who have shown that there is, in flowers, a permanent relation between *form* and *color*, and an unfailing harmony in the distribution of colors in the same plant.

True, it cannot yet be demonstrated that these relations rest on a scientific basis, so as to connect the adjustments in colors with æsthetic tendencies or laws in the human mind; yet the evidence warrants the conclusion that there has been a gradual evolution of forms and colors until those results have been educed most pleasing to the eye, and of which there is no manifestation until about the time when man was created.

Assuming that in successive geologic periods plants have been formed according to the same law—an assumption fairly warranted by facts—Dr. Dickie has inferred that the association of colors will be similar—that is, they will harmonize with the *forms* of the plants. Accordingly, the prevailing colors in any geologic period may be determined by the prevailing forms of its vegetable life. In the earlier geological periods—when ferns were the chief forms—green, purple, and russet, gave

the landscape a sombre character; and in a subsequent stage, when cone-bearing plants rose everywhere, the general dulness was but little lessened. Not until the beginning of the chalk formation, is there a very evident advance towards existing forms and colors. Not, indeed, until the latest period—that nearest to man—do we find the flowers which most enhance our pleasures, invested with their fascinating hues, and so arranged as to exhibit those principles of science which schools of art are struggling to represent. “In a skilful piece of art, the more prominent figures are made to rise out of colors which attract no notice. It is the same in the beautiful canvas which is spread out before us in earth and sky. The ground-colors of nature, if not all neutral, are at least all soft and retiring. How grateful should we be that the sky is not usually dressed in red; that the clouds are not painted crimson; that the carpet of grass on which we tread is not yellow, and the trees are not decked with orange leaves! The soil in most places is a sort of brown; the mature trunks of trees commonly take some kind of neutral hue; the true color of the sky is a soft blue, except when covered with gray clouds; and the foliage of vegetation is a refreshing green. It is out from the midst of these that the more regular and elegant forms, and the gayer colors of nature, come forth to arrest the attention, to excite and dazzle us, not only by their own splendor, but by comparison and contrast.”\*

Pains must be taken by art-students to determine what colors should be in juxtaposition, and what kept at a

\* \* Typical Forms and Special Ends,” pp. 152, 153.

distance from each other. In the manufacture of our finest fabrics, and in staining glass for windows, no one neglects those rules which are prescribed by science and sanctioned by experience; but it is only recently in the history of our civilization that we have discovered those principles according to which colors in nature have been associated from the beginning. The colors suit us. They meet our taste; they delighted us in childhood and they please us in our advancing years. Not a flower in the field or the forest, not a colored shell in sea or river, that fails to illustrate or exemplify permanent principles. Even the commonest of all our early favorites shows the beautiful distribution of colors with as much exactness as the cell of the honey-bee or the whorl of the shell its mechanical lines.

How is it that the plants, the land animals, and the fishes, most conducive to man's well-being, only first exist when he comes in view? how is it that the minerals, the metals, the coals, the salt, all the things he needs, are stored within his reach? how is it that not until near the human period, the colors in nature are so harmonized alike in their gayer and their most subdued aspects, as most to give him delight? and how has man become so constituted as to be in such delicate relation to all around him? Surely there is benevolent purpose in all this.

In his well-known work on "The Origin of Species," Mr. Darwin asks us to believe that these beautiful adaptations are not in the least due to design, but to the slow operations and decisions of natural selection, if indeed there can be decision without design. The very colors

which man most admires are, according to this school of theorists, in no way representative of *purpose*. That the sky is blue and not scarlet, that the leaves of the landscape are not yellow and the soil not crimson, are the chance evolutions of this mysterious *something*, which has neither intelligence nor beginning of days. The mere suggestion that all this wealth of beauty in varied colors, and proportion in form, and gracefulness of movement, and the tint of the atmosphere, are in any respect an end and not accidental, Mr. Darwin resentfully rejects. They are with him no part of a *plan*, nor are they *intended* to please. It is really difficult to believe in the possibility of such convictions as are seriously asserted. "Some naturalists," he says, "believe that very many structures have been created for beauty in the eyes of men, or for mere variety. This doctrine, if true, would be absolutely fatal to my theory."\* It comes to this, that the theory which we are asked to accept instead of that record in the first chapter of Genesis, is one which gives beauty without an end, laws without an author, works without a maker, and coördination without design.† He excludes from creation the idea of intended beauty. Man's history began, he knows not how, millions of millions of years ago, in that first germ of life out of which have been developed all plants and animals, by those processes, complicated and undefinable, which transpired, until, at last, he rose on the theatre of life, its crown and glory, "fearfully made" in body and still more mysteriously framed in spirit.

\* "Origin of Species," p. 219. † See Phillips' "Life on Earth," p. 63.

With what majestic comprehensiveness and precision must natural selection have guided all processes and struggles, when the lowest lichen or simplest spore has risen to be the apple tree, the peach, the plum, the nectarine, the wheat, the thyme, and the other grains and herbs necessary for man just before he came; with what precision have the lowest worms risen to be the fishes, the birds, and the quadrupeds he most needed; and with what astonishing parallel exactness have the chemical processes kept pace with all other movements in earth, and sea, and sky, when, in the use of the soil, in the structure of plants, in their form, in their foliage, in their flowers, there issued at last the distribution of those very forms and colors which not only most conduce to man's comfort, but most gratify his taste! In separate spheres and without connection—in the inorganic masses of the globe—in plant and animal life—in the atmosphere and in the heavens—through long, fitful, imperfect, and frequently unfinished processes—natural selection has thus been at work, and without a purpose, or design, or end in any shape, has given to the world its present wondrous structure, and to all life its present subtle characters! Does not this whole theory draw excessively on our imagination, and raise difficulties incomparably greater than all those which Rationalism has conjured up against the miracles of the Bible?

To these questions we shall more fully direct attention at a subsequent stage.

## CHAPTER VII

THE BIBLE ACCOUNT OF MAN'S ORIGIN—THE OPINION THAT HE WAS MIRACULOUSLY BORN—THE THEORY THAT HE WAS NATURALLY DEVELOPED.

What man holds of matter does not make up his personality. Man is not an organism, he is an intelligence served by organs; they are his—not he.—SIR WILLIAM HAMILTON.

HAVING examined the geological evidence, showing the preparation of the earth for the human race, let us next inquire into

## I. MAN'S ORIGIN.

Whence is man? Was he miraculously born of some creature nearly human, as some Christian apologists are disposed to believe? Was he evolved from some germ of life originated untold ages ago, as some naturalists have endeavored to demonstrate? or was he miraculously made of the dust of the earth, as the Scriptures have distinctly affirmed? While we have been taught to accept what the Scriptures have declared on this subject, we are not at liberty to disregard those difficulties which have weighed with others, nor the solutions which have satisfied them. Let us examine those accounts of man's origin which are at present most engaging attention.

1. *The Bible Account.*—It has, at least, the merit of explicitness, and is thoroughly intelligible. "And God said, Let us make man in our image, after our likeness;

and let them have dominion over the fish of the sea, and over the fowl of the air, and over all the cattle, and over every creeping thing that creepeth on the earth. So God created man in his own image: in the image of God created he him; male and female created he them." Gen. 1: 26, 27. "And the Lord God formed man of the dust of the ground, and breathed into his nostrils the breath of life; and man became a living soul." Gen. 2: 7. If these passages teach any truth with greater emphasis than another, it is that, by the creative act of God, man was made perfect in relation to bodily vigor and intellectual capacity. Of the mode by which there arose out of dust a body fearfully and wonderfully made, nothing is told us; but the fact is distinctly stated. A higher being had appeared, connected with the earth and largely dependent on it, and yet not originated by it. The peculiarities of the record are specially noteworthy.

*First*, it is said, "*Let us make man.*" To no other creative act is there the same introduction. Man's appearance is thus separated from all that had gone before. It is made the occasion of a fuller revelation of truth; for a glimpse is given of the great doctrine of more than one person in the Godhead. The doctrine of the Trinity begins thus early to be unfolded.

The *second* peculiarity is in the statement, "Let us make man *in our image*, after [or according to] *our likeness.*" Ingenious and subtle distinctions have been frequently drawn between the descriptive terms, "in our image" and "after our likeness;" but we prefer the opinion of the older theologians, who regard both as com-

bined to give intensity to the same thought. "Image and likeness," says Dr. Hodge, "means an image which is like." God gave to the body a perfect organization, breathed natural life into it, and imparted to "*man*" his "*own image*." This combination of the terms "image" and "likeness" seems intended to express man's personality, and his resemblance to the infinite and uncreated in every way possible with a being finite and created.\* Man, accordingly, though at an immeasurable distance from the Infinite I Am, has knowledge, wisdom, power, and therefore dominion over all that has been placed within the sphere of his influence. As he was intellectual and could *know*, as he was moral and could *love*, he had a sway which no other creature on earth can wield. With these forces combined, he went forth controlling all the resources of nature which were placed within his reach; and in possessing this spirit, he could be rightfully regarded as the lord of this lower world and as the representative of Deity. In further exposition of his character, it is said, "God made man upright." Intellectually and morally he was perfect, his powers were rightly balanced, his energies were consistently directed, and holiness made lustrous all his history. The New Testament sheds fuller light on the inner aspects of his character now, through two parallel statements by the apostle, descriptive of the believer; the one, having "put on the new *man*, which is renewed in *knowledge after the*

\* For a full discussion of this subject, see "Creation and the Fall," by the Rev. D. MacDonald, Excursus I.; "Man, the Image of God," and "Systematic Theology," by Dr. Hodge, vol. 2, pp. 96, 102.

*image of Him* that created him," Col. 3 : 10; and the other, which *after God* is created in righteousness and true holiness," Ephes. 4 : 24.

Man thus connects two worlds, and therein lies his incomparable preëminence ; yet his true superiority arises not from his relations to the living creatures that are around and beneath him, but from his upward connection and his being "in the image" of God the Creator.

The *third* peculiarity is the reference to woman as made also with the same nature and endowments. In the other references to new races in the first narrative, there is no allusion to the female. And not only is Eve spoken of by Adam as "bone of his bones and flesh of his flesh," but she is included in the description as being formed in the image of God. The statement is too emphatic to admit of its being explained away: "So God created man in his *own* image, in the image of God created he him; MALE AND FEMALE created he them." Their equality is here clearly set forth in their origin, in their dependence on God, in their responsibility to him, and in their possession of spiritual privileges. No marvel that Fichte, the celebrated German, marking these realities, and bounding over the barriers of an infidel philosophy, wrote with fervor, "Who then educated the first human pair? A Spirit bestowed its care upon them, as is laid down in an ancient and venerable record, which, taken altogether, contains the profoundest and the loftiest wisdom, and presents those results to which all philosophy must yet return."

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Assuredly, the more closely this singular narrative is

examined, the more deeply impressive does it become, as other and seemingly-distant truths are discovered to be inwrought with it. The mode of man's introduction is perfectly conformable to his lofty personality, as that of the lower animals is to their impersonality. And as man's history, in this dispensation, begins with the constitution of his body, with the in-breathing of life, and the imparting of God's image, so at the commencement of his heavenly history there will again, we are told, be a fashioning of his body "like unto Christ's glorious body, according to the working whereby he is able even to subdue all things unto himself." And the sanctified spirit entering that body shall bear his image: "We shall be like him, for we shall see him as he is." The first stage in man's earthly course is thus typical of that on which he shall enter at the resurrection. Connections that are illimitable and of surpassing interest here open to our view; but to trace them farther is inconsistent with the object of our present exposition.

2. *The opinion that man was miraculously born* next claims our consideration, as having been of late pressed on the attention of the Christian public by some whose sincere acceptance of the Bible as the Word of God cannot be questioned. They suppose that our first parents were not formed at once out of the dust of the ground, but that, in some mysterious way, they were "born" as human, of some of the lower animals. The translator of Lange's Commentary of Genesis seems to entertain this opinion. In a foot-note, p. 211, he says: "But this does not exclude the idea that the human physical was con-

nected with the previous nature, or natures, and *was brought out of them*. That is, it was made from the earth, in the widest signification of the term." And after alluding to the difficulties connected with the idea of an outward image or organization, he asks, "What difficulty or danger, then, in giving to the phrase 'from the earth' the widest sense consistent with the idea of man's having an earthly as well as a heavenly origin?" As the Duke of Argyll in his admirable work, the *Reign of Law*, has given prominence to this interpretation, it is necessary to consider its bearing on the general discussion as to the Bible record. As the reasoning of M. Guizot has formed a serious obstacle in the way of this opinion, it is desirable to reproduce it here. In answer to the question, By what means and by what power has the human race commenced on Earth? he says, "There can be but two explanations of man's origin: either he has been produced by the proper and innate labor of the natural forces of matter; or he is the work of a supernatural power—external to, and superior to, matter. His appearance here below requires one of two causes—spontaneous generation or creation." He argues that, as the earth could not of itself originate man and woman—the human pair entirely formed and full-grown—the only other supposition is, apart from supernatural influence, that they were originated by spontaneous generation. It is only under such a condition that man could have lived or perpetuated himself, and have founded the human race. "Let us figure to ourselves," he says, "the first-born man in a state of early infancy, living, but inert,

unintelligent, helpless, incapable of supplying his own wants, trembling and moaning, with no mother to hear or nourish him." Rejecting this supposition, he insists that the other origin of the human race alone is admissible, and that man's first appearance in this lower world can be explained only by the supernatural fact of creation.\*

The Duke of Argyll pronounces this "a common, but not a very safe argument;" and adds, "To accept the primeval narrative of the Jewish Scriptures as coming from authority, and as bringing before us the personal agency of the Creator, but without purporting to reveal the method of this work—this is one thing. To argue that no other origin for the first parents of the human race is conceivable than that they were moulded perfect, without the instrumentality of means—this is quite another thing. The various hypotheses of development, of which Darwin's theory is only a new and special version, whether they are probable or not, are at least advanced as affording a possible escape from the puzzle which M. Guizot puts. These hypotheses are indeed destitute of proof; and in the form which they have yet assumed, it may justly be said that they involve such violations of, or departures from, all that we know of the existing order of things, as to deprive them of all scientific basis. But the close and mysterious relations between the mere animal frame of man and that of the lower animals, does

\* "Evidemment, l'autre origine du genre humain est seul admissible, seul possible. Le fait surnaturel de la création explique seul la première apparition de l'homme ice-bas."—*L'Eglise et la Société Chrétienne en 1891*. A Translation of M. Guizot's work has been published by R. Bentley, London.

render the idea of a common relationship by descent at least conceivable. Indeed, in proportion as it seems to approach nearer to processes of which we have some knowledge, it is, in degree, more conceivable than creation without any process—of which we have no knowledge, and can have no conception.\*

In what respect M. Guizot's argument is unsafe, does not readily appear. He directly connects the creation of man with the supernatural in that form which the Bible seems literally to describe, and by which the argument is disentangled from those difficulties which a helpless infancy and one of the lower animals as mother present. The anxiety of his grace to secure a safe position between those who accept the Bible statement as it stands, and those who follow Darwin's theory, leads him to enunciate principles, the legitimate application of which is depreciatory of the historical directness of the Scripture narrative. In his attempt to bring the supernatural—that is to say, the superhuman and the supermaterial—"nearer us" than M. Guizot's argument does, or rather to find a place for the formation of man, with as few physiological difficulties as possible, his grace, as appears to us, has quite yielded the key to the Darwinian theorist. While he accepts the primeval narrative as coming from authority, and as revealing the personal agency of the Creator, he not only characterizes as a "puzzle" the reasoning of M. Guizot, that by the exigencies of life the human race must have had a higher beginning than in the helplessness of infancy, but he indicates a prefer-

\* "Reign of Law," pp. 28, 29.

ence for the development hypothesis, as "at least conceivable" and "as affording a possible escape from the puzzle which M. Guizot puts." His grace's interpretation of the words "out of the dust of the ground," has been expressed as follows: "The narrative of creation is given to us in abstract only, and is told in two different forms, both having apparently for their main, perhaps their exclusive object, the presenting to our conception the personal agency of a living God. Yet this narrative indicates, however slightly, that room is left for the idea of a material process. 'Out of the dust of the ground,' that is, out of the ordinary elements of nature, was that body formed, which is still upheld and perpetuated by organic forces. Nothing which science has discovered, or can discover, is capable of traversing that simple narrative."\* "But whatever may have been the method or process of creation, it is creation still. If it were proved to-morrow that the first man was 'born' from some pre-existing form of life, it would still be true that such a birth must have been, in every sense of the word, a new creation. It would still be as true that God formed him 'out of the dust of the earth.' as it is true that he has so formed every child who is now called to answer the first question of all theologies."† His grace prefers the supposition that man was "born" of some animal, as itself made of "dust" or earthly elements, because of the close relations between the mere animal frame of man and that of the lower animals, and because creation *with a process* is more easily conceivable than creation without it.

\* "Reign of Law," p. 27. † Ibid, pp. 29, 30.

Divine interposition is admitted, or it is not ; if it is, much of his grace's reasoning as to the *Reign of Law* is valueless, and the difficulties of the skeptic are not lessened, for he denies altogether the least evidence of the supernatural. If it is not, and if this "new creation" is nothing more than a special or singular result, evolved under the *Reign of Law*, once and for once only, there is not much difference, either historically or morally, between the theory which connects man's birth with one of the lower animals at a time comparatively recent, or places his origin, ages ago, in some germ or simple structure. The chief difference between his grace's interpretation and the theory of Mr. Darwin, which he repudiates, is not so much in principle as in time and process.

Insisting on the truth of Scripture as to a personal Deity, and as to the creation of man, his grace yet leaves it uncertain whether man was born in a state of strength and independence sufficient for every claim made on him, or in the feebleness of infancy, with a hard and constant struggle for existence before him. Nor does he indicate whether about the same time or in the same way the "mother of all living" was born. We are left to infer that there were *two* born, with suitable nearness in time, of some ape, gorilla, or other creature nearly human. Judging from his grace's argument in another work, we should infer that he supposes both Adam and Eve were similarly "born," and that they were endowed at once with so much vigor and so much intelligence, that they could maintain their supremacy over all existences around them. In no other way can we understand his vigorous

reasoning against Sir John Lubbock's theory—a theory in one respect similar to his own—that the human race is descended from some “creature not worthy to be called a man.” In combating Sir John Lubbock's statements, his grace successfully shows that man, with a mind far in advance of the animals around him, could not “afford to lose bestial proportions of body,” and adds: “If the change in mental power came simultaneously with the change in physical organization, then it was all that we can ever know or understand of a new creation. There is no ground whatever for supposing that ordinary generation has been the agency employed, seeing that no efforts similar in kind are ever produced by that agency, so far as known to us.” This is sufficiently explicit; but if ordinary descent is not the origin of man, if some extraordinary power from without the *Reign of Law* has produced this solitary result, there is nothing gained in the way of lessening the difficulties which many feel as to supernatural action; and his grace only suggests a second mystery to remove the first. His reasoning appears to be an unanswerable refutation of his own objections to M. Guizot's argument in favor of the ordinary interpretation.

“The unclothed and unprotected condition of the human body,” he says, “its comparative slowness of foot, the absence of teeth adapted for prehension or for defence, the same want of power for similar purposes in the hands and fingers, the bluntness of the sense of smell, such as to render it useless for the detection of prey which is concealed—all these are features which

stand in strict and harmonious relation to the mental powers of man. But apart from these, they would place him at an immense disadvantage in the struggle for existence. This, therefore, is not the direction in which the blind forces of natural selection could ever work. The creature 'not worthy to be called a man,' to whom Sir John Lubbock has referred as the progenitor of man, was, *ex hypothesi*, deficient in those mental capacities which now distinguish the lowest of the human race. To exist at all, this creature must have been more animal in its structure; it must have had bodily powers and organs more like those of the beasts. The continual improvement and perfection of these would be the direction of variation most favorable to the continuation of the species. These would not be modified in the direction of greater weakness without inevitable destruction, until first, by the gift of reason and of mental capacities of contrivance, there had been established an adequate preparation for the change. The loss of speed or of climbing power which is involved in the fore-arms becoming useless for locomotion, could not be incurred with safety until the brain was ready to direct a hand. The foot could not be allowed to part with its prone or prehensile character, until the powers of reason and reflection had been provided to justify, as it now explains, the erect position and the upward gaze. And so through all the innumerable modifications of form which are the peculiarities of man, and which stand in indissoluble union with his capacities of thought. The lowest degree of intelligence which is now possessed by the lowest

savage, is not more than enough to compensate him for the weakness of his frame, or to enable him to maintain successfully the struggle for existence."\*

In the light of this forcibly expressed argument against Sir John Lubbock's theory of the descent of the human race, we are led to infer that his grace means his explanation of our first parents being "born," and not made, to imply that in this way two beings were formed with such strength of body and endowment of mind, at the very outset, as to be independent of the difficulties by which such a creature as Sir John Lubbock has imagined, must have been beset. If that is his grace's view, it is not only plausible, we admit, but possible, in so far as the examination of the narrative in relation to Adam is involved—"And the Lord God formed man of the dust of the ground;" but the narrative of Eve's creation cannot be brought within its compass without violence to the principles of legitimate interpretation: "And the Lord God caused a deep sleep to fall upon Adam, and he slept: and he took one of his ribs, and closed up the flesh instead thereof. And the rib, which the Lord God had taken from man, made he a woman, and brought her unto the man. And Adam said, This is now bone of my bones, and flesh of my flesh: she shall be called Woman, because she was taken out of Man." Gen. 2:21-23.

We cannot, by any critical process, rid this statement of the supernatural; nor have we the means of absolutely determining the exact limits of what is figurative and what is literal. The process is hidden; the result is

\* "Primeval Man," pp. 65-68.

distinct. Christians whose bias of thinking is decidedly philosophical, are liable to be perplexed by merely *relative* difficulties; and hence their apologetic efforts to minimize the supernatural by substituting imaginary conditions; as, for example, an already organized living creature, instead of the dust, as the elements out of which God formed man. In the dust are all the constituent elements of man's body; and the relativity of the miracle to organized dust in some animal frame, or to dust or earth not organized nor living, is of comparatively slight importance. The literal narrative is devoid even of strangeness to those who see in all creation the work of God's hand. When reason is baffled, faith in the Word is the Christian's guide. The connection of the created with the will of the Creator, is utterly beyond our cognizance; so worlds taking their place in space—life beginning to throb in a germ—Adam and Eve formed, the one of the dust of the ground, and the other out of that dust organized and living—are equally baffling to reason, but equally acceptable to faith. "Through *faith we understand* that the worlds were framed by the word of God, so that things which are seen were not made of things which do appear." While faith does not specially concern itself with one process or mode more than another, and retains only the facts revealed, we may freely concede to Christian expositors the liberty which they claim in giving to the phrase, "the dust of the ground," the widest sense consistent with the idea of man's having an earthly as well as a heavenly origin;\* but we must question

\* "Lange's Commentary on Genesis," p. 211.

every supposition which increases rather than lessens difficulties in the fair reading of the Scripture narrative. We see no warrant from either science, philosophy, or theology, for the well-meant attempt of his grace to reduce the Scripture narrative to a level on which the "natural" might more nearly approach the supernatural, and facilitate the acceptance of an absolute *Reign of Law*.

3. *The theory of man's natural development*, by denying the interposition of the Divine power at the time and in the way stated in the Bible, is influencing multitudes, and we cannot escape the conflict of opinion which it is creating. What we have to do, therefore, is to ascertain whether the facts adduced really discredit or confirm the Bible.

The various modifications of this theory which have been advocated from time to time, we need not wait to discuss. It is enough to consider the form in which it has been most recently expounded by Mr. Darwin and others. Mr. Darwin's theory assumes that animals have descended, at most, from only four or five progenitors, and plants from an equal or lesser number; but analogy would lead him farther, namely, to some one prototype. Accordingly, he infers that probably all the organic beings which have ever lived on this earth have descended from some one form into which life was first breathed by the Creator: "There is grandeur in this view of life, with its several powers, having been originally breathed by the Creator into a few forms, or into one."\*

\* "Origin of Species," p. 570; fifth edition, 1869.

the changes which have ever been educed are due, he tells us, to *Natural Selection*, a force which, in the history of life, we are to regard as having wrought all those wonders which we have hitherto connected with INTELLIGENCE and PURPOSE. With natural selection for the basis of his theory, Mr. Darwin has no further difficulty as to the intensity and comprehensiveness of its applications. It accounts for everything connected with life and its manifestations. While apparently undecided as to the origin of life, he is most explicit as to the functions of natural selection, in steadfastly ruling the manifold and ceaseless struggles for existence.

That his theory has been supported by a remarkably full and ingenious combination of facts, and that it has commended itself to many accomplished naturalists, cannot be disputed ; and yet there are in it so many serious defects and breaks, that it is astonishing to us to find any one accepting it who requires even ordinarily *connected* proof.

It requires of us to believe that, without the slightest reference to any definite *end* whatever, sponges, mollusks, frogs, fishes, monkeys, men, and all other living things have, in the turmoil of ages, been assigned, by natural selection alone, all their varied proportions and spheres.

It requires of us to believe, against all the evidence which confronts us, that there is no *design* whatever in the manifold structure of plants and animals ; and none in those bodies of ours, so fearfully and wonderfully made.

It requires of us to believe that the varied relations of all the colors in nature are but the result of mechanical and chemical combinations, framed by natural selection; that the blue of the sky, the green of the landscape, and the neutral tint of nature's background, are without a purpose; that the splendor of the heavens by night, and the music of the grove as birds warble their song by day, were never *intended* to give pleasure, or to conduce to the happiness of any human being. All these facts are mere sequences under the sway of natural selection, which of itself understands nothing and foresees nothing. God, we are told in Holy Writ, "hath made everything beautiful in his time." Ecclesiastes 3:11. But this theory denies the intentional goodness that has enrobed the world with that surpassing loveliness on which every eye delights to rest. In making these statements, we do Mr. Darwin no wrong. He has firmly refused to recognize beauty as an end in the history of the globe, and goes so far as to state that the admission would be destructive of his theory; even to admit *variety* as an end would be fatal to it. Be it so; the theory is, in this respect, opposed not only to the Bible teachings, but to our intuitions, our experience, and our common sense.

It requires of us to believe that the skill which the bee shows in the structure of its cell, the ingenuity of the spider in constructing its web, the mechanical fitness in the economy of bird-life and the ease with which flight is conducted, the graceful movements of fishes in the deep and the rapidity with which some can change their color, are all nothing more than the mechanical sequen-

ces of a series of facts ; in a word, they are the mere unintentional results of some blind force, controlled by an unintelligent if not indeed unintelligible power, which, after incalculable efforts and failures, finds something which it leaves in a permanent state, but of course, without the remotest reference to that permanent state as an *end*.

It requires of us to believe that the structure of animals, their habits, and their relations to climate and soil ; that the exquisitely delicate formation of the eye and its relation to light and color ; and that the adjustment of the ear to the almost endless variety of sounds ; are meaningless results.

It requires of us to believe that man has been evolved, not in conformity with any purpose, but merely amid the sequences of events, by insensible degrees, and after innumerable experiments and failures.

It requires of us to believe that man has been in every creature, in every stage, from the primordial seaweed to the mollusk, from the lowest mollusk to the serpent, from the serpent to the monkey, and from the monkey to the highest ape.

It requires of us to believe that man has travelled a long and *aimless* journey, and at last not only enjoys the highest bodily organization, but has intellect, imagination, will, conscience, ennobling aspirations after a higher state and a happier home, a sense of right and wrong, and an estimate of virtue and vice ; and to rest assured that all these have turned up without design, in desultory flashes, or in some other way from molecular action,

cerebral impulses, or other mysterious agencies. There is no other origin admissible ; it must be accepted or rejected. " We must therefore place virtue, in this theory, precisely on the same footing with every other attribute of every other animal, and account for its existence in the same way ; that is, we must say that when the first virtuous men, or men with a capacity to appreciate virtue, were accidentally elaborated, it gave them a decided advantage over all their congeners who did not share with them in the new quality, and so enabled them to keep their place in the struggle for life, while their competitors were exterminated by that rigorous law which knows no exception. In one word, the men endowed with virtue exterminated all those who lacked that endowment.

" If this should be a startling history of the origin of moral excellence, and if it should be contradicted by all the records of our race, we must nevertheless *believe* that it was so ; for the theory imperatively demands it, and cannot subsist without the supposition."\*

What evidence have we for so sweeping a theory? We admit, of course, that there is gradation from the lowest to the highest forms of both animal and plant life, and that identity of plan appears in the structure of all the vertebrated animals. The question is, Are they all related *by descent*? If they are, as Mr. Darwin supposes, there must be abundant traces of imperfect, half-formed, and mutilated creatures cast down in the keen struggle of life, and preserved for our instructions in the

\* "Darwinian Theory Examined," pp. 337, 338.

stone-volume. The test is quite simple, it is the suggestion of common sense: Are the resolute assertions of this theory adequately supported by facts? Have the links which *connect* the races been discovered? Have the wrecks of countless experiments been found strewn over the old surfaces, and embedded in them? The preceding lower and the succeeding higher organizations have been found, where are the *intermediate* and the *immature* beings? Their presence, as witnesses, is indispensable. Where is there evidence on earth, now, of the pigeon passing into the crow or of the wading bird into the hawk, of the horse into the cow or of the dog into the cat, or *vice versa*? Granting that the section of time in which we live has behind it all the millions of years which Darwin's theory demands, we should surely find within it some such results as he leads us to anticipate. But it is not so, the links are wanting; and Mr. Darwin, in acknowledging this blank, admits that his theory is as yet proofless. He shrouds the origin of life, as to its cause, and its early development of forms, in impenetrable mystery. He hesitates about the Deity in the one, and draws the veil of millions of years over the other. Theories are safe practice amid vagueness like that. But is his demand of millions of years before the Silurian system, with its glimpses of life, admissible? It is boldly made. "If my theory be true," he says, "it is indisputable that before the lower Silurian stratum was deposited, *long periods* elapsed, as long as, or probably *far longer*, than the whole interval from the Silurian age to the present day; and during these vast, yet *quite un-*

known periods of time, the world swarmed with living creatures." He has looked long into these depths of the past, yet no witnesses have come to his aid. The silence has been unbroken, and he confesses it. "To the question why we do not find records of these vast primordial periods," he replies, "I can give no answer, the difficulty of understanding the absence of vast piles of fossiliferous strata, which on my theory *no doubt* were somewhere accumulated *before* the Silurian epoch, is very great. The case, at present, must remain inexplicable, and may be truly urged as a valid argument against the views here entertained." The modesty of this admission renders adverse criticism unpleasant. But without dwelling on the absence of facts, we may press the necessity on such theorists of having some regard to geological *time*. Fortunately, the question is finding ardent students, and investigations as to the cooling of the globe, and other relations in its physical condition, are putting an end to speculations which assume many millions of years before the Silurian era. Theorists like Mr. Darwin err egregiously in not inquiring into the possibility of the earth's crust having, millions of years ago, those exact conditions which they demand. Palæontologists have too often found it convenient to take refuge amid the mists of the pasts, when definiteness has been demanded; but the recent investigations of Sir William Thomson, as we have already stated, have checked this thoughtless extension of indefinite ages, and have brought them to recognize in their professedly scientific pursuits the necessity of greater precision. As against the ages pre-

ceding the Silurian period, there is proof that the conditions of the globe were such as to render the existence of life improbable, if not impossible.

But taking the geological strata which teem with fossils, we demand proof of gradual descent by natural selection ; and Mr. Darwin does not and cannot give it. He pleads in excuse the incompleteness of the geological volume ; it "is a history of the world," he says, "imperfectly kept, and written in a changing dialect. Of this history, we possess the last volume, relating only to two or three centuries. Of this volume, only here and there a short chapter has been preserved ; and of each page, only here and there a few lines. On this view, the difficulties above discussed are greatly diminished or disappear."

We cannot accept this apology. The most delicate structures have been preserved in the stone-volume ; and why not, at least, some of those huge intermediate, immature, or imperfectly-developed animals which must have lived and perished under the sway of natural selection ? Mr. Darwin does not hesitate to admit that the number of the perished links has been vast : "The number of intermediate and transitional links between all living and extinct species must have been inconceivably great. But, assuredly, if this theory be true, such have lived upon the earth."\* If so, where are they ? How have they disappeared ? Has natural selection been busy, also, with the materials that should be saved as witnesses of the past, ranging from before the Silurian period till now ?

\* "Origin of Species," p. 348.

But granting the imperfection of the geological volume ; granting, indeed, for argument's sake, all that Mr. Darwin demands, what of the diffused life in the *present* period, with its almost endless diversity of form ? The results of the past are before us in the living of every climate. In every condition, life-forms are subject to the tests of the anatomist, the physiologist, the chemist, and the metaphysician. The page is wide as the world, and every character is distinct. If therefore, the theory has in it any elements of truth, they should appear in animals, the living representatives of at least some of those transitions which may not have been preserved in bygone ages, or which, if preserved, have not yet been discovered. Surely, creatures at the various intermediate stages of blind experimenting should be turning up now and again ; for the struggles of life are continued, and natural selection is still supreme. That no such facts are forthcoming as the interests of truth and the ordinary principles of inductive reasoning demand, should modify the enthusiasm of theorists, and warrant the rejection of their dreams.

No one pretends that the intermediate or immature links are discoverable in existing races. They are separated by apparently insuperable barriers to descent. Arrest is laid visibly on community of species. What is inexplicable in the past is equally inexplicable in the present. It is quite true that, in Mr. Darwin's theory, "the same number of vertebræ forming the neck of the giraffe and the elephant, at once explains itself on the theory of descent with slow and successive modifica-

tions;" but is it not equally true that, on the same theory, creatures should be discovered budding into the giraffe or into the elephant, and that transitional links should be found between the ox and the mule, or between the dove and the hawk, with the nature and habits in part of each, and between all other species, also, that are distinct? Why are there not incipient men and incipient women, half man and half lower animal, or two thirds woman and one-third inferior animal? Why are there no projections now of new and advancing structures to be kept and improved on?

The theory, however, is not without its hopes. It cherishes bright prospects. A prophetic spirit shapes its future. If natural selection has done so much from the first spore of life, what may it not accomplish in future ages with such a platform as the highly-organized beings of the present time? The theory necessitates the incoming of higher structures than man's. Mr. Darwin admits this, and forecasts it when he says, "The ultimate result will be that each creature will tend to become more and more improved in relation to its conditions of life. This improvement will, I think, *inevitably lead to the gradual advancement of the organization of the greater number of human beings throughout the world.* But here we enter on a very intricate subject; for naturalists have not defined to each other's satisfaction what is meant by advance in organization. Among the vertebrates, the degree of intellect and an approach in structure to man, clearly come into play."\*

\* "Origin of Species," p. 131.

vanced in organization ; intellect has come into play, but nature is not exhausted. Life is on an upward path ; and if this theory be true, surely, as intellect has come out of *non-intellect*, or a physical combination, what shall be the ultimate product of intellect, and which of them shall natural selection preserve ? Without wasting time on conjecture, we may ask whether perfection shall be reached by a mollusk before it has come to the human platform ? Is "gradual advancement" to carry all life-structures onward to the organized condition which man has reached, and shall distinctions cease ? If this general improvement should ever take place, when every creature will thus be advanced to the limits of perfectibility, there will be no more natural selection ; for she will have done her work, and, consequently, there will be no more struggles for life. Creatures will not be waging battle within battle ; in fact, all the destroyers will disappear, and they will be transformed into some superior position "by an advancement of the brain for intellectual purposes ; and even the intestine worm will perhaps be in a fair way to study logic and propound theories."\*

The theory begins in mystery, and ends in it. It dreams of a beginning untold ages ago, it dreams of a kind of perfection untold ages hence, and places midway a beautiful exposition of many facts which yet leave the theory proofless.

But, in conclusion, the theorists are at war with one another. As Ishmaelites, their hand is against every man. Each is a law to himself in theorizing. Their

\* "Darwinian Theory Examined," p. 157.

contendings may well teach us caution. Lamarck set those right who preceded him. The author of *The Vestiges of Creation* outstripped Lamarck ; and Mr. Darwin sets both aside, while he in turn has been severely censured by M. Tremaux, and has all his reasoning controverted in favor of the new theory. Lamarck believed in spontaneous generation, Darwin does not. The author of *The Vestiges* expounded a law of development, and Mr. Darwin displaces it by natural selection. M. Tremaux has repudiated the origin which Mr. Darwin has assumed, and insists on our believing that not water, but the *soil*, is the origin of all life, and therefore of man. With him there is no progress ; all creatures have reached their resting-place. But man rises or sinks according to the more recent or ancient soil he dwells on. Professor Huxley is unwilling to abandon his idea that life may come from dead matter, and is not disposed to accept of Mr. Darwin's explanation of the origin of life by the Creator having, at first, breathed it into one or more forms. While accepting Mr. Darwin's theory of a common descent for man with all other creatures, he not only differs from him as to the beginning, but he admits that there is no gradual transition from the one to the other. He acknowledges that "the structural differences between man and even the highest apes, are great and significant;" and yet, because there is no sign of gradual transition "between the gorilla and the orang, or the orang and the gibbon," he infers that they all had a common origin ; whereas, the more natural conclusion from the facts would be, that they had separate beginnings.

Mr. Wallace, whose claims are admitted to be equal to those of Mr. Darwin as the propounder of the theory of the origin of species and as to the powers expressed by natural selection, has firmly asserted that, with all its resources, natural selection is utterly inadequate to account for the origin and structure of the human race. "A superior intelligence has guided that development in a definite direction and for a special purpose." It is interesting to observe how completely these two great naturalists differ from one another. Mr. Wallace argues against natural selection as sufficient to explain the greatness of man's brain in even the lowest savages, who have little more use for it than the lower animals around them, whose brain is greatly inferior. These savages, in having a brain little inferior to that of the highest type of man, possess that which is comparatively of so little use to them, that it could not have been obtained in the struggle for existence. "They possess," he says, "a mental organ beyond their needs. Natural selection could only have endowed savage man with a brain a little superior to that of an ape; whereas, he actually possesses one very little inferior to that of a philosopher." Mr. Wallace also specifies other facts in the natural history of man, for which Mr. Darwin's theory utterly fails to account. In the structure of the hands and feet, in that also of the larynx, giving the power of speech and especially of musical sounds, he finds evidence of the inadequacy of natural selection. His references to the human body are so pointed, that their effect cannot be slighted by unprejudiced inquirers: "The soft, naked, sensitive

skin of man, entirely free from the hairy covering which is so universal among other mammalia, cannot be explained on the theory of natural selection. The habits of savages show that they feel the want of this covering, which is most completely absent in man exactly where it is thickest in other animals. We have no reason whatever to believe that it would have been hurtful or even useless to primitive man; and under these circumstances, its complete abolition, shown by its never reverting in mixed breeds, is a demonstration of the agency of some other power than a law of the survival of the fittest in the development of man from the lower animals.\* Mr. Wallace's discussion of "The Limits of Natural Selection, as Applied to Man," is not only interesting in itself, but is instructive, as showing us how little is gained by abandoning the simple teaching of Scripture for the elaborate and conflicting theories of our ablest and most accomplished naturalists.

\* "The Limits of Natural Selection, as applied to Man," by A. R. Wallace, pp. 355, 356.

## CHAPTER VIII.

HAVE THERE BEEN MORE ORIGINS THAN ONE FOR THE HUMAN RACE?—THE BIBLE DOCTRINE IN RELATION TO RECENT THEORIES.

As we go westward, we observe the light color predominate over the dark ; and then again, when we come within the influence of damp from the sea air, we see the shade deepen into the general blackness of the coast population.—DR. LIVINGSTONE.

It is more than two hundred years (1655) since La Peyrère, basing his reasoning on the Scriptures, argued in favor of a plurality of origins for the human family. Taking the history of Cain for his guide, Gen. 4:16, 17, he maintained that there was a Non-Adamite race, the ancestors of the Gentiles ; and that the Jews alone, of whose origin and history the Bible treats, were the descendants of Adam. La Peyrère was a theologian who vindicated as true all that is in the Bible ; “and exhibited in his work,” says Quatrefages, “a mixture of complete faith and free criticism ;” but he found, in that age, no listeners. After his time there was a long silence, though possibly much thought on the subject, until Voltaire and Rousseau, seizing La Peyrère’s arguments, wielded them against the Scriptures with the commanding brilliancy of their genius. The contest was soon transferred to the United States of America, where the reasoning of the French Encyclopædists was reproduced

with all that intensity of feeling and that variety of resource which the interests of the slavery question created. The Christianity and scholarship of America gave to the discussion a magnitude and influence which could not have been secured for it by the infidelity of France. Theologians became, unintentionally, earnest coadjutors with infidels and skeptics in the effort to establish a separate origin for the negro race. The question has of late lost much of its interest; because, on the one hand, the gigantic system of slavery in America has collapsed, and because, on the other, the most commonly accepted theories as to development and evolution include, in their basis, unity of origin or race. It may be of some advantage, however, to review briefly the present aspects of the question.

#### I. THE BIBLE DOCTRINE.

The Bible doctrine is distinctly stated. In the geologic fulness of time God "created man, male and female;" "Adam called his wife's name Eve, because she was the mother of all living." In the New Testament, unity of origin is taught by Jesus Christ himself. He reaffirms the Old Testament doctrine. Adam had said of Eve, "This is now bone of my bones, and flesh of my flesh: she shall be called Woman, because she was taken out of Man. Therefore shall a man leave his father and his mother, and shall cleave unto his wife; and they shall be one flesh." And Jesus, the second Adam, asserting the same truth, bound the Old to the New Testament, when he said: "But from the beginning of the creation

God made them male and female. For this cause shall a man leave his father and mother, and cleave to his wife." Mark 10:6, 7. He abolished distinctions by his command, "Go ye into all the world, and preach the gospel to every creature." Mark 16:15. "Wherefore, as by one man sin entered into the world, and death by sin; and so death passed upon all men, for that all have sinned:" Rom. 5:12; God "commandeth all men everywhere to repent." Acts 17:30. The apostle Paul, in the centre of Athens, in the midst of matchless monuments of human skill, and confronting the learning and the pride which exalted the Athenian above every race in the world, boldly proclaimed to them the distasteful truth, that "God hath made of one blood all nations of men for to dwell on all the face of the earth." Acts 17:26.

While these direct statements are accepted by Agassiz, and many others who hold fast and defend the Scriptures, they regard them as expressing only what is applicable to the Jewish and Caucasian race; and they, at the same time, insist that God created other races in separate zoological provinces. Strangely enough, while they advocate diversity of origin, they no less earnestly advocate unity of species; and thus they satisfy, as they suppose, the declaration of the apostle, that "all are of one blood." The facts on which different theories have been framed are so numerous and so varied, that they would require the fullest examination, were it not that the controversy has of late changed its character. The past has its series of testimonies in the skulls of long-buried races

and the present makes its evidence commensurate with the inhabitants of the world.

Omitting, in the meantime, the first, let us note some of the facts in the second series. The world is its basis; the human race is the subject. There is not a continent which the merchant or the missionary has not traversed; not a hill-tribe has been left unnoted, nor an island unexplored. Vast groups attract attention, and subordinate varieties intensify the interest. There are universally-accepted race distinctions—as in the Caucasian, with his fair skin, dark and curling or flowing hair, and ample brow; in the Mongolian, with his receding forehead, obliquely-set eyes, projecting chin, thin long black hair, and sallow skin fitting tightly like parchment to the cheek-bone; in the Ethiopian or Negro, with dark skin, woolly hair, prominent cheek-bones, and thick lips; in the Malay, with his reddish-brown color, lank black hair, square skull, and low forehead; and in the American, with his brown complexion, sunken eye, and swollen cheek-bone. Minuter peculiarities are recognizable—from the Patagonian, with his commanding figure, in the southern projection of one continent, America, to the Bosjesman, with his shrunken and shrivelled frame, in the southern projection of another continent, Africa; from the diminutive Esquimaux, seated in his ice-built home—his crystal palace, with its door of snow—or setting out in eager hunting or fishing enterprise in a temperature cold enough to make mercury freeze—to the Indian in the steaming jungle of the Carnatic, or the African lounging in the shade of rock or sallying forth

with light step in easy enjoyment of an atmosphere hot enough to make ether boil. We see man subsisting on every form of food—from the cooling fruits which the tropics provide for the savage, to the scant shell-fish of southern and the coarse oil of northern tribes; and we see every mode of life—from the huntsman, penetrating the forest or scouring the plain, to the artisan in civilized communities, toiling dust-covered and scorched with furnace-heat amid the ceaseless clank of machinery—and from the herdsman, contemplatively following his flocks or watching the stars on which Chaldean Shepherds loved long ago to gaze, to the philosopher, apart and alone, grappling with profoundest problems, or the scientific student, rejoicing in some discovered application which may benefit thousands of his fellow-men. These are but glimpses of many facts which every one acknowledges, and the question to be determined is, Are all these compatible with descent from one pair, Adam and Eve; or must we infer diversity of origin in zoological centres?

## II. THE THEORY OF DIVERSITY OF ORIGIN.

Skeptics who at one time reasoned in favor of a plurality of origins in opposition to the Bible, have abandoned their theory, and adopted as its substitute development or evolution from one or more life-germs. We have therefore to do only with those who, holding the Bible in common with ourselves, defend diversity of origin, or a belief in several centres for the human family.

“The circumstance,” says Agassiz, “that wherever

we find a human race naturally circumscribed, it is connected in its limitation with what we call, in natural history, a zoological and botanical province—that is to say, with a natural limitation of a particular association of animals and plants—shows most unequivocally the intimate relation existing between mankind and the animal kingdom, in their adaptation to the physical world. The Arctic race of men, covering the treeless region near the arctics, in Europe, Asia, and America, is circumscribed in the three continents within limits very similar to those occupied by that particular combination of animals which are peculiar to the same tracts of land and sea.”

“The region inhabited by the Mongolian race is also a zoological province, covered by a combination of animals naturally circumscribed within the same regions. The Malay race covers also a natural zoological province. New Holland again constitutes a very peculiar zoological province, in which we have another particular race of men. And it is further remarkable in this connection, that the plants and animals now living on the continent of Africa south of the Atlas, within the same range within which the Negroes are naturally circumscribed, have a character differing widely from that of the plants and animals of the northern shores of Africa and the valley of Egypt; while the Cape of Good Hope, within the limits inhabited by the Hottentots, is characterized by a vegetation and a fauna equally peculiar, and differing in its features from that over which the African race is spread.”

For these reasons, Agassiz infers that "men were primarily located in the various parts which they inhabit, and that they arose everywhere in those harmonious numeric proportions with other living beings, which would at once secure their preservation and contribute to their welfare. To suppose that all men originated from Adam and Eve, is to assume that the order of creation has been changed in the course of historical times, and to give to the Mosaic record a meaning that it was never intended to convey. On that ground, we would particularly insist upon the propriety of considering Genesis as chiefly relating to the history of the white race, with special reference to the history of the Jews."\*

Professor Agassiz takes especial pains, at the same time, to make it clear that he regards all the different races not only as constituting a common brotherhood, but as morally responsible and equally related to the divine government; yet we trust it will appear as we advance, that there is nothing in the facts or circumstances to which he refers, incompatible with the diffusion of the whole family of man from a common centre.

*Proof of Diversity of Origin considered.*—The chief reasons which are urged by Agassiz and others against acknowledging descent from Adam and Eve, and in proof of more origins than one, are 1, variety of *color*, and 2, variety of bodily conformation; and the question is, Are these varieties compatible with the common interpretation of the Scripture record?

1. The *differences in color*, as every one admits, are

\* "Christian Examiner," July, 1850.

very remarkable ; but it must be borne in mind that there are forces at work in climate, in soil, and through other agencies, which are, as yet, mysterious in their relation to human physiology. The results are visible, but the processes on which they depend are concealed ; and these results show not only men, but some of the lower animals, so completely changing their color, as to remove all difficulty regarding the blackness of the Negro or Ethiopic race.

Physiologists hastily assumed that in the negro there was a singular network beneath the skin which was the source of his blackness, and they made this their warrant for separating him specifically from the white race ; but more accurate microscopic observation has proved the existence in all men of that network—in the white in the temperate zone, as well as in the black in the torrid. It is in man everywhere, and is susceptible of those subtle influences which produce different degrees of color. It contributes to man's comfort, and fits him for all climates.

Those Portuguese who have been long settled in Africa and the East Indies, have become perfectly black in color ; so, also, Greeks and Turks are changing into the dusky and sable.

The Jew, whose invariable identity is everywhere conspicuous, and who is everywhere testifying to the truth of Scripture, as an inhabitant of all lands yet with a resting-place in none, represents color in all its degrees. In the plains of the Ganges, his skin is jet black ; in Syria, he is of a dusky hue ; in Poland, his hair is light

and his complexion ruddy ; on the Malabar coast, in one colony—the older—he is black, in the other colony—the younger—he is comparatively fair. “For 1800 years,” says one whose authority none will dispute, “that race [the Jews] has been dispersed in different latitudes and climates, and they have preserved themselves distinct from intermixture with other races of mankind. There are some Jews still lingering in the valley of the Jordan, who have been oppressed by the successive conquerors of Syria for ages—a low race of people—and described by trustworthy travellers as being black as any of the Ethiopic races. Others of the Jewish people, participating in European civilization and dwelling in the northern nations, show instances of the light complexion, the blue eyes and fair hair of the Scandinavian families. The condition of the Hebrews since their dispersion has not been such as to admit of much admixture by the proselytism of household slaves. We are thus led to *account for the differences in color by the influence of climate*, without having to refer them to original or specific distinctions.”\*

Nor are changes in color limited to man. Whatever may be the process, similar results appear among the lower animals. In Guinea, every fowl and every dog becomes, like the people, black. In America, the pale horse of this country becomes commonly a chestnut brown. In the Romagna Campagna, the ox is gray ; in other parts of Italy, red. Sheep in Italy are chiefly black ; in

\* Professor Owen. “Lecture before Cambridge University, 1859,” p. 96.

England, chiefly white. Horses in Corsica become mottled, and the well-known carriage dog shows also a peculiar change.

2. *Changes in physical conformation* harmonize with change in color. Mr. Reade, in his work, "Savage Africa," when writing of the races on the Atlantic coast, says that the red races change to black when they descend into the lowlands, and that, while some years ago it was rare to see a black Fula or Puelh, it is scarcely possible to see any other than blacks without passing far into the interior. Associated with the Mandingos, they are driving out the negroes, and taking their places on the river, and they are themselves so visibly changing their features as to be becoming negroes. To change their geographical position, is to change their features. The red-skinned inhabitants of the mountain terraces of Western Africa, descending into the malarious swamps, have lost their original character, and have become degraded in both body and mind; but these negroes are by no means representatives of the true African races. "In Africa," says the same writer, "there are three grand races, as there may be said to be three grand geological divisions.

"The Libyan stock inhabit the primitive and volcanic trails. They have a very tawny complexion, Caucasian features, and long black hair.

"On the sandstones will be found an intermediate type. They are darker than their parents; they have short and very curly hair; their lips are thick, and their nostrils wide at the base.

“And finally, in the alluvia, one will find the negroes with a black skin, woolly hair, and prognathous development.”\*

That soil, climate, and the supply of food determine in a large degree the physical conformation of different races, is an almost universally accepted truth. Prichard, Reade, and Livingstone, as well as others, bear united testimony to the deteriorating effects, physically and mentally, of mere external circumstances alone. Prichard has assured us that those races in which the negro character appears in its most exaggerated form, and which present the most debased and the ugliest blacks, are to be found, in most instances, inhabiting swampy and unhealthy tracts near the seacoast, where they have the barest means of subsistence. They are not only social outcasts, but oppressed; yet, whenever their social condition and external surroundings improve, there is obviously a corresponding advance in their features and general bearing.† Reade is no less emphatic in contending that, while the degradation of the negro is altogether indisputable, it is only degradation, or disease, or accident, and nothing more. And Livingstone, in some of his more recent letters, has proved not only that the debasement of the negro tribes is exceptional, but that, when free, and occupying a fair field, they present some of the nobler aspects of the human race.‡ Testimony has been borne by Humboldt to the effects on physical

\* See “What is Truth?” by Rev. E. Burgess, pp. 397, 398.

† “Researches,” vol. 2, p. 231.

‡ See also “Livingstone’s Researches in South Africa,” chap. 19; and “Man and his Migrations,” by Latham.

conformation which the elevated plateau and its rarer atmosphere commonly produced. The respiratory organs, becoming more active, demand more scope, and the result has been that, in the Andes, such a development of chest is common as to be almost a deformity.\* To come nearer home, we have, in the comparatively recent history of Ireland, decided evidence of the rapidity with which, in changed circumstances, a people may become degenerated. In 1641 and 1689, there was a bitter struggle between the British and the rebels, which ended in the native Irish—stalwart men—being driven from the counties Down and Armagh to the bleak districts in the west, and in less than two centuries the sad effects became painfully visible. The mouth, the chin, the cheek-bones, the height, the general appearance, betokened a sunken condition akin to barbarism.

The theory of Agassiz is untenable, because it is unnecessary for the explanation of changes in even contiguous spheres which can with ease be traced historically, and because it fails, also, in reference to the lower animals in his zoological provinces, inasmuch as they adapt themselves to distant provinces and flourish in them. The horses, for example, let loose in South America, have not only not deteriorated by their transference to a new province, but have improved. Their glossy hair has passed into a shaggy fur; and all their colors, white, brown, and red, have disappeared in the one prevailing color. The swine introduced have similarly changed. The hog of the mountain of the Paranos now resembles

\* See also Darwin's "Descent of Man," vol. 1, p. 119.

the wild boar once in this country and France. The bristles have given place to a thick fur, often crisp; and whatever their first color, they are uniformly black. The bodily structure, also, has altered to suit their new condition; the snout has become long, the forehead vaulted, and the hind legs lengthened. The dog never barks, but howls like the wolf; and the structure of the head varies from the breadth of the mastiff to the narrowness of the greyhound. In other parts of the world, similar modifications take place. The African sheep becomes goat-like, and assumes hair for wool; and the Wallachian sheep gradually presents perpendicular spiral horns.

Facts crowd on us; they would fill volumes. Animals in our own land constitute of themselves sufficient proof. The horse varies from the gigantic dray-horse of our streets to the small Shetland pony, scrambling with amazing agility over highland crags; the dog, from the St. Bernard searching for some frozen traveller, to the lap-dog nestling in the warmth of the drawing-room; and cattle, from the small highland steer to the huge prize oxen of our shows. Unless Britain itself can be divided into zoological provinces, the proofs which have been stated show so fully the adaptiveness of different animals, and the changes in color and conformation to which it leads, that we are fully warranted in rejecting the theory of diversity of origin in distinct zoological centres.

It remains for us to give here an outline of the extensive evidence which has been adduced in support of the Bible doctrine, as held by the opponents of Agassiz.

3. *Proofs in support of Unity of Origin.*

The direct proofs in support of unity of origin are, (1) Bodily Structure, (2) Language, (3) Tradition, and (4) Mental Endowment.

(1.) *Bodily Structure.*—Anatomists and physiologists of the highest standing assign to man's bodily structure a place distinct from that of all other animals. The following conclusions have been established, whatever may be the variety of the race:

*a.* All have the same number of teeth, and of additional bones in their body.

*b.* They all shed their teeth in the same way, which also differ from others in that they are of equal length.

*c.* They all have the same upright posture—they walk and look upwards.

*d.* The head is set in every variety in the same way.

*e.* They possess two hands.

*f.* They possess smooth bodies, and heads covered with hair.

*g.* Every muscle and every nerve in every variety are the same.

*h.* They all speak and laugh.

*i.* They eat different kinds of food, and live in all climates.

*j.* They are more helpless, and grow more slowly than other animals.

Professor Owen has very distinctly given his decision on this question in the following terms: "With regard to the value to be assigned to the distinctions of race, in consequence of not any of those differences being equiv-

alent to those characteristics of the skeleton or other parts of the frame upon which specific differences are founded by naturalists in reference to the rest of animal creation, I have come to the conclusion that man forms one species, and that *differences are but indicative of varieties.*" "The unity of the human species is demonstrated by the *constancy* of those osteological and dental characters to which the attention is more particularly directed in the investigation of the corresponding characters in the higher quadrumana."\*

k. There is perhaps no argument in favor of the Bible doctrine of unity of race more direct than that which has been founded on the physiological barrier to descent from mixing distinct species. When crossed, they produce hybrids which are either barren, or degenerate so speedily that they die out. Varied experiments have fully proved the infertility of hybrids. The law which controls different species also checks their descent; the mule, for example, closes the history of descent from the horse and the ass, and similar results are always educed from similar experiments. Hybridity, in the crossing of the horse and the ass, reaches its end in a single generation, and is thus a strong protest against a theory which is at present supported by influential advocacy. The plausible combinations of suitable facts, which the intermixture of varieties has supplied, do not, in the remotest degree, show the possibility of descent from clearly distinct species. While we have before us barriers which Nature does not overpass, among both living

\* Lecture before Cambridge University, p. 103.

plants and animals, we can do nothing else than reject suppositions as to all barriers having been by some means overcome in bygone ages. Purity of species has been preserved with obvious care. "It strikes us naturally with wonder," says Professor Dana, "that even in senseless plants, without the emotional repugnance of instinct, and with reproductive organs that are all outside, the free winds being often the means of transmission, there should be rigid law sustained against intermixture. The supposed cases of perpetuated fertile hybridity are so exceedingly few, as almost to condemn themselves as no true examples of an abnormality so abhorrent to the system. They violate a principle so essential to the integrity of the plant-kingdom, and so opposed to Nature's whole plan, that we rightly demand long and careful study before admitting the exceptions."\*

A careful review of this section of evidence satisfactorily indicates that organic species preserve permanent distinctions, and that all the varieties of the human race constitute only one species, which has descended from a single pair.

(2.) *Language*.—Language has unexpectedly become a witness to the unity of the race. A new course of investigation has been commenced, and has created surpassing interest. The discovery, less than a century ago, of the Sanskrit literature, has revolutionized long-accepted opinions as to the Hebrew language, and is gradually removing confusion. It has become the connecting link between widely-separated dialects, and has established a

\* Quoted in "What is Truth?" by Rev. E. Burgess, A. M., p. 189.

new classification. The Asiatic Society, founded in Calcutta in 1784, and rendered illustrious by the exertions of Sir William Jones, Carey the missionary, and others, gave impulses to investigation which are still sustained; and a history in philology of unequalled brilliancy has run on for half a century. A new science, that of Language, classed by Max Müller among the Physical Sciences, has been created; and the longer it is prosecuted and the more exactly its results are systematized, the more thoroughly is Scripture confirmed. Language is a mysterious *characteristic* of man, and forms an impassable barrier between him and the lower animals. No theories of evolution or development can displace the marvellousness of human speech. Though much in the realm of language has perished; though whole periods in its history have irrecoverably gone; yet the mass that remains, both in dead and in living languages, is sufficient to tax for generations the scholarship of Europe and the East. It is yet impossible to fix exactly the number of known languages. Adelung announced three thousand and sixty-four distinct languages; Balbi eight hundred languages and five thousand dialects; and Max Müller has calculated that there are nine hundred known languages. Their number and their prominence may well excite our sympathy with Max Müller, when, in surprise at their long neglect, he says: "Man has studied every part of nature—the mineral treasures in the bowels of the earth, the flowers of each season, the animals of every continent, the laws of storms, and the movements of the heavenly bodies; he had analyzed every substance,

dissected every organism ; he knew every bone and muscle, every nerve and fibre of his own body, to the ultimate elements which compose his flesh and blood ; he had meditated on the nature of his soul, on the laws of his mind, and tried to penetrate into the last causes of all being—and yet, language, without the aid of which not even the first step in this glorious career could have been made, remained unnoticed. Like a veil that hung too close over the eye of the human mind, it was hardly perceived. In an age when the study of antiquity attracted the most energetic minds, when the ashes of Pompeii were sifted for the playthings of Roman life ; when parchments were made to disclose, by chemical means, the erased thoughts of Grecian thinkers ; when the tombs of Egypt were ransacked for their sacred contents, and the palaces of Babylon and Nineveh were forced to surrender the clay diaries of Nebuchadnezzar ; when everything, in fact, that seemed to contain a vestige of the early life of man was anxiously searched for, and carefully preserved in our libraries and museums—language, which in itself carries us back far beyond the cuneiform literature of Assyria and Babylonia, and the hieroglyphic documents of Egypt—which connects ourselves, through an unbroken chain of speech, with the very ancestors of our race, and still draws its life from the first utterances of the human mind—language, the living and speaking witness of the whole history of our race, was never cross-examined by the student of history, was never made to disclose its secrets, until questioned, and, so to say, brought back to itself, within the last fifty years, by

the genius of a Humboldt, Bopp, Grimm, Bunsen, and others.”\*

This long neglect *is* strange; it is an irremediable loss. Be it so; we are now reaping the fruits of fresh enthusiasm and scholarship. The science of language is not only achieving with dead dialects what geology is tracing in fossils, but it is also doing with living languages what natural history is accomplishing among the existent fauna of the globe. Like geology and astronomy, it has had among its earliest efforts to correct its own mistakes, when, like them, it had spoken too hastily against the Bible.

There are certain received conclusions which are confirmatory of the Bible as to one language being the foundation of all others, until broken up in confusion at the Tower of Babel. The greatest philologists are agreed regarding the classification which reduces all languages to three families—the Aryan, the Semitic, and the Turanian. Under these are grouped the chief dialects of Asia, Africa, and Europe; and although the arrangement is confessedly imperfect, it is astonishing to find, amid many conflicting surface appearances, so much at bottom that is really harmonious.

Another classification, which has been based on their roots, and has reference to their internal structure, does not militate against, but rather strengthens this conclusion.† In an instructive article on the *Confusion of Tongues*, in Smith’s “Dictionary of the Bible,” there are

\* “Science of Language,” p. 26.

† “Science of Language,” First Series, pp. 254-279.

specified four instances in which proofs of unity of language may be found ; and the writer adds : “ Such a result, though it does not prove the unity of language in respect to its radical elements, nevertheless tends to establish the *a priori* probability of this unity ; for if all connected with the forms of language may be referred to certain general laws—if nothing in that department owes its origin to chance or arbitrary appointment—it surely proves the presumption that the same principle would extend to the formation of the roots which are the very core and kernel of language. Here, too, we might expect to find the operation of fixed laws of some kind or other producing results of a uniform character ; here, too, actual variety may not be inconsistent with original unity.”\*

The inference is fully warranted by what has been ascertained, that nothing valuable has been added to the substance of languages, that its changes have been those of form only, and that no new root or radical has been invented by later generations. The Teutonic languages of Europe, of which the vernacular Scotch is part, are illustrated by the language of Persia ; the Latin of Italy connects itself with Russian idioms ; and Greek with the Sanskrit of India. From Ceylon, with its fragrant breezes, to Iceland, with its wintry storms, there is, irrespective of form, of color, of social life, and religious institutions, but one belt of language. The American tribes in the far West, Humboldt has assured us, are indissolubly united to the inhabitants of Asia ; the lan-

\*† “ Smith’s Bible Dictionary.” Art., “ Confusion of Tongues.”

guages of Shem, Ham, and Japhet, have a common affinity; hills, plains, climates change, but language in its substantial elements is really more enduring than the pyramids of Egypt, the ruins of Palmyra, or the statues of Greece.

Klaproth, who has little reverence for the Bible, says, "All languages in the world are connected with one origin: a universal affinity is completely demonstrated;" and Herder, though doubting the inspiration of Moses, is yet decided in his belief that the human race and human language go back to one source. "All dialects," says the Petersburg Academy, "are to be considered as dialects of one now lost."

Max Müller, who has traced an intimate connection between Finnish through the remote north of Europe and Tamil in Southern India, has submitted the following conclusion: "Nothing necessitates the admission of different independent beginnings for the *material* elements of the Turanian, Semitic, and Aryan branches of speech; nay, it is possible, even now, to point out radicals, which, under various changes and disguises, have been current in these branches ever since their first separation." Again, "if inductive reasoning is worth anything, we are justified in believing that what has been proved to be true on so large a scale, and in cases where it was least expected, is true in regard to language in general. . . . We can understand not only the origin of language, but likewise the necessary breaking-up of one language into many; and we perceive that no amount of variety in the material or the formal elements of speech

is incompatible with the admission of one common source." Inquiry has not exhausted anomalies; difficulties remain; the Chinese language has not yet been satisfactorily adjusted in the range of classification, nor have the rapidly-varying dialects of some outlying tribes been definitely assigned their place in the chain of connections; but these do not affect the general conclusion to which philological investigation has guided scholars. The science has led us to that highest and earliest resting-place "whence we can see into the very dawn of man's life on earth, and where the words with which from childhood we have been familiar, 'And the whole earth was of one language, and one speech,' assume a meaning more natural and more impressive than they ever had before."\*

(3.) *Tradition.*—The traditions which prevail in all lands, connect together distant and dissimilar races.

Omitting those that are less significant or less widespread, though full of interest notwithstanding, let us refer to some of those which have been most distinctly recognized in different parts of the world. Outlying and comparatively isolated tribes may be found, without traditions of any kind; but these do not affect the argument as drawn from those traditions which, in different forms, are common to all the leading communities in the world.

\* For a general view of the whole subject, and for details also, we must refer to the "Science of Language," by Max Müller, First and Second Series; to Bopp's "Comparative Grammar of the Sanskrit, Zend, Greek, Latin, Lithuanian, and other Languages;" and to "Language, and the Study of Language," by Professor W. D. Whitney.

*a.* The creation of man has its place in the legends of Greece, in the beliefs of India, in the cosmogony of Peru, and in the traditions of the tribes of North America, of the South Sea Islanders, and of the Dyaks of Borneo.

*b.* The Garden of Eden has its counterpart in the City of Brahma, as described by the Vishnu Purana ; it has its representation also in the Grecian fable regarding the Garden of the Hesperides, with which every well-taught schoolboy is familiar ; and the encircling of the garden by high mountains, the golden *apples*, the mysterious *tree*, the watchful *serpent*, the destruction of the serpent by Hercules, and the relation of Hercules to Jupiter, are obviously suggestive of the Scripture narrative.

*c.* The Temptation and the Fall have their record in the Greek legend regarding the lovely Pandora, who was sent by Jupiter to punish the human race. Yielding to her fatal curiosity, she opened the closed box which Prometheus had given to her, and diseases and wars sped forth.

*d.* Traditions as to man's innocence, happiness, and freedom from disease, as to his having yielded to flattery in an evil hour, or to the temptation of a woman, and as to his having lost therefore his early intellectual and moral preëminence, prevailed in China, Thibet, Persia, Ceylon, and India.

*e.* The division of time into weeks has been almost universal, and the prevalence of serpent-worship has been such as to be of itself a strong argument for the unity of the race. In Mr. Ferguson's most remarkable

work on "Tree and Serpent Worship," we have practices described which unite Asia, Africa, and Europe. In Madagascar, the Friendly Islands, and in various parts of America, the serpent has been either held in the greatest reverence or worshipped.

*f.* There existed traditions of the Deluge in China, India, Persia, Egypt, Greece, and the Roman Empire; in the scattered islands of the Pacific; in America—North and South; amid the Indian tribes in sunny prairies, and the Cree Indians moving amid the enduring snows of the north.

*g.* Sacrifices were offered in the different parts of the earth, and among all peoples. Religious rites, sacrificial or expiatory, prevailed from Athens to Upsal, from Egypt to China, and in various portions of the American continent.

These traditions, of which we have given only a very general outline, constitute a cumulative argument in favor of *one* race, which cannot be ignored or set aside. Their prevalence is utterly inexplicable, except through the Bible narrative. On its basis alone can we so adjust the facts of science, and the common traditions of dissimilar races, as to realize perfectly harmonious results.

(4.) *Mental and Moral Endowments.*—Even those who accept the Darwinian theory in whole or in part, admit that the intellectual and moral superiority of man is such as to separate him from all other creatures. Whatever differences of opinion may exist regarding man's physical relations to the lower animals, there is none in reference to his intellectual and moral superiority.

In the language of Scripture, man is made "in the image of God." The description is singular, to define a singular result. Man's standard is not of earth, his aspirations are upward; he has elements in his spiritual nature which separate him from the world he dwells in. The Bible makes no limitation, and draws no distinction. As we have already explained, God made man capable of knowing, reasoning, and loving. While the body demands food, the mind seeks truth. It thirsts for knowledge; hence, it is said of man, by the great Teacher, that, in the highest sense, he "shall not live by bread alone, but by every word that proceedeth out of the mouth of God." Matt. 4:4. There is, further, a consciousness of right and wrong. He has a discriminating and distinguishing power. Perverted in its uses it may be, but still it works. Man has also a moral faculty. Conscience may slumber or be inactive, but the power is there to be acted on. In his most sunken state, he has a capacity for religion. He can be taught to look to God, and to a home in the Unseen. On these plain truths we need not dwell; the question which connects itself with them is, admitting these facts, are they so present in all races as to prove them one in origin?

American controversialists, compelled by anatomy and physiology to give up the idea of difference of origin as dependent on man's physical structure, spent their energies in the attempt to prove that the negro race was not only intellectually inferior, but morally unimprovable. They denounced him as devoid of feeling, weak in intellect, and defective in moral principle; but their proof has

completely failed. Tried by tests common among ourselves, the negro disproves their assertions.

Negroes have shown all the qualities of our emotional nature. Unexpected circumstances produce surprise or astonishment, and unexplained events, wonder; the beautiful evokes admiration, and the sublime, awe; kindness lights the eye with gratitude, and the amusing creates laughter; sorrow bedews the cheek with tears, and bitter remorse follows the memory of a crime or a wrong. These emotions and these moral influences bind us all together. "Indeed," says an accurate observer, "the feelings of negroes are extremely acute. According to the way in which they are treated, they are gay or melancholy, laborious or slothful, enemies or friends. The throb of manly affection, and the tear of brotherly sympathy—a glittering gem on a swarthy cheek—are of themselves touches of nature making us all one."

Their intellectuality, also, has been denied. Ignorance and degradation are the facts adduced in proof; but history vindicates their title to great mental resources. Has not the Ethiopic race left traces of its prowess not only in Africa, but in Central Asia? Debased and sunken tribes in swampy regions, it is true, fringe the Atlantic coast; but they are exceptional. Inland, the tribes are intelligent and powerful.\* Try even the lowest of the negro tribes, and what will they not accomplish; give them scope, and they will show the ordinary results of civilization. Dr. Hamilton of Mobile, whose

\* The late despatches of Dr. Livingstone have proved beyond question what was before in part maintained.

opportunities of observation were very extensive, has said, "That there is, in comparison with the white, any essential inferiority of intellect native to the negro, the observation and experience of nearly thirty years of familiar intercourse with whites and with blacks, as a minister of religion, would never lead me to believe. A difference there certainly is in the intellectual character as well as in the physical organization of the two races; but a decided and essential inferiority of the one to the other, in point of intellect, I cannot discern."\*

Of their skill as carpenters and watchmakers, of their taste in drawing, of their musical talents, of their capacity in physical and mathematical science, many proofs might be given from the writings of those who have had opportunities of personal observation. Blumenbach has declared that entire provinces of Europe might be named in which it would be most difficult to find in correspondents of the French Academy such good writers, poets, and philosophers, as are some of them.

*a.* All men have a higher power than intellect—they have conscience. While Intellect and Will, separating man from all beneath, make him a person, Conscience makes him moral and responsible; it gives the idea of right and wrong, and is the basis of natural law. It does not affect the argument to say that a common standard in different tribes and nations has not been found, and that moral judgments therefore differ. It is enough that there is any standard. The most debased criminals in our land, who have set law at defiance, calculate on trial

\* "The Pentateuch and its Assailants," p. 319.

and justice. The most sunken races have their rude way of settling disputes. "The principles on which men reason in morals," says Hume, "are the same, though their conclusions be different."

*b.* All races have capacity for the higher exercises of religion. It is not necessary to enter into the dispute as to some tribes being destitute or not of every idea of even a remotely religious kind; the question is, Have they capacity for religious teaching and a religious life? No one who has denied this has given proof of his assertion. Experience alone can substantiate such opinions. Christian missionaries have never yet told us of an irreclaimable and unimprovable tribe. That differences exist in aptitude of intellectual and moral culture, every one admits. They are common in all civilized nations, as well as among savage tribes; but races the most sunken and debased have been uplifted and refined. Culture cannot, and does not, impart a single intellectual and moral force not originally existent in man, but it evolves forces, however long-neglected and dormant; and their appearance constitutes a new testimony to the unity of our race. To these and similar results we shall more fully advert when we have to consider the bearing of the Gospel message on the human race.

*c.* Another peculiarity, common to all races, meets us in the fact that there is naturally no love of the CREATOR by the creature, nor gratitude by the constantly upheld to the UPHOLDER. Is it not strange that man should everywhere fear, and not love, God? Is it not unnatural that, while thankful to his fellow-creature for

kindness, man should be unthankful to his God, and unmindful of him, except when compelled by uneasiness of conscience to honor him by a routine of external observances? There is only one explanation, and that is, a universal opposition to the holiness of a loving and merciful FATHER. There is a sense of depravity, there is a feeling of wrongness, and there is, consequently, the gloom of *fear* where there should be the glow and the confidence of love. Powerful as is this darkening influence, Natural Science cannot discover nor deal with it. "It lies where the tests of chemistry cannot detect, nor the knife of the anatomist reach it, nor the eye of the physiognomist discern, nor the instrument of the phrenologist measure it. It lies in the depth of the soul, and comes out in the remarkable fact that, while all the hues of the skin differ, and the forms of the skull and the features of the face are cast in different moulds, the features, character, and color of the heart are the same in all. Be he pale-faced or red, tawny or black, Jew, Greek, Scythian, bond or free, whether he be the civilized inhabitant of Europe, or roam a painted savage in American woods, pant beneath the burning sun, or, wrapped in furs, shiver amid the Arctic shores, (as in all classes of society, so in all races of men,) "the heart is deceitful above all things, and desperately wicked;" "the carnal mind is enmity against God." The pendulum vibrates slower at the equator than the pole; the farther north we push our way over thick-ribbed ice, the faster goes the clock; but parallels of latitude have no modifying influences on the motions of the heart. It beats the same in all men, nor

till repaired by grace does it in any way beat true to God."\*

In bodily structure, in language, in tradition, and in intellectual, moral, and religious character, we find abundant evidence to prove unity of race; and there is the amplest confirmation of it in the character and extent of the Gospel or Christian scheme. It assumes unity, and it comes with a free, full, universal message. The Great Teacher and Redeemer drew no distinction: "Go ye therefore, and teach ALL nations, baptizing them in the name of the Father, and of the Son, and of the Holy Ghost, teaching them to observe all things whatsoever I have commanded you." Matt. 28: 19, 20. The message is for all; it is everywhere needed; teaching is to be the process, and ALL are assumed to be capable of instruction and obedience. The doctrine of diversity of origin, and of distinct and lower races, is inconsistent, not only with the facts and principles of different sciences, but with the direct teachings of Christianity.

\* Dr. Guthrie. "The Gospel in Ezekiel," pp. 40, 41; abridged, 1863.

## CHAPTER IX.

WERE OUR FIRST PARENTS SAVAGES?—RECENT THEORIES AS TO THE ORIGIN OF CIVILIZATION CONSIDERED IN RELATION TO SCRIPTURE AND HISTORY.

Even if we had not Revelation to guide us, it would be most unphilosophical to attempt to trace back the history of man, without taking into account the most remarkable facts of his nature—the facts of civilization, arts, governments, speech, his traditions, his internal wants, his intellectual, moral, and religious constitution. If we will attempt such a retrospect, we must look at all these things as evidence of the origin and end of man's being; and when we do thus comprehend in one view the whole of the argument, it is impossible for us to arrive at an origin homogeneous with the present order of things.—PROFESSOR WHEWELL.

WHAT was man's primeval condition? Were our first parents savages? Are we descended from "some creature not worthy to be called a man"? Is civilization the commencement of human history, or its close? Is it a natural evolution of savage life, or is it dependent for its origin and growth on influences external to man? Is it ever flowing and ebbing within definite and ascertainable limits? Does it reach a maximum only again to sink, or is it carrying with every apparently fitful advance the elements of expansion and of ultimate stability? These are questions which the eager thinking of the age is forcing upon us, and compelling us to answer. Repeated discussions in meetings of the British Association for the Promotion of Science; elaborate works, such as those by Darwin, Spencer, Wallace, Sir John Lubbock,

and Tylor; and powerful articles in our serial literature; show the importance that is attached to this subject, and represent facts and inferences which, be our belief what it may, ought not to be summarily rejected. They claim a sifting yet candid examination; and we should be able, on the basis of science and history, as well as on that of Scripture, to found reliable conclusions regarding the origin and progress of civilization.

The discussion has not been satisfactorily prosecuted, because of the want of agreement as to the constituent elements of barbarism and civilization. Wherein lies the difference? What line separates the two? How low must a man sink to become a savage? How high must he rise to be ranked among the civilized? What kind and what amount of knowledge may be held sufficient to separate the civilized from the savage? Of what mechanical appliances must he be capable, what intellectual resources must he command, and what moral and religious sentiments must influence or control his life?—are questions which have not yet been definitely answered. No attempt has been made to give a scientific definition of either barbarism or civilization, and the consequence is a prevailing haziness in all the reasoning which we have been constrained to follow. Sir John Lubbock has not made the attempt; nor did Archbishop Whately; nor has the Duke of Argyll, although in his "Primeval Man" he has specified this very defect. In his late work, Sir John Lubbock has distinctly refused to give any definition. "In truth," he says, "it would be impossible in a few words to define the complex organization which we

call civilization, or to state in a few words how a civilized differs from a barbarous people. Indeed, to define civilization as it should be, is surely as yet impossible, since we are far indeed from having solved the problem how we may best avail ourselves of our opportunities, and enjoy the beautiful world in which we live."\* We are disappointed by this excuse. In a discussion of this kind, involving so much that is of vital interest, it is impossible to proceed in safety without some first principles as our guide, and some end or object as our goal. Without these, we grope through mists, and are distracted by different standards. M. Guizot, in his well-known "History of Civilization in Europe," has recognized the importance of distinct ideas as to the meaning of the term, and has elaborately stated what are those conditions of society which in his view represent civilization. Although he does not give a scientific definition, he states with such clearness, descriptively and hypothetically, what individual, social, and political interests are embraced by it, that we can read with ease and comfort his truly philosophic discussion; and even when we do not accept his conclusions, we are prepared to admit how harmoniously they fit into the descriptive hypothesis which he has given at the commencement. While his work has a different basis from that of Sir John Lubbock, and a less comprehensive aim, it illustrates the close philosophic treatment which the subject must yet receive in the new relations in which it has of late been discussed.

\* "On the Origin of Civilization and the Primitive Condition of Man,"  
P. 339.

The refusal of Sir John Lubbock to state what, even in a general or comprehensive sense, are the distinguishing features of the civilization regarding which he writes with such fulness, is unsatisfactory. It leaves everything in confusion. Let it be understood that it is not a logical definition of civilization as it should be, nor any explanation of its material effects as they now appear, which we desiderate, but unambiguous references to such principles in mental and moral life as should control material results without being absolutely dependent on them. It does not avail to say that it is "impossible," because we have not "solved the problem how we may best avail ourselves of the opportunities and enjoy the beautiful world we live in." On what does this enjoyment depend? On material acts, with the luxuries they bring? or on mental and moral resources without them? or on both? It is surely not too much to expect from one who undertakes to explain to us "the origin of civilization," that he state in what sense he uses this term, and how much it implies in relation at least to those facts which he describes. There are surely some first principles which, operating in society, create civilization; or there are at least some facts which, when they do appear, determine its necessary conditions.

As the opinions which have of late been thus influentially promulgated, would, if correct, not only render the Bible unworthy of acceptance, even as an historical document, but displace the whole Christian system as a Force elevating and refining the human race, it is incumbent on all to examine, with the greatest care, the reasoning

by which their conclusions are supported. We therefore propose to examine the subject—First, generally in its relation to the Bible and to History; and Second, more minutely, in its relation to the Mental Faculties, the Moral Sense or Conscience, and Religion.

#### I. RECENT THEORIES IN RELATION TO THE BIBLE.

Although we do not meet in the Bible with the term “civilization,” nor with any formal delineation of that complex social organization which the word now implies, we have the principles clearly defined and the duties firmly enforced on which its origin, growth, and stability depend. They are moral rather than intellectual, and spiritual rather than material.

Apart altogether from the question of inspiration, and assuming the Scriptural record to be not less worthy of acceptance as a mere history, or as suggesting a theory, than are those statements in books of travel which have been so lavishly used, we may fairly enough refer to the view which it gives of the origin of civilization, and claim for it respectful consideration. It expressly states that “man was created in the image of God”—that is, that he was not only intellectually but morally great; that he acted from holy motives; that, in his highest and most ennobling vocation, in fellowship or communion with the BEING whose spiritual image he bore, he had an exhaustless source of true happiness. By *spirit*, human character is to be determined, and not by the industrial or the fine arts, or by any external details whatever; these may shed light on the general

attainments of a community in certain directions, but there may be a large amount of civilization without as well as with them. This depends on the possession of certain distinct ideas of man's relations to God and to his fellow-men. Let him but know that "God is, and that he is a rewarder of them that diligently seek him," and the external circumstances will gradually adjust themselves to expanding secular knowledge in both its principles and their applications. The civilization of our first parents, in its relation to this knowledge, was very high; but in its relation to mechanical art it was at the outset necessarily very low—as low, probably, as can be conceived. It is not required for our argument to infer, with Archbishop Whately, that God taught them any mechanical arts. He gave them quick perceptions, ready and accurate reasoning power, and consequently facility of application, according to the exigencies of their life. And this is all that was necessary, in our subsequently changed condition, for the origin of those complicated arrangements which are summarized by the term civilization. In clearly defined ideas of the being and character of the Deity, in a sense of dependence on God, in the consciousness of needed forgiveness and acceptance, and in the recognition of the claims upon us of our brother man, we have the basis of a permanent civilization. Nations that have risen to greatness, and been deemed civilized, reached their commanding height only through the measure of truth which they held even in partially distorted forms, but empires perished when at last the truth was wholly lost.

False religions can live only by the truth which vitalizes them, and national histories are continued only on the same conditions. The splendor of Egypt, Chaldæa, Persia, Greece, Rome, vanished in gloom only when almost every moral principle had been buried in corruption; and national resuscitation became possible only through a restoration from without of vitalizing and controlling truths.

All this is assumed in the Bible. It does not formally expound the conditions of civilization. Its descriptions and its precepts take for granted this recognition of moral principles by both individuals and nations. Men may read the Bible and miss this somewhat subtle pervading influence, or they may detect and feel it from the outset. A thoughtful American writer has thus referred to this difference: "The *things* in which an elevated social economy reveals itself to political wisdom, are not at all obtrusive upon the foreground of Scriptural thought. Wealth, art, literature, science, urbanity of manners, domestic comfort, institutions of charity, free governments, these are not the salient themes here, either of argument or of promise. A reformer might study pages of this volume, covering a thousand years of history, and not discover that inspired minds ever thought of any such sort of thing; yet a wise man, instructed in God's wisdom, may traverse the same ground, and so discern the gravitating of principles towards social results as almost to imagine that inspired minds thought of nothing else."\*

\* Lecture by Rev. Austin Phelps, D. D. Boston Lectures. "Christianity and Skepticism," p. 38. 1871.

Eastern nations retaining some such truths as we have referred to, represent, in varied forms, a civilization different from that of Western nations. Of them all it may be said that they are fixed ; their modes of thought, their manners, their arts, their superstitions, are cast in unvarying moulds, which must be broken to give the freedom which brightens the West ; and the Bible, with its varied truth and impelling force, is the one power, we believe, which is destined to do it. What it is doing in Western it will also do for Eastern nations. When it is studied, and is *accepted* as a regulating book, it will speedily accomplish what neither commerce and peaceful intercourse, nor the turmoil of war, can ever achieve : the truth shall make these nations free in spirit and free in the introduction and enjoyment of the useful and ornamental arts. The Bible alone is the fontal civilizing force in the world, and it is gradually changing the historical character of our race.

The chief defect in the expositions of recent theorists is their omission to record the influences of Bible truth, and those revolutions in feeling, thought, and outward life which Christianity has so strikingly accomplished. As historical elements, these are incomparably worthier of acknowledgment than many of the traditions and customs which they delineate with such diligence and care. And not until all the more prominent intellectual and moral results which Christianity is evolving are taken into account, as well as the peculiar phenomena of barbarism, can we have an approach to such a philosophic discussion of the whole subject as its vital importance demands.

This, so far, is mere assertion, but so also is the statement on the other side, that we are descended from some creature not worthy to be called a man, and that the whole complex system of modern civilization has been slowly evolved from some creature without a single idea in its head. This is assertion against assertion, it is true, with this important difference, however, that we include in our system the facts of Christianity as processes in history. But let us here carefully examine those views which are stated in support of

## II. RECENT THEORIES IN RELATION TO HISTORY.

Sunken as are the Fuegians and Bosjesmen, they are not low enough for our supposed origin. The ordinary term *savage* does not carry us far enough back in history, nor far enough down in the scale of being, for that dishonoring origin which has been assigned to us. Whether that creature not worthy to be called a man was below or above the ape and the gorilla, does not clearly appear. Our parentage is uncertain. The beings with which or with whom our race began, are represented as but one remove from irrational animals. Man's instincts, intelligence, reason, habits, are so near those of the lower animals, that it is delicate to separate them; and from such a beginning, they tell us, have arisen the intellect, the reason, the science, the arts, and the prospects of this nineteenth century.

The various stages in the long process have been artificially marked. The prehistoric ages have been divided into indefinite periods, dependent for their distinction on

the chief materials used in war, or for agricultural and domestic purposes. These periods, representing advancing stages in civilization, are, according to Sir John Lubbock, (1) the *Palæolithic*—that is, the old-stone period, when men used and could use only rough stones; (2) the *Neolithic*, or new-stone period, when men had taste and skill enough to polish their stone implements and make flint-headed weapons; (3) the *Bronze* period, when armor and cutting instruments of every sort were made of bronze; and (4) the *Iron* period, when the instruments and implements of former ages have given place generally to those of iron, and represent chiefly the civilization of the century in which we live.

This division has a certain degree of historical appositeness, but we deny that there is evidence adequate to prove that man has gradually passed through them all upward to the highest pinnacles of the present age.

The *process* of growth or expansion has been variously described, but by none with greater succinctness and felicity than by the late Archbishop Whately. Although holding an opposite conclusion, he does full justice to the reasoning of his opponents:

“It was long commonly taken for granted, not only by writers among the ancient heathens, but by modern authors, that the savage state was the original one, and that mankind, or some portion of mankind, gradually raised themselves from it by the unaided exercise of their own faculties. . . . You may hear plausible descriptions given of a supposed race of savages subsisting on wild fruits, herbs, and roots, and on the precarious supplies of

hunting and fishing ; and then, of the supposed process by which they emerged from this state, and gradually invented the various arts of life, till they became a decidedly civilized people. One man, it has been supposed, wishing to save himself the trouble of roaming through the woods in search of wild plants and roots, would be-think himself of collecting the seeds of these, and cultivating them in a plot of ground cleared and broken up for the purpose. And finding that he could thus raise more than enough for himself, he might agree with some of his neighbors to exchange a part of his produce for some of the game or fish taken by them. Another man, again, it has been supposed, would contrive to save himself the labor and uncertainty of hunting, by catching some kind of wild animals alive and keeping them in an enclosure to breed, that he might have a supply always at hand. And, again, others, it is supposed, might devote themselves to the occupation of dressing skins for clothing, or of building huts or canoes, or of making bows and arrows, or various kinds of tools, each exchanging his productions with his neighbors for food. And each, by devoting his attention to some one kind of manufacture, would acquire increased skill in that, and would strike out new inventions.

“And then, these supposed savages having in this way become divided into husbandmen, shepherds, and artisans of several kinds, would begin to enjoy the various advantages of division of labor, and would advance step by step in all the arts of civilized life.”\*

\* “Exeter Hall Lectures,” pp. 9–11. 1854, 1855. James Nisbet & Co.

This statement, in so far as it relates to the gradual division of labor, may be accepted as probably correct ; but the question at issue is not, Whence the savage? that has been already discussed by us, but, Supposing the savage existent, whence these processes? from natural impulses or intuitions, or from external teachings by a higher tribe? "They cannot be originated by savages," says the one party. "They can be originated by no other," say their opponents.

"Such descriptions as the above," says Whately, "of what is supposed has actually taken place, or of what possibly might take place, are likely to appear plausible ; but, on close examination, their suppositions are found to be completely at variance with history, and inconsistent with the character of real savages. Such a process of invention and improvement as that just described, is what we may safely say never did and never can possibly take place in any tribe of savages left wholly to themselves."

Without committing ourselves to the strong affirmation that such a "process never can possibly take place," it is enough to inquire whether any such process has ever been known to have taken place among "savages left wholly to themselves." In that "left wholly to themselves," lies the essential difference between the two systems or theories of civilization.

Sir John Lubbock, and the ethnologists whom he represents, have set themselves to prove the opposite of Whately's conclusion, and both their scholarship and character entitle their opinions to our best consideration.

Leaving out of view, in the meantime, the teachings of Scripture, let us test their theory on its own merits, and endeavor to judge of it on the basis of history and science, as we should do in the case of any theory not running counter to any cherished belief or tradition.

Two questions at this stage suggest themselves: first, Is the test or standard adopted sufficient to determine the difference between barbarism and civilization? and, second, Suppose the standard accepted, do the facts of history establish their theory?

The standard is unsuitable. Fundamentally, the theory is erroneous, for the following, among other reasons:

1. It is defective, in making the industrial and mechanical arts alone the standard by which to test degrees of civilization. It is difficult to find a common test; but the one adopted, though in many respects good, is so inadequate in important particulars, that it cannot warrant comprehensive conclusions. The theory fails to recognize *personal* culture apart from its mere material expression, and therein lies a fatal weakness; for high culture and many of the aspirations and sympathies of comparatively refined life, may subsist amid the very rudest industrial arts. Measured by the marvellous attainments of this Iron period of ours, the ages of Homer and Herodotus would be gloomily barbarous. Had their writings been lost; had the "Iliad" of the one and the history of the other—productions to which our best British scholars and statesmen have given so much of their leisure and cultivated thought—never been heard

of ; and had only the rude remains of these early times come to us in some loose fragments, we should have been resting on utterly erroneous conclusions regarding both the period and the people.

“No proof, if proof there be, that primeval man was ignorant of the industrial arts, can afford the smallest presumption that he was also ignorant of duty, or ignorant of God. This is a fundamental objection to the whole scope of Sir John Lubbock’s argument. It interposes an impassable gulf between his premises and his conclusion.”\* This objection Sir John Lubbock has attempted to obviate, but without success. While we can acknowledge gradual advance from lower to higher degrees of skill in mechanical arts, without admitting that any one state of art necessarily represents finer feelings, nobler thoughts, and a more generous or holier life than the other, he and others are so restricted by a narrow theory, that they cannot include all the facts of intellectual and moral life.

The ancient Germans, Gauls, and Britons, as described by Cæsar and Tacitus, were *savages*; yet they “cultivated their land, kept cattle, employed horses in their wars, and made use of metals for their weapons and instruments.” They had some of the commonest evidences of civilization, and we are not in circumstances to estimate fairly their personal culture, but we may infer that it was even higher than these evidences indicate.

If we make industrial arts alone the test of civilization in Scotland and England, we should arrive at most

\* “Man, Primeval,” by the Duke of Argyll, p. 132.

erroneous conclusions regarding even comparatively recent times. And were we, indeed, at this moment, to estimate the character of the people in some districts of the Highlands of Scotland by their dwellings, their agriculture, and their simple habits, we should completely misunderstand and wrong them. We should possibly represent as ignorant and barbarous, numbers of the most intelligent of our countrymen, and, viewed in the light of morality and religion, the most civilized of the British Empire, because their dwellings are the abodes of truth, and honor, and piety. Though their hamlets or clachans may be little better than a series of architectural hovels, the inmates are notwithstanding brave, courteous, and refined; they need not the dramas of Shakespeare or the epics of Milton to give them their share of the common splendors of their country; for while they may have these, they have, besides, that higher lustre which is invariably diffused by the Psalms of David, the blending poetry, prophecy, and theology of Isaiah, the narratives of the evangelists; and the doctrines of the great Teacher who spake truth as never man spake it.

2. The theory is defective also in not making sufficient allowance for the coexistence of barbarism and civilization at the same period in different parts of the world. Facts gathered in a single narrow district, or in contiguous territories, have been made the basis of plausible inference and the source of elaborate proof, when the facts of distant territories and corresponding periods would have shown other processes and another result.

When Cæsar, for example, was carrying his triumphs onward to Britain, through the comparatively rude dwellings of Gaul, splendid palaces glittered in Eastern empires; and long before his time, when Egypt, Assyria, and Persia were powerful in their military equipment and refined in their art, savage tribes hovered on their verge, or wandered in distant regions.

While we find in the history of the world, contemporaneously, in different kingdoms, the art evidences of barbarism and civilization, we have them no less distinctly coexistent in the same district or kingdom. They are not connected as growth, part with part. Vases, cylinders, and engraved signets have been discovered, mingling with knives of flint or chert, stone hatchets, hammers, nails, and adzes. In Mexico and other parts of America, the facts of a high civilization antedate those of ignorance and degradation. Periods so commingle facts which should on this theory lie ages apart, that reasoning founded on their historical sequence must be received with the greatest hesitation and care.

3. It is perfectly clear, judging from facts in the present age, that emigrants from civilized communities may have speedily lapsed into barbarism. The industrial arts of Britain are high; but how many wanderers, leaving their homes and the refinement of their country, may betake themselves to distant regions without the least fitness to introduce any of either the mechanical or the fine arts? How few, comparatively, of our emigrating families know anything whatever of those industrial agencies which have made their country great; or, if

they knew them, could turn them to practical account? Skilled artisans would soon find their experience valueless; and with the first generation the refinements of another land and an early home would disappear; and thus might a savage race have its origin or first roots in no ordinary civilization. That both prehistoric and historic times have seen such changes, cannot be doubted. "Even now," says Wilson, "the skill of the American miner has to be imported, and the copper miners of Lake Superior are almost exclusively derived from Cornwall, or the mining districts of Germany. . . . The old Dutchman exported his bricks across the Atlantic, wherewith to found his new Amsterdam on the banks of the Hudson; and the English colonist, with enterprise enough to mine the copper veins of Lake Superior, still seeks a market for the ore in England, and imports thence both the engineers and the iron wherewith to bridge his St. Lawrence." After adverting to the migration of Asiatic tribes, he adds: "Their industrial arts were all to begin anew; and thus, wherever we recover traces of the first footprints of the old Nomad in his wanderings across the Continents of Asia and Europe, . . . we find that the Stone period is not necessarily the earliest human period, but only the rudimentary condition to which man had returned, or may return again, in the inevitable deterioration of a migratory era."\* Such processes and such results have, doubtless, often come and gone. Although skilled races in prehistoric ages have not left us art fabrics or other products to indicate their degree of

\* "Prehistoric Man," by Daniel Wilson, vol. 1, pp. 143, 144.

civilization, and emigrating bands cannot stamp on distant regions the material impress of that civilization from which they departed, both have been real, and brought into the solitudes of their chosen abodes the refined feelings and the social intercourse of their early homes. This refinement no art structure or fabric could embody or represent; but in a generation or two it would probably be completely lost, although, in some instances, it may have run for centuries through patriarchal tribes of olden times, and not a trace of their intellectual vigor, and moral worth, and kindest sympathies can now be found.

It is only by a comprehensive and careful survey of the facts which Asia and America, as well as Europe, are giving, that any reliable conclusions can be gained. The attention has hitherto been too exclusively fixed on European evidence or facts, while the key to the interpretation of the whole has been lying for ages in the East. In short, this classification of Periods, while very convenient, and in some respects just, is so devoid of scientific accuracy that it cannot be accepted as the basis of conclusions regarding the *whole* human family. It demands special geographical and physical conditions for the start of the first human pair, without which the first two periods—the Palæolithic and the Neolithic—might form no distinctive part of human history. There are, for instance, vast territories in which stones are as scarce as in others metals are. South American tribes have been thrilled into ecstasy by finding pebbles; and in the wide alluvial plains of Chaldæa, stones are not

available for common implements. If, in some such districts of these, the first pair and their successors had run their history, the stone age probably could not have been known, as those who wandered into stone districts should have made such progress as to dispense with them, at least in their rough and unhewn state. Men living in a comparatively stoneless territory, like that of Mesopotamia, may indeed possess those qualities of a high civilization which, though but very slightly visible in mechanical arts, may yet go forth in genial public combinations, in kindly companionship, elevated thought, and religious observances.

Again, it has, curiously enough, been concluded by Sir John Lubbock that savages do not sink; that they rise, but do not fall back. "It is a common opinion," he says, "that savages are, as a general rule, only the miserable remnants of nations once more civilized; but although there are some well-established cases of national decay, there is no scientific evidence which would justify us in asserting that this is generally the case. No doubt there are many instances in which nations, once progressive, have not only ceased to advance in civilization, but have even fallen back. Still, if we compare the accounts of early travellers with the state of things now existing, we shall find no evidence of any general degradation. The Australians, Bushmen, and Fuegians lived, when first observed, almost exactly as they do now. In some savage tribes we even find some traces of improvement; the Bachapins, when visited by Burchell, had just introduced the art of working in iron; the largest erection in

Tahiti was constructed by the generation living at the time of Captain Cook's visit ; and the practice of cannibalism had been recently abandoned : again, out-riggers are said to have been recently adopted by the Andaman Islanders ; and if certain races—as, for instance, some of the American tribes—have fallen back, this has perhaps been due, less to any inherent tendency, than to the injurious effect of European influence. Moreover, if the Cape of Good Hope, Australia, New Zealand, etc., had ever been inhabited by a race of men more advanced than those whom we are in the habit of regarding as the aborigines, some evidence of this would surely have remained ; and this not being the case, none of our travellers having observed any ruins or other traces of advanced civilization, there does not appear to be any sufficient reason for supposing these miserable beings to be at all inferior to the ancestors from whom they are descended.”\*

It would not be an easy task to find a single passage in which assumptions, unsustained by the slender facts adduced, are made the chief support of a generalization so sweeping as that savages do not sink ; and, indirectly of the inference, that, without external aid, they rise. Sir John finds in the accounts of early travellers, as compared with the present state of things, no evidence of any general degradation ; but the fact is, that those to whom he refers—the Australians, the Bushmen, and the Fuegians—cannot sink lower without disappearing altogether. Should they not, on this theory, be ere now showing tendencies upwards ? He quotes the Bacha-

\* “Prehistoric Man,” pp. 337. 338. First Edition.

pins, Tahitians, and Andaman Islanders, as giving some evidences of improvement; but he cannot prove, what is specially needed in the discussion, that they were not visited by some who introduced improvements, or that they had not received some stray traveller who stimulated them to new exertions. Admitting that there might be occasional movements somewhat in advance of sheer barbarism, they are not sufficient to counterbalance all the facts which prove sameness in savage life. His connecting the degradation and decay of American tribes with European influences, is a mere assumption. If the germ of progress really exists in savage life, contact with a civilized race should quicken it and give it scope. His inference that, if the miserable aborigines of the Cape of Good Hope, Australia, and New Zealand had ever superior ancestors, traces of their existence should be found, is altogether unwarranted; for it is quite possible, as we have already shown, that those who have emigrated from civilized communities, and have carried with them to desolate or unpeopled regions a knowledge of some of the arts, might soon lose them, because inapplicable, or, in their new circumstances, useless; and in a generation or two the families would be found, in harmony with the resources of their country, subsisting like savages, dependent on fruits, on fishing, on hunting, or occupying a somewhat higher sphere as keepers of sheep or cattle. Nothing, in all probability, has been more common in the past, than that two or three families having been swept from the civilization of Asia to some of the neighboring islands or more distant continents, and having

been cut off from all intercourse with their parent community, should leave behind them as successors those who, in a generation or two, would roam exultingly in the wild freedom of the savage. To expect traces of early civilization in such outlying regions, is contrary to the probabilities of history, and shows to what weak reasoning a theorist will have recourse, even when he is distinguished by merit as well as accomplished and independent; but to expect traces of civilization in the central regions of early emigration, is perfectly natural on our side of this question, and we are not only bound, but are prepared, to show them.

It is not a little surprising to find so deliberate a thinker as Sir John Lubbock asserting that there is *no scientific* evidence which would justify us in inferring that, as a general rule, savages are the remnants of nations once civilized. Of course, if he means by this that civilized nations once existed where savages are now found, as ruins lie on the site of an old castle, no one will assert that this is the "general rule." The ancestors of savage tribes have wandered to new regions and sunk; and a strong, if not indeed an irresistible argument in favor of this view, is to be found in the almost universal traditions which have been known to prevail in nations and tribes the most remote from one another. Their arts have perished where their traditions have survived. With the histories of Egypt, Babylon, Greece, and Mexico, in his hand, it is perplexing to hear a philosophic observer still demanding scientific evidence of degradation and decay.

But why should savages be stationary, while nations once civilized retrograde? What barrier to descent is there in the life of the savage? What physical or mental obstacle is it that checks his downward career? If man has been developed from some creature not worthy to be called a man, why may he not relapse into that unworthy creaturehood? Scientific evidence is *decidedly* in favor of such a recurrence. Civilization is, on this theory, correspondent to domestication of the lower animals, and, as is well known, when they are left free, they not only return to their early modes of life, but assume their first appearance. The horse, when permitted to sweep without restraint over the wide pampas of South America, shows not new but *original* qualities; and even the stiff, slow, lumbering hog, losing in freedom "the lethargy of the sty, exhibits the fierce courage of the wild boar." Then, why is it that man, left free and untutored, does not sink in accordance with this law, even lower than Fuegian or Bushman, and exhibit the wild freedom of that strange progenitor which has not a name?

This should be the natural result, and indeed, also, in one sense, the *safest*. "To exist at all," says the Duke of Argyll, "this creature must have been more animal in its structure than man. That structure could not be changed to less of animal and more of man, without danger to his existence. If reason obtained a great start in advance, the theory of development is destroyed. Interposition—which they deny—would be implied, and even then, with such advantages as many tribes do now possess, life is most precarious. These are reckoned too

high for the start in the race, and if the lower animal structure best suited these animals, it is not likely that, by natural selection, they should ever become higher. The difficulties here represented are insuperable." If, by any process, man should reach so high a stage of improvement as we have indicated, his risks, his greater bodily weakness, and his tendency in common with all animals to revert to the original type, *should* bring him back to the early creaturehood from which he had unwisely emerged.

Whately's demand for historical evidence of ascent to civilization by any *one* savage tribe or nation, has not been met by any ethnologist. Sir John Lubbock has endeavored to overcome this difficulty, and has failed. He objects to the demand, as, in the nature of the case impossible, for the monuments are wanting. By monuments, it would be difficult, it is true, to prove the race to have been originally savage; but there has been ample time, if indeed the germs of progress exist in barbarous races, to find somewhere in rude incipient monuments evidence of vitality and growth, and some probability of future eminence. But such evidence has not been offered, nor is it ever likely to be found. There is not a vestige of proof that those who lived in Europe in the stone age, rose to that of bronze by their *own unaided skill*; but there is very clear and very decided proof that other races, breaking in upon the stone-implement communities, did introduce their bronze instruments, and that they in their turn received iron implements from an irruption of succeeding races.

Historically, stone implements should be followed by those of copper and of tin *separately*, for it is only after *both* had been in use for some time that we should expect the union of the two, that is, of the copper and the tin, in bronze utensils. The bronze, it is true, would be speedily adopted, as Sir William Wilde suggests, in preference to copper or tin, for general use, because it is harder and sharper; but still, sufficient time must have elapsed to diffuse such instruments as would have proved their introduction by invention, if there had been in any region such material historical growth as the theory assumes. But it is not so. Bronze instruments appear suddenly in the midst of stone implements, without the intermediate stage of separate vessels of copper and of tin. Sir John Lubbock has candidly admitted that the absence of implements made either of copper or of tin, indicates that "the art of making bronze was introduced into, not invented in Europe."\* But the concession is historically fatal to his theory. It invalidates the whole of his reasoning as to continuity of progress from barbarism to civilization. In Europe, these periods are not a growth, they are a series of distinct additions.

New ideas and practices were infused by some other nations. The East is the only probable source, and their introduction expresses a common origin, for the instruments are not only generally, but perfectly alike.

Mr. Wright, whose authority is unquestionable, has declared that "the bronze swords or celts, whether in Ireland, in the far West, in Scotland, in distant Scandi-

\* "Prehistoric Times," Second Edition, p. 58.

navia, in Germany, or, still farther east, in the Sclavonic countries, are the same—not similar, but identical.” Professor Nilsson traces the origin of bronze implements to the Phœnicians; and we know that in the East, bronze was common at least 800 B. C., for both Homer and Hesiod speak of them, and by an older pen than either held, it is declared in the fourth chapter of Genesis: “And Zillah, she also bare Tubal-cain, an instructor of every artificer in brass and iron.” Egypt in Joseph’s time had her sharp and polishing instruments, and, in Solomon’s time, the Sidonians were skilled in hewing timber, and the Syrians were cunning to work all “works in brass.” It is admitted by all that brass here means bronze. More than three thousand years ago bronze was common in the East, and its sudden appearance in the West, in Ireland, for instance, and in Scandinavia, not only gives evidence in favor of civilization being dependent on external influences for its progress, but sheds light on the question of time, and guides us to at least approximate dates. In short, there has been a complete breakdown in the effort to prove that, in the course of ages, the development has been continuous from the rough stone edge to the smooth, from that to bronze, and from bronze to iron.

Since Archbishop Whately sifted, with the skill of a severe logician, all the historical evidence which, up to his time had been published, there has been little added in the way of discovery or fresh observation. The facts, in the main, are old; the collocation only is new; and any intelligent reader is competent to judge of both as matters of testimony, and of the inferences which have

been deduced from them. If it had been shown, in even one instance, that any savage race had risen to a recognizable degree of civilization, without the introduction of new ideas and a higher example, there would be presumptive evidence for the truth of the theory; yet only presumption, unless it could also be shown that they had been so long sunken, that probably no recuperative power lingered from a previous state. In the descent from civilization to barbarism, a nation or tribe may preserve this recuperative force, when, in the history of individuals or of isolated tribes, it might be lost as they passed into new territories. The ancient Gauls and Germans, for example, preserved this recuperative tendency; and if such as the Australians or Fuegians ever gave any indication of self-improvement or tribe-culture, we should have the presumptive evidence which we desiderate; but even that has not been forthcoming, and as yet Whately's demand remains unmet.

Those who, through close and varied intercourse, have had the best means of judging of the condition and capabilities of savage races, have decided against this plausible theory. Humboldt, with his usual caution, has said: "The important question has not yet been resolved, whether the savage state, which even in America is found in various gradations, is to be looked upon as the dawning of a society about to rise, or whether it is not rather the fading remains of one sinking amid storms, overthrown and shattered by overwhelming catastrophes. To me the latter seems nearer the truth than the former." And Sir George Grey, at a recent meeting of the British

Association, firmly opposed the theory. He has had varied opportunities of observation, and in his view no advances have been made by really savage tribes. The stationary remain stationary, for they cannot extricate themselves, nor do they appear to have any decided desire to change their condition.

It is unnecessary to prosecute farther this part of the subject, as enough has been stated to show that the historical evidence is, in its incompleteness, similar to that of Darwin for the advance of animal life and its fabrics, the links are wanting where we should expect to find them, and where their appearance is indispensable to prove the theory. Its advocates have, with more or less frankness, confessed their inability to account for those facts and principles on which Christian apologists rest their historical argument for the truth of the Scripture record of the origin and progress of civilization.

## CHAPTER X.

WERE OUR FIRST PARENTS SAVAGES? (CONTINUED)—RECENT THEORIES AS TO THE ORIGIN OF CIVILIZATION CONSIDERED IN RELATION TO THE MENTAL FACULTIES, THE MORAL SENSE, AND RELIGION.

Christians have a right to protest against the arraying of probabilities against the clear teachings of Scripture. It is not easy to estimate the evil that is done by eminent men throwing the weight of their authority on the side of unbelief, influenced by a mere balance of probabilities in one department, to the neglect of the most convincing proofs of a different kind. . . . Thus they often decide against the Bible on evidence that would not determine an intelligent jury in a suit for twenty shillings.—  
PROFESSOR C. HODGE.

IN attempting to deduce those mental and moral results which characterize modern civilization from some creature that had not even a head in which to treasure a single idea, theorists have greater difficulties to overcome than when they endeavor to connect man's body with the lowest mollusk. No one refuses to acknowledge the existence of intelligence, memory, and some measure of reasonable power in many of the lower animals; but such an admission stops far short of connecting the human mind, by lineal descent, with intellectual germs in some gorilla, or snail, or worm, and of discovering in that lowliest origin not only the foundation of the complex fabric of our civilization, but the spring of all those ideas of immortality, responsibility, private and public duties,

eternity, and God, which shed a richer splendor over man's history than that which all the sciences and arts united can of themselves create. The advocates of this theory have utterly failed in their attempt to include in their system, and to account for, the practical lessons of Christianity. Its lofty morality, its sublime doctrines, and its "pure and undefiled religion," are left without an origin or an aim. As facts, if as nothing else, theorists are bound to account for them, or, at least, as an outcome from previous ideas. Let us examine the facts which they select from the natural history of the lower animals and of the lowest man, to constitute the basis of ultimate intellectual and moral improvement. What evidence is there that the ideas and the habits of the lower animals and the most sunken savages, so commingle as to make this theory even plausible? Is there a vestige of proof to show that there has been an intermingling of notions or practices, and that, through or by them, man has emerged to that lowest platform on which there was the first beam of civilization? What data do they present to warrant our acceptance of the sweeping conclusion that Psychology, Mental Philosophy, Ethics, and Practical Religion, or the lessons of Christianity, are deducible from even the most accomplished of the lower animals?

To that issue the theorist is brought, and he is bound to face it. If he cannot include in his exposition all the higher forms of Feeling, Thought, and Law, he should acknowledge his failure, and that we are justified in rejecting his conclusions.

Darwin, Herbert Spencer, and Sir John Lubbock,

evidently anticipating such legitimate demands as these, have resolutely attempted to satisfy them; and, in their respective fields, have adduced their strongest proofs and best reasoning. By placing in immediate connection their interlacing and sometimes conflicting expositions of each topic, we shall obtain a definite view of what has been most influential in deciding their opinion, and be the better able to do justice to them and ourselves in forming a deliberate conclusion.

But to follow this course is to find the very same kind of defective reasoning in reference to the descent of the human *mind* and the growth of civilization, of which we complained when discussing the proof for the descent of the human *body* from some primordial germ which started into life millions of years ago. There are the same unbridged chasms, the same absence of necessary links, the same inadequacy of data.

Three questions require to be answered. First, Are there any facts to show the close connection of the mind and habits of the highest of the lower animals with the very lowest of the human race? Second, Is there any evidence of a moral nature in the lower animals which can, even plausibly, be regarded as the foundation of man's moral constitution? And Third, Out of what condition is religion evolved? On what foundation does this theory place it? What is its influence on civilization?"

Darwin himself has answered these questions with such qualifications, that it is surprising to see him endeavoring to fasten together important conclusions by a

chain, broken and dissevered through the absence of its central links.

Let us next consider—

### III. CIVILIZATION IN RELATION TO MAN'S MENTAL FACULTIES.

Among British Naturalists of the highest standing, there is a general concurrence of opinion as to the gulf between the intellectual faculties of man and whatever degree of mind may show itself in the lower animals. It is impossible to connect the two. Professor Huxley speaks "of the great gulf which intervenes between the lowest man and the highest ape in intellectual power,"\* "of the immeasurable and practically infinite divergence of the human from the Simian stirps,"† and "of the present enormous gulf between them."‡ "At the same time," he repeats, "no one is more strongly convinced than I am of the vastness of the gulf between civilized man and the brutes; or is more certain that, whether *from* them or not, he is assuredly not *of* them."§

In reference to this vast break, Darwin is no less explicit than Huxley. When he is describing the *intellectual* distance between man and those creatures which are nearest him in brain-organization and force, he declares the difference to be *enormous*. "No doubt," he says, "the difference in this respect is enormous, even if we compare the mind of one of the lowest savages, who has no words to express any number higher than four, and who can use no abstract terms for the commonest

\* "Man's Place in Nature," p. 102.

† Ibid, Foot-note, p. 103.

‡ Ibid, p. 102.

§ Ibid, p. 110.

objects or affections, with that of the most highly organized ape. The difference would, no doubt, still remain immense, even if one of the higher apes had been improved or civilized as much as a dog has been in comparison with its parent form, the wolf or jackal."\* Notwithstanding this "*immense*" distance between the two, and the consequent want of the least evidence of any lineal relations whatever, he has amusingly assumed, in his "Origin of Species," that he has discovered such a mental connection of man with the lower animals as shall form the basis of a new system of Psychology. Mental science will start on a new track in search of other objects than our metaphysicians have hitherto kept in view. His statement is, "In the distant future, I see open fields for far more important researches. Psychology will be based on a new foundation, that of the necessary acquirement of each mental power and capacity by gradation. Light will be thrown on the origin of man and his history."† The contests of metaphysicians will cease, even when the phrenologist has transferred his examination of the supposed compartments of the human brain to the nervous tissues of the lower and lowest animals, and new triumphs will indeed give unexpected lustre to man's history, when he has educed from a material body that which is non-material, and from the perishing that which is imperishable. We have here a theory involving the complete and immediate overthrow of that system of mental science in which Mind is regarded as a substance distinct

\* "Descent of Man," vol. 1, p. 34.

† "Origin of Species," pp. 577, 578. 1869.

from the body, and which has been developed by some of the most accurate and powerful thinkers of recent times, advocated on the *possible* existence of facts of which there is not the slightest evidence. Mr. Wallace, who in originality and independence as a thinker and a naturalist is Mr. Darwin's compeer, rejects his theory regarding the descent of our mental faculties. There are faculties and conceptions for which, in his view, it provides no explanation. "But there is," he says, "another class of human faculties that do not regard our fellow-men, and which cannot, therefore, be thus accounted for. Such are the capacity to form ideal conceptions of space and time, of eternity and infinity; the capacity for intense artistic feelings of pleasure in form, color, and composition, and for those abstract notions of form and number which render geometry and arithmetic possible. How were all or any of these faculties first developed, when they could have been of no possible use to man in his early stages of barbarism? How could 'Natural Selection,' a survival of the fittest in the struggle for existence, at all favor the development of mental powers so entirely removed from the material necessities of savage men, and which, even now, with our comparatively high civilization, are, in their farthest developments, in advance of the age, and appear to have relation rather to the future of the race than to its actual status?"\* These questions are unanswerable, and expose the indisputable inadequacy of the foundation on which Mr. Darwin has raised his complicated structure.

\* Wallace on "Natural Selection," pp. 351, 352.

Professor Tyndall, starting with the idea of the development of life from the star dust, comes to the same conclusion, and places it before us with such vividness that it cannot soon be forgotten. "For what are the core and essence of this hypothesis? Strip it naked, and you stand face to face with the notion that not alone the more ignoble forms of animalcular or animal life, not alone the noble forms of the horse and lion, not alone the exquisite and wonderful mechanisms of the human body, but the human mind itself—emotion, intellect, will, and all these phenomena, were once latent in a fiery cloud. Surely the mere statement of such a notion is more than a refutation."\* Whether life has its origin in the "star dust," or in some germs at a later date, the process is the same, and the idea is equally absurd. We say absurd, because there is not a trace of lineal descent by which we can possibly connect with the highest and best-informed ape or gorilla the intellect of a Newton, a Bacon, a Shakespeare, or a Milton. Darwin himself has admitted that the facts are wanting and the connections hidden. We must, therefore, be excused for rejecting his inferences, and refusing to take shelter in a fabric which is confessedly without a foundation.

This view is supported by Bunsen, when he says, "No length of time can create a man out of a monkey, because it can never happen; for it is a logical contradiction to suppose the growth of *reason* out of its opposite."†

\* "Fragments of Science, and Scientific Thought," p. 163.

† "Egypt's Place in Universal History," vol. 4, p. 54.

It may not be out of place to add here, to the admissions of naturalists themselves, and to the inference of a philosopher, the opinion of one of the readiest wits and keenest intellects of his time. "What," exclaimed Sydney Smith, "has the shadow or mockery of faculties given to beasts to do with the immortality of the soul? It is no reason to say that, because they partake in the slightest degree of our nature, they are entitled to all the privileges of our nature. I confess I have such a marked and decided contempt for the understanding of every baboon I have yet seen—I feel so sure the *blue ape without a tail* will never rival us in poetry, painting, and music—that I see no reason whatever why justice may not be done to the few tatters of understanding which they may really possess."

#### IV. CIVILIZATION IN RELATION TO THE MORAL SENSE OR CONSCIENCE.

To the *second* question, also, Darwin has given a no less decided reply. Earnest as he is in claiming for the lower animals the possession of mental powers, he abandons the idea of their *morality*, and proceeds to build an ethical system for Man without any recognizable foundation. "As we cannot distinguish between motives, we rank all actions of a certain class as moral, when they are performed by a moral being. A moral being is one who is capable of comparing his past and future actions or motives, and of approving or disapproving of them. We have *no* reason to suppose that any of the lower animals have this capacity. Therefore, when a monkey

faces danger to rescue its comrade, or takes charge of an orphan monkey, we do not call its conduct moral."\* He admits that he finds *no* morality among the lower animals; but he claims a moral sense for man, and assumes that it has been educed from them by some kind of creative force in social instincts and sympathies; yet why or how the same social instincts which he traces in the lower animals have failed to create in them any germ of conscience, he does not explain. He tells us that "the social instincts both of man and the lower animals have *no doubt* been developed by the same steps;" and he infers, at the same time, that the one has become moral, while the other has remained non-moral; nor does he improve his exposition when he adds, "According to the view given above, the moral sense is fundamentally identical with the social instincts, and in the case of the lower animals, it would be absurd to speak of these instincts as having been developed from selfishness, or for the happiness of the community,"† Assuredly, if the moral sense is, as he says, "fundamentally identical with the social instincts," an incipient conscience or "moral sense" should be found manifesting itself in the instincts of the lower animals. If his theory of "descent" is worth anything, it should be marked by such a connection as we have indicated. That it is not, is the exposure of another unbridged chasm in the path of descent. In summing up the evidence for man's moral sense, he introduces elements for the existence of which, on his theory, he cannot possibly account, when he says, "Ulti-

\* "Descent of Man," vol. 1, pp. 88. 89.

† *Ibid.*, p. 98.

mately, a highly complex sentiment, having its first origin in the social instincts, largely guided by the approbation of our fellow-men, ruled by reason, self-interest, and, in later times, by deep religious feelings, confirmed by instruction and habit, all combined, constitute the one moral sense or conscience."\* What, then, of those tribes which have for generations been destitute of instruction and deep religious feelings? Have they consequently been destitute of conscience? and have there really been whole races of mankind without morality, like the beasts which perish? We thoroughly repudiate the idea of conscience being in the least dependent on social instincts for its very existence, and on self-interest for its exercise. And if it is absurd, as he says it is, "to speak of their instincts as having been developed for the happiness of the community," is it not equally absurd to speak of them as having "certainly been developed for the general good of the community"? If it is true that the lower animals have the same social instincts with man, why do they not look ahead, also, to the "general good" of the community, and give some joint token of "a moral sense," at least in germ? If the social instincts are indeed fundamentally identical in the lower animals and man, why are the results so widely different? The facts which he adduces are obviously incoherent, and his reasoning is illogical.

Herbert Spencer strikes in at this juncture with an ingenious hypothesis, which he explains and vindicates with his wonted fervor of thought and charm of diction.

\* "Descent of Man," vol. 1, p. 165.

He has boldly accounted for the origin of the "moral sense," without a single fact on which to rest his supposition. He demands from us the belief that "experiences of utility" and "nervous modifications" have been transmitted for ages, and have been so accumulated as ultimately to create or "become in us certain faculties of moral intuition." His words are, "To make my position fully understood, it seems needful to add that, corresponding to the fundamental propositions of a developed moral science, there have been, and still are, developing in the race, certain fundamental moral intuitions ; and that, though these moral intuitions are the result of accumulated experiences of utility, gradually organized and inherited, they have come to be quite independent of conscious experience. I believe that the experiences of utility, organized and consolidated through all past generations of the human race, have been producing corresponding nervous modifications, which, by continued transmissions and accumulation, have become in us certain faculties of moral intuition, active emotions responding to right and wrong conduct, which have no apparent basis in the individual experiences of utility."\* By this fine phraseology, we are liable to be imposed on, and to take it for granted that it is sustained by facts in natural history and mental science ; while the truth is, it is destitute of the least support. In the history of those animals whose instincts and experiences are best known to man through succeeding ages, there is not a vestige of improvement ; and when we turn to the records of the human race, there is not a single

\* Letter to Mr. Mill in Bain's "Mental and Moral Science," p. 722.

line of evidence to prove that, in the remotest generations, there was only an incipient moral sense, and that succeeding generations show advances in sensitiveness and strength of conscience apart from revealed truth.

This utilitarian hypothesis, which is the theory of natural selection applied to the mind, Mr. Wallace regards as inadequate to account for the development of the moral sense in savage man. The same deficiency which we noticed in accounting for the development of the mental faculties, is met when we endeavor to trace the origin of the moral sense to experiences of utility; "For," he says, "although the *practice* of benevolence, honesty, or truth, may have been useful to the tribe possessing these virtues, that does not at all account for the peculiar *sanctity* attached to actions which each tribe considers right or moral, as contrasted with the very different feelings with which they regard what is merely *useful*. . . . The utilitarian sanction for truthfulness is by no means very powerful or universal. Few laws enforce it. No very severe reprobation follows untruthfulness. In all ages and countries, falsehood has been thought allowable in love, and laudable in war; while, at the present day, it is held to be venial by the majority of mankind in trade, commerce, and speculation."\* On the utilitarian hypothesis, truthfulness could never be established or strengthened by *sanctity* or a sense of right; yet there is a mystical sense of wrong attached to untruthfulness even by whole tribes of utter savages. Some of the barbarous hill tribes of India are distinguished for

\* Wallace on "Natural Selection," p. 352.

veracity. There are those of them who "*always* speak the truth ;" and Major Jervis says, "the Santals are the most truthful men I ever met." A remarkable fact against the arguments for utility to the individual is given by Mr. Wallace : "A number of prisoners, taken during the Santal insurrection, were allowed to go free on parole, to work at a certain spot for wages. After some time cholera attacked them, and they were obliged to leave ; but every man of them returned and gave up his earnings to the guard. Two hundred savages, with money in their girdles, walked thirty miles back to prison rather than break their word !" Mr. Wallace's own experience among savages gave him, in similar instances, convincing proof of truthfulness. It is held sacred by some tribes and despised by others ; and it is difficult to understand how "experiences of utility" should leave overwhelming impressions in some tribes and none in others, or create in some "a sanctity which overrides all considerations of personal advantage, while in others there is hardly a rudiment of such a feeling." Much as Mr. Wallace holds in common with Darwin and Herbert Spencer, he repudiates their views regarding a moral sense, and holds it to be an essential part of man's nature, which could not possibly have been gradually evolved from the experiences of utility, transmitted through many generations.

As has been quite conclusively shown by Mr. R. Holt Hutton, in a remarkable paper in *Macmillan's Magazine*, there is no evidence whatever, in even a single instance, of such a transformation as Herbert Spen-

cer describes, of "experiences of utility" passing into an intuition which has become permanent as a working force in the human race. After stating that craftiness was justified by the utility of its consequences in the time of Homer's wily "Ulysses," and that the maxim, "Honesty is the best policy," was not introduced until long after the most imperious enunciation of its sacredness as a duty, Mr. Hutton adds, "Three thousand years ago at least, there is no trace of any such sanction for honesty in the literature which gave to honesty the most binding character. 'He that hath clean hands and a pure heart, who hath not lifted up his soul unto vanity nor sworn deceitfully,' 'he that sweareth to his hurt, and changeth not,' was not praised at that date as the gainer of all sorts of earthly advantages for society, but as alone able to enter into communion with God." He declares that there are no moral notions, however sacred, which have not been promulgated for thousands of years, and that the Bible had constantly to check utilitarian objections to their authority, and "utilitarian excuses for breaches of duty." He has also well observed that, if anything is remarkable in the history of morality, it is the *anticipatory* character of moral principles, the intensity and absoluteness with which they are laid down ages before the world has approximated to that ideal which had thus early been asserted.\*

The attempt, indeed, to explain away the human conscience, or to reduce it to dependence on the shifting

\* "Macmillan's Magazine," July, 1869. See also chapter 9, in Mivart's "Genesis of Species," for an able discussion of "Evolution and Ethics."

experiences of utility, and on modifications of the nervous tissues, has proved completely abortive. The common reasoning in support of the hypothesis has been condemned as fallacious by influential members of the same school, and as worthy only of rejection.

Sir John Lubbock himself, perceiving the serious objections to which Herbert Spencer's reasoning is exposed, has not hesitated to set it aside, but only to be equally unsuccessful in the substitute which he has proposed. Repudiating "utility to the individual," he advocates *authority* as the basis or origin of morality, and supports his conclusion by a reference to the ideas and customs prevalent in Australia, where the best of everything is by law given to the old men, who "naturally lose no opportunity of impressing their injunctions on the young," praising those who conform, and condemning those who resist. "Authority," he adds, "seems to me the origin, and utility, though not in the manner suggested by Mr. Spencer, the criterion of virtue."\* Is there not in this brief statement very surprising confusion? Authority must have right and wrong for its guidance. It is administrative of what is just. It does not originate duties and virtues, it is ruled by them, and when authority is absolute, we have only two conditions, despotism and subjection or slavery. The ideas of right and wrong must have an acknowledged value as recognized principles, before "*authority*" could enforce their application. If we accept Sir John Lubbock's historical explanation, then right and wrong, like Spencer's experiences of util-

\* "Origin of Civilization," pp. 272, 273.

ity, must ultimately disappear in the shifting claims of sheer selfishness.

No sooner have we carefully reviewed the principles and inferences which Darwin, Herbert Spencer, and Sir John Lubbock respectively advocate as the basis and explanation of the origin and progress of civilization, than we are convinced of their helplessness, as either intellectual or moral guides, when they pass from the legitimate and severer exercises of physical science and philosophy into a domain of human inquiry which cannot be safely traversed without believing, as a first truth, that man has had given to him, as part of his complex nature, a separate spiritual existence, which, though working here in and through a bodily organization, has yet laws and conditions which are not dependent on the body, but are related to the "unseen and eternal." Recognizing this complex nature, the bodily, the intellectual, and the moral, and classifying on a distinct basis their separate phenomena and laws, we find that the conclusions which are logically reached are more in harmony with the teachings of Scripture than with the theories of skepticism.

While this necessarily brief exposition of their conflicting opinions as to the very foundation of civilization might be largely extended, enough has been submitted to show how valueless are the speculations of even powerful thinkers, when they attempt to compress within the restricted area of natural science, the higher and wider laws or conditions of mental science and moral philosophy.

## V. CIVILIZATION IN RELATION TO RELIGION.

Still more signal has been their failure, in the effort to trace the origin and development of religion from the no-ideas of "semi-human" beings, to the doctrines and the ennobling practical lessons of Christianity. It is by no means enough that they look over the records of travellers, and collect the many hasty and incongruous beliefs and practices which they have detailed, so that by an arbitrary collocation they may make plausible their system of evolution. Nor is it enough that they assert that certain advanced religious ideas and practices *may* have come from others which preceded them. They are bound to demonstrate their necessarily continuous progress, until they have culminated in the present civilization of Christendom. Sir John Lubbock and Mr. W. B. Tylor have attempted to accomplish, in reference to the growth of religion, what Mr. Darwin has failed to achieve in the psychological history of our race. Beginning with tribes in which he says no trace of religion has existed, Sir John afterwards finds a rudimentary religion, and attempts to trace, historically, the ideas and customs expressed by Marriage, Law, and Religion.

Between these two states of no-religion and rudimentary religion, there is another unbridged gulf. How can religion be evolved from no-religion? Throughout his work on the "Origin of Civilization," and that, also, of Mr. W. B. Tylor on the "Early History of Mankind," apart from the amazing industry which they exhibit, and regarded simply as philosophical discussions, there pre-

vails a surprising incoherency. Their facts do not sustain their inferences. In tracing the highest phases of religious thought back to the first dreams as their origin, Sir John Lubbock nullifies his own assertion as to tribes existing without any religion. If dreams are the origin of our ideas of the spirit-world, and, ultimately, not only of the Deity, but of our duties to him and our fellow-men, is it possible that there could be a tribe without rudimentary religion, since they all dream? Dogs dream. Darwin's "semi-human" beings, and Sir John Lubbock's "creatures not worthy to be called men," must have also had their dreams. Why not their religion? If we accept this hypothesis, we cannot admit the existence of tribes without any religious notions or any sense of duty. Mr. Tylor does not commit himself to the conclusion that any tribe ever existed without religion, nor does he think it "advisable to start from this ground in an investigation of religious development." As a matter of fact, such tribes have not been found any more than tribes without language, or living without fire. The "assertion that rude non-religious tribes have been known in actual existence, though in theory possible, and perhaps in fact true, does not at present rest on sufficient proof, which, for an exceptional state of things, we are entitled to demand."\* This statement, though very cautiously expressed, is sufficiently confirmatory of the objection which we have urged to the whole theory as being defective in essential links. Mr. Tylor, however, agrees with Sir John Lubbock in the conclusion, that all the

\* "Primitive Culture," vol. I, p. 378.

various religious beliefs in the world, with their complicated and conflicting systems of worship, are traceable to dreams and shadows ; and under the head "Animism," he devotes a large portion of his elaborate work, "Primitive Culture," to the elucidation of this view. It were a waste of time to enter on an exhaustive discussion of the facts which Mr. Tylor and Sir John Lubbock have piled together as the foundation on which, they say, the religious fabrics of the world are resting. In their very nature, they are inadequate to account for the clear, definite, and ennobling ideas which appear in the Christian world, ideas which cannot possibly be the product of evolution from such an origin, because they are, in some striking instances, not only repressive but repugnant to man's lower nature, in which their history is assumed to have begun.

With considerable ingenuity it has been attempted, on this theory, to trace the ideas and practices through which Marriage, Law, Spirit, Immortality, and God, have come to be acknowledged ; but the difficulties of the method have forced Sir John Lubbock not only to begin with races without a moral sense, and without morality, but afterwards, when morality has been established, to dissociate it from religion. He rejects the reasoning of Mr. Wallace as to the morality of certain tribes, inquiring, "Does it prove even that they have any moral sense at all?" and adding, "Surely not."\* He quotes Mr. Dove regarding the Tasmanians, to show that they are entirely without any moral views and impressions ; Mr. Burton,

\* "Origin of Civilization," p. 263.

to show that in Eastern Africa "conscience does not exist;"\* and other travellers, to prove the same non-morality. But giving equal TIME to the tribes and nations of the world, and the same working force in dreams and shadows to produce morality and religion, why is it, or how is it, that there should be any tribe now without either or both? On our theory, such a condition is easily accounted for; on his, it is utterly inexplicable. It is perfectly clear that from this origin no fixed principles can be educed to guide the world. Without religion, without belief in a higher Being, there can be no felt obligation, and, consequently, no permanent code of morals. Each individual and each tribe will assert, wherever it is possible without impunity, its own supremacy. The facts which Sir John Lubbock quotes, in his chapter on CHARACTER AND MORALS, confute his own inferences; and when we revert to his chapter on RELIGION, which somewhat awkwardly and illogically he has introduced before that on MORALS, we find it impossible to connect the two by that process of development which it is his aim to vindicate. He frankly concedes, in the following statement, what proves ultimately an unbridged gulf between "rudimentary religion" and religion as it is in Christendom: "It must, however, be admitted that religion, as understood by the lower savage races, differs essentially from ours; nay, it is not only different, but even opposite. Thus, their deities are evil, not good; they may be forced into compliance with the wishes of man; they require bloody, and rejoice in human sacrifici-

\* "Origin of Civilization," p. 264.

ces ; they are mortal, not immortal ; a part of, not the author of nature, they are to be approached by dances rather than by prayers, and often approve what we call vice, rather than what we esteem as virtue. . . . We regard the Deity as good ; they (the lower races) look upon him as evil : we submit ourselves to Him ; they endeavor to obtain control over Him ; we feel the necessity of accounting for the blessings by which we are surrounded ; they think the blessings come out of themselves, and attribute all evil to the interference of malignant beings.”\*

Mark the bearing of these concessions. The religion of the lower savages not only differs “*essentially*” from ours, but is its “*opposite*.” How then can this essentially different and opposite religion be evolved or developed from that which is beneath it, or lower ? Such a result is inconceivable on the principle which runs through his whole exposition of the “Origin of Civilization.” Further, how is it that we regard as good the Deity, whom they all regard as evil ? What has induced this great change ? How is it, also, that while there are gods of all qualities, there is no God of *holiness* except where the Bible is acknowledged ? How is it that in all the systems of religion in the world, apart from the Bible, there is endless confusion, and we can find no such grand and comprehensive description as that with which from childhood we have been familiar—“God is a spirit, infinite, eternal, and unchangeable in his being, wisdom, power, holiness, justice, goodness, and truth” ? †

\* “Origin of Civilization,” p. 116. † Shorter Catechism, Question 4

It is difficult to give anything like coherence to Sir John Lubbock's reasoning on this subject, for, although he speaks of the "religious beliefs of the higher races,"\* he gives to the Bible no higher place than to other books. When in reference to sacrifices, for example, he quotes David's saying, "I will take no bullock out of thy house, nor he-goats out of thy folds," Psa. 50:9, he accepts the statement only as in advance of its time, and he accounts for sacrifices, even in Solomon's time, not only as being necessary "in the then condition of the Jews," but as being part of the "natural process of development"† through which religion must pass. The animal sacrifices which he finds on a great scale among the Jews, he can understand only on the hypothesis that they were once usual; and he assumes, by a forced interpretation of the 27th chapter of Leviticus, that "human sacrifices were at one time habitual among the Jews."‡ He entirely misses the meaning of the Jewish sacrifices, and fails to connect them with the great fact in the New Testament history which led Paul to exclaim, "God forbid that I should glory, save in the cross of our Lord Jesus Christ." Gal. 6: 14. We have referred to these somewhat minute yet essential parts of his exposition, because they become incoherent, and in part unintelligible, when near its close he says: "The higher faiths, however, merely superimposed themselves on, and did not eradicate the lower superstitions."§ Whence are these higher faiths? Are they revealed or evolved? And how came they to *super-*

\* "Origin of Civilization," p. 236. † Ibid., p. 237.

‡ Ibid., p. 243. § Ibid., p. 255.

*impose themselves?* The difficulty is not lessened when, in the next paragraph he says: "Nay, in the absence of education, not even Christianity prevents mankind from falling into these errors."\* He does himself the greatest possible injustice if he recognizes Christianity as a revealed system, "superimposing" a higher faith, revolutionizing the world, and ennobling it with the fullest possible civilization, and yet does not set it down as the basis of all that is true, permanent, and heavenly in the moral and religious evolution of the human race.

We most cordially concur in Sir John Lubbock's statement that science is rendering "immense service" to the cause of religion and humanity, and that true science and true religion cannot be really opposed to one another; but we repudiate the idea that "true religion, without science, is impossible." St. Peter and others, in apostolic times, knew little of physical science, for it is to that section of thought Sir John Lubbock refers; but he will not deny that they exemplified true religion, and that "to the poor" the gospel was preached.

We think he has also signally failed in his estimate of the power of religion, and of the tendencies of the human heart and intellect, when he declares that he holds the non-existence of religion among savage races to be their original condition, because it is difficult to believe that a people which had once possessed a religion should ever lose it."† He knows little of the condition of our sunken population in large towns, who can write thus regarding

\* "Origin of Civilization," p. 256. † *Ibid.*, p. 348; see also "British Association Reports," p. 121. 1867. Dundee.

the preservation of religious beliefs among them. Men may not be able to forget the religion which they were once taught, or to root out every vestige of the religious belief which they have deliberately abandoned, and to that extent Sir John Lubbock's declaration may be true, that "Man can no more voluntarily abandon or change the articles of his religious creed than he can make one hair black or white, or add another cubit to his stature;"\* but beyond that it is not true, and gives no support to his theory. Our experience of the helplessness and ignorance of those who have been allowed to grow up in our great cities, unheeded by man and reckless of the future, warrants our unqualified rejection of this too generous statement. In an examination of factory workers in which, when attending the Glasgow University, we took part with others, at the request of one of the most enterprising and philanthropic merchants in the city, the ignorance of the simplest Bible truths which prevailed, was conclusive proof of the almost incredible rapidity with which a people might sink through even civilized society, into that state spoken of by the apostles as "having no hope, and without God in the world."† They had not

\* "Origin of Civilization," p. 348.

† Some answered that "God was the first man;" some that "Jesus was the first man;" some that "Eve was the first man;" some "never heard of heaven or hell;" and one answered that she "knew naething about the things;" some were ignorant of the resurrection, and refused to believe it; some said the soul would die with the body; and one, on being asked simple questions about Moses, Joseph, Daniel, and others, said she "did not know any of these gentlemen." The examination embraced 698 workers, male and female, between 13 and 21 years of age, in four factories, viz., two spinning, one steam-loom, and one woollen, and was conducted, du

abandoned their religious belief, for they had never been taught any, and their "social instincts" did not much assist them. Many of them had no conception whatever of a Deity, of future reward or punishment, of heaven or hell; and they were as ignorant of the facts of Scripture as if they had been brought up in Timbuctoo or Unyanyembe! If such thorough ignorance of all religion and its duties can be found in a city representing, in its West-End, the luxury, the culture, and the refinement of modern civilization, what degradation and sunkness might we not expect in the territories of neglected savage tribes? This sunken condition is by no means exceptional. The varied experiences of town missionaries have furnished similar facts, and confirmed the conclusion that morally, intellectually, and physically, man does often sink from a higher to a lower level. Men lose religious knowledge, they cease to believe religious truth, and they fall away from religious duty. This has been admirably stated by the Duke of Argyll;\* and there is perhaps no part of Sir John Lubbock's reply which is weaker than his treatment of this objection.† Although religions, as he asserts, may not be put on nor cast off like garments, according to their utility, beauty, or power of comforting, they may be gradually reduced or worn out, or become

ring six evenings, by twelve schoolmasters, the rector of the Normal College, and six students of the university, assisted by the overseers of each public work. The examination was thorough, and revealed a state of almost utter heathenism, which confounded us. The facts were published at the time, and were not called in question. See "Stow's Training System," p. 128. Tenth edition.

\* "Primeval Man," p. 156. † "Origin of Civilization," p. 348.

so patched that the original texture may be scarcely recognizable, or they may be scornfully torn off and flung aside by infidels, whose families are allowed to grow up in neglect of every religious observance. A very generous weakness is betrayed by Sir John Lubbock, when he gives the following reason for the permanence of religious influences: "Religion appeals so strongly to the hopes and fears of men; it takes so deep a hold on most minds; it is so good a consolation in times of sorrow and sickness, that I can hardly believe any nation would ever abandon it altogether."\* Nations may not deliberately abandon their religion; yet emigrants to other lands may gradually or rapidly lose it, and found communities or tribes in which religious beliefs are but dimly perceptible. In large towns like Glasgow, Liverpool, and London, there may linger among the sunken masses vague notions of a power in religion, so long as the Sabbath bells and a day of rest proclaim its existence; but in such notions there can be no support, nor consolation, nor civilizing influence.

On his theory, how can religion be of the least practical value? It is of the earth, earthy; it is a religion without a Bible and without a Saviour, originated in those irrational creatures which are beneath man, and developed by a process which no one can comprehend. It is at best a struggle, an upheaval; it cannot uplift or attract us, it has no *heavenliness*, and of what avail can it possibly be to the spirit as it is leaving the "earthly house of this tabernacle" for "the unseen and eternal"?

\* "British Association Reports," p. 121. 1867.

By these theorists, we are left ignorant of the future. They can know nothing of it, their philosophy fails them, they ignore in their history of civilization the ONE BOOK which can explain aright, because it originates, its highest forms, which is the true interpreter of history, and the sanctifying Power which is to uplift a sunken world.

What are the highest aspirations of these guides? What practical form does their religion assume? And, of what moral value can it be to the human race? Let themselves speak. Darwin has said, after referring to the strange superstitions and customs which have prevailed, as being "terrible to think of," "yet it is well occasionally to reflect on these superstitions, for they show us what an infinite debt of gratitude we owe"—to whom? to man? to God, the bountiful giver of every good and perfect gift? no!—"to the improvement of our reason, to science, and our accumulated knowledge."\* Think of that, "*gratitude to science*" and to our own "*accumulated knowledge*"!! As well is it to speak of gratitude to stocks and stones, or other senseless things.

Nor does Herbert Spencer guide us to a clearer atmosphere and a firmer resting-place, when he reasons in favor of a progress which shall cease altogether when an "equilibrium" has been established between man and his surrounding conditions. When the internal forces which we know as feelings are perfectly balanced by the external forces which they encounter, then there will be reached something like the repose of heaven.† Is such

\* "Descent of Man," vol. 1, pp. 68, 69.

† Herbert Spencer's words are, "The adaptation of man's nature to

a result possible? Does philosophy warrant the supposition that *discipline* shall cease, and man's intellectual and moral nature shall be balanced between opposing forces? The hypothesis is unscientific. It violates the laws which history and our constitution have proved to be permanent and ineradicable, in our yearning after a higher and brighter existence than this world can know. We may at once set aside, as untrue to nature, the conclusion that there shall ever be a condition on earth in which human desires will be satisfied through any conceivable combination of external forces with internal feelings, and that the hitherto unsatisfied pantings of the soul will cease in the enjoyment of the dull repose of the mere brute. He has studied the struggles of the human mind to little purpose, indeed, who believes that aught earthly can satisfy its deepest longings. To accept Herbert Spencer's theory of the highest conceivable form of civilization, is to assume that man's unquenchable thirst shall be satisfied here, that desire shall be lost in the stupor of luxury, and that hope itself shall perish in earth-born perfection.

Beautiful as the theory is in the sphere of the imagination, facts do not sustain it; and our reason scorns it, as violating some of those laws by which the human

the conditions of his existence, cannot cease until the internal forces, which we know as feelings, are in equilibrium with the external forces they encounter. And the establishment of this equilibrium is the arrival at a state of human nature and a social organization such that the individual has no desires but those which may be satisfied without exceeding his proper sphere of action, while society maintains no restraints but those which the individual voluntarily respects." *First Principles*, p. 512.

constitution is being ever disciplined in relation to the unseen and eternal. The speculations in which many indulge, varied as they are, and, in some instances, really invigorating as mental gymnastics, are yet unprofitable, and we must add, illogical. Divested of those ideas which the theorists have unconsciously drawn from that Christianity which like the atmosphere, is diffused over society in Britain, their speculations could not bear the touch of the gentlest test. They have no right to use its principles, for the only ideas which they can employ, with logical fairness, are those which issue from their own departments in the natural history of the lower animals and man. Their ideas of "sin" and "sorrow and repentance," of a "moral sense," and of a universal, beneficent, and Holy Creator and Ruler,\* are obviously borrowed from the Bible, and the Christian system which it unfolds; and yet they professedly exclude both. Let them carry out their principles, and the legislation of Britain will pass into the confusion which "strikes" among the employed and the combinations of the employers are already beginning to create. What principles and what precepts can legislators in the Darwin, or Herbert Spencer, or Sir John Lubbock school, bring to bear on contending masses of man, which can be of the least practical value, except those which are drawn

\* See Sir John Lubbock's "Prehistoric Times," p. 387, second edition; and also Darwin's "Descent of Man," vol 11, p. 395, where it is said, "The idea of a universal and beneficent Creator of the Universe does not seem to arise in the mind of man until he has been elevated by long-continued culture." Culture has never given that idea apart from the Bible or tradition.

from Scripture, and which inculcate with all the majesty of divine authority the obligations of self-denial and mutual love? Selfishness and utilitarianism in political economy will be inevitable results on the theory of natural selection, and the "survival of the fittest" will be the prevalence of might only. Their teaching bears us back to the too-long-honored plan,

"That they should take [select] who have the power,  
And they should keep who can."

Natural selection can acknowledge no law, and barbarism can create none. "Where there is no law, there is no transgression." This nation, if civilization is to prevail in its highest and most enduring form, must revert with more than its old earnestness to the principles which the Word of God inculcates; for through these only is that righteousness made powerful by which nations are permanently exalted.

We cannot leave this subject without protesting against the notion which some appear to cherish, when they charge us, sometimes by hints, and sometimes openly, with being unfavorable to science, and fearing it. We are not. We love it. The works of God in creation are a source of inexhaustible delight to every student. Next to the guidance of the Word of God, the lessons of his works are the most impressive, animating and enriching. That man's heart is not right, who is not elevated by the beauties, and even by the very mysteries which nature is ever spreading before him; but while conceding all this, we cannot accept as true the declaration that science can of itself make us "innocent" or more virtu-

ous, and that "religion is impossible without it." The highest possible civilization will combine them both. When they shine upon one another, pouring forth their treasures of light for man's enlargement and comfort, science, philosophy, theology, and religion, may be found mutually helpful. We resist their separation. We keep side by side the Works and the Word of God. The longer the humble student looks into the Word of God, the more imposing does the grandeur of its revelation become, and the more satisfying to the soul is its deepening confidence in its God. But there is this peculiarity in the marvellous volume, that while it impresses the philosopher, it interests the child. Within this record, while there are treasured up for us wondrous facts, tenderest sympathies and purest thoughts, profoundest philosophy, and mysterious movements of divine government and of sovereign grace, into which angels love to look, there are also teachings so simple and so direct that a child's lip can lisp them, and a child's life embody them.

There may be true religion in the life of the young without much of the profounder theology on which many expend their strength. So, also, "pure and undefiled religion" may exist without attainments in natural science. Men ignorant of the speculations of the philosopher, and unable to comprehend the calculus of the mathematician, or to apply any of the tests of the scientist, may, notwithstanding, enjoy vigorous health, be nerved by the bracing breeze, and revel in the beauty of a summer's landscape or in the wild turmoil of a winter's storm ; so, also, those who are similarly ignorant may have health

of soul, and delight in the beauties of holiness, while they realize, in the Lord Jesus Christ, "the chief among ten thousand, the altogether lovely." Millions of our working population, unacquainted with recent discoveries of science and applications in art, and undisturbed by conflicting Biblical criticisms or historic doubts, or the problems of speculative theology, may, notwithstanding, have that faith, and that experimental knowledge of the few simple doctrines which are related to sin, repentance, pardon, and peace, and may be marked by that refinement of feeling, of language, and of conduct, which Christianity alone imparts, and which of itself constitutes a civilization incomparably nobler than that which science alone can ever evolve.

The bold assumptions by modern theorists of progress, are to be strenuously resisted. They claim it as their distinctive characteristic; but we do not yield it; while partially theirs, it is preëminently ours. Progress with us has not only a more comprehensive range of feeling and of thought, but a grander close, while they are left behind in comparative gloom. That the affections be purified and exalted, the understanding enlightened, the will made submissive, and the imagination regulated, is the law of the Christian's life. His path, like that of the just, shall shine "more and more unto the perfect day." Sanctification is evolution in its highest form. Following on to know the Lord is the Christian's privilege, and to bear in love his brother's burden, is to "fulfil the law of Christ." Thus man may reach the summit of civilization on earth, but progress hereafter shall be

continuous, development of character in eternity may be anticipated. Capacity will be enlarged. "It doth not yet appear what we shall be ; but we know that when He shall appear we shall be like Him." The light of Scripture, blending with that of Science, not only to enlarge our conceptions, but to cheer and guide us on our earthly pilgrimage, shines beyond the gloom of death into the distant future, and reveals intuitional attainment. By its light we discover unfailing advancement. Imposed limit there is none. Growth in knowledge will never cease. It may be ours, in that new and heavenly sphere, to rise from stage to stage in perfect bliss, sounding depth and solving problem, seeing as we are seen, and reaching heights of thought, from which, when we look back on all that we deemed grandest here, we shall regard them but as child-experiences in the comprehensiveness and magnificence of those attainments which eternity shall evolve and sustain.

## CHAPTER XI.

THE ANTIQUITY OF MAN—THE BIBLE CHRONOLOGY—THE  
CHRONOLOGY OF GEOLOGISTS.

And while the student of nature goes on honestly, patiently, diffidently, observing and storing up his observations, and carrying his reasonings unflinchingly to their legitimate conclusions, convinced that it would be treason to the majesty at once of science and of religion, if he sought to help either by swerving ever so little from the straight rule of truth; yet he does all this under a reverent sense of responsibility, fostered and deepened by his religious convictions.—THE ARCHBISHOP OF CANTERBURY.

WE have reached another and higher stage, but only to be beset by new difficulties. Such questions are pressed upon us as, When was Man created? Through what periods has his history passed? Does the Bible chronology harmonize with those long ages through which, according to some distinguished geologists and archæologists, Man has existed?

Before we enter on the discussion of the facts and inferences which they adduce, it is indispensable that we determine what the Bible teaches on this subject, and what, consequently, we are really bound to defend.

I. THE BIBLE CHRONOLOGY, AND ITS TEACHING AS TO THE  
ANTIQUITY OF MAN.

Much confusion and much unnecessary alarm have arisen from a disregard, on the part of Christian apologists, of what the Bible does teach concerning the Anti-

quity of Man; and one of the benefits which extending science has conferred, has been to compel interpreters to look more closely to the Scriptures, and to remove every incrustation with which their predecessors may have encumbered the text.

We have no definite Bible chronology. No texts give the date of either the Creation of Man or of the Deluge; accordingly the period between them is variously estimated. In the Hebrew chronology, for example, it is 1,656 years; in the Samaritan, 1,307; in the Septuagint, 2,262; and in Josephus, 2,256. The common conclusion that 6,000 years make up man's history, cannot be positively established. While the chronology deduced from the Hebrew gives 4,000 years between Adam and Jesus Christ, that of the Septuagint extends man's history by 1,500 years, making the period of his existence 5,532 years; and some increase this difference by 120 years more. We have to deal with the question, it is true, only in relation to the history of man since the Deluge, but the same elasticity is apparent in the chronology after the flood as before it. As part of the Scripture genealogies is definite and part indefinite, we have no means of determining satisfactorily what is the length of man's history; or, in other words, the antiquity of the race. The consequence is, that, apart altogether from recent geological disquisitions, different dates and periods have been stated and resolutely defended. Ussher, Hales, Petavius, Jackson, Poole, and Bunsen, for example, have published widely varying results. By a close examination of the separate genealogical tables, we are taught

other than purely historical truths, and we may well pause before concluding that they are meant merely as a basis for any chronological system whatever.\* While many systems have been advocated in avowed and irconcilable opposition to the Bible, it is evident that the differences, even among those who are devout believers in its reliableness, are such that no sane man can dogmatize as to its chronology. "The extreme uncertainty," says Dr. Hodge, "attending all attempts to determine the chronology of the Bible, is sufficiently evinced by the fact that one hundred and eighty different calculations have been made by Jewish and Christian authors, of the length of the period between Adam and Christ. The longest of them make it six thousand, nine hundred and eighty-four, and the shortest, three thousand, four hundred and eighty-three years. Under these circumstances, it is very clear that the friends of the Bible have no occasion for uneasiness. If the facts of science or of history should ultimately make it necessary to admit that eight or ten thousand years have elapsed since the creation of man, there is nothing in the Bible in the way of such concession. The Scriptures do not teach us how long men have existed on the earth. Their tables of genealogy were intended to prove that Christ was the Son of David and of the Seed of Abraham, and not how many years have elapsed between the creation and the advent."† Although eight or ten thousand years are

\* See an instructive article, *Does Scripture settle the Antiquity of Man?* in the "British and Foreign Evangelical Review," by Rev. Malcolm White, M. A. January, 1872.

† "Systematic Theology," vol. 2, p. 41. By Charles Hodge, D. D.

insignificant, compared with the long periods over which geologists carry the history of man, they may prove ultimately more than sufficient to cover the facts alike of science and of history. But while it is acknowledged that we have no rigid chronological system in the Bible on which to fall back, that admission is widely different from accepting the conclusions of the geologist, and attempting to force the Bible into harmony with them.

Let us now examine

## II. THE CHRONOLOGY OF THE GEOLOGISTS.

Of all the sciences, geology is, in many respects, the most indefinite. The data are uncertain, and conclusions as to TIME are generally so vague as to be almost useless. The problems of the geologist, like those of the mechanic, depend for their solution on the elements of *Force* and *Time*. Let force be increased, and time may be lessened; but let *time* be prolonged, and a correspondingly lessened force will produce the same result as a greater force in shorter time. The geologist, therefore, in looking only to results, may make the time long or short which was necessary to produce certain effects, according as he makes the conditions of long time or of great force predominate.

Looking into the immeasurable *Past*, he endeavors to break it into indefinite sections by such terms as "eras," "epochs," and "cycles;" and he has introduced a vague chronology by speaking of TIME as pre-geological, geological, and historical. That remote period which starts on its course backward from the date of the first fossil, is

*pre-geological*; the period extending from the first fossil to the first man, is *geological*; and that which follows is *historical*, as more or less strictly related to man.\* Dr. Page regards the first as an abyss which the human intellect, in even its boldest moods, shrinks from exploring. But there are workers in Natural Philosophy busy with problems which lie beyond the sphere of the geologist, and by whose labors the whole question of Time may be soon reduced within a more manageable compass than at present. This remark applies also to the *historical* period, which, in its divisions and in its extent, is still wrapped in obscurity. We are, as yet, only on the verge of this great field of inquiry, and while theories are admissible, perhaps in the meantime indispensable, dogmatism can be the sign only of weakness or ignorance.

Our investigation is for the present limited to the geological period which has been designated the historical, or rather to that which is connected with *Prehistoric Archæology*, in as far as it mingles its facts with those of geology. The two sciences are interwoven. As in the one, a stone hatchet, a flint arrow-head, a fragment of pottery, will shed historical light on the purpose for which it was made, and on the degree of intelligence then existing; so, in the other science, a leaf, a shell, or a fragment of bone will reveal what the climate was, as well as the other conditions in which man then lived; and both together will contribute to reveal the character of man and the circumstances of his home.

It is with this period alone we have to do at present;

\* "The Past and Present Life of the Globe," by Dr. Page, p. 219.

but although it is the most recent, and although its facts are within common reach, much diversity of opinion and inference prevails. Although agreed in claiming *immensity* of time, geologists are by no means at one regarding any definite period for man's history. Wallace is tolerably certain that man has run a course of a thousand centuries, but he does not see any evidence against his having existed "ten thousand centuries;"\* and he assumes that there was a time "when he had the form, but hardly the nature, of man; when he neither possessed human speech, nor those sympathetic and moral feelings which, in a greater or less degree, everywhere now distinguish the race."† Similar views are held by Darwin, Sir Charles Lyell, and Professor Huxley. On this point their only difference consists in the duration of the history they assign to man. Professor Fühlroth of Elberfeld, in his work on the "Neanderthal Fossil Man," tells us that "it reaches back to a period of from two hundred thousand to three hundred thousand years;" and some enthusiastic anthropologists have put in the modest claim for man of nine million years. This amazing elasticity is utterly inconsistent with the principles of scientific investigation. The geological chronologists are evidently without such definite data as are indispensable even for judicious *conjecture*, and they are exposing their own weakness, as guides of scientific thought, by such haphazard inferences. Our hope is, that Natural Philosophy will soon correct the vagaries of Natural Science, through such application of principles as Sir W. Thomson has

\* "Natural Selection," p. 303.

† *Ibid.*, pp. 322, 323.

already indicated. It will most probably be found that the physical conditions of our globe were, in those distant periods, unsuitable for man ; or, failing this, it may be ascertained that, if so many hundred thousand years are demanded for man's history—confessedly the latest in the geological records—there cannot be obtained suitable and sufficiently extended periods for the life-histories of those creatures which preceded man in successive formations, until we are landed in that time during which, as Sir W. Thomson has demonstrated, no life could have possibly existed. When it is borne in mind that these far-separated chronological conclusions have been deduced from precisely the same facts, he must be credulous indeed who places any faith in them.

But, at the same time, as these conclusions carry the Antiquity of Man far beyond the Bible record, it becomes us to examine carefully the facts on which they rest. We have done so, and the history of the inferences based upon them by no means increases our confidence in the chronological guidance which has been offered to us. Allusion has been already made to the nearly perfect human skeletons which were found imbedded in what at first appeared to be old limestone, on the mainland of Guadaloupe ; and to the fact that, after a keen discussion, and a temporary triumph on the side of the opponents of the Bible, it was discovered that the limestone was a recent formation, and that the age of the skeletons could not be much more than two hundred years. A similar agitation was produced when the footprints of man were discovered on limestone, and described in the " American

Journal of Science," and a similar collapse followed when Dr. Dale Owen proved that they had been traced by an Indian tribe.

A mass of conglomerate rock was found in 1831 at the depth of ten feet below the bed of the river Don in Derbyshire; and had there been found in that mass, as there might have been, portions of any human skeleton, and nothing more, there would have gone forth to all parts of the civilized world the conclusion that additional proof had been obtained that man existed hundreds of thousands of years before the earliest possible date in Scripture chronology; but, very awkwardly for the advocates of a vast antiquity, the discovery of several silver coins of the reign of Edward the First, showed that the conglomerate rock was only about six hundred years old.

Not dissimilar has been the history of Mr. Leonard Horner's famous discovery in the Nile deposit. Having been intrusted in 1851, by the Royal Society of London, to make a series of borings in the sediment of the river Nile, Mr. Horner employed several engineers and sixty workmen, and did his appointed work very efficiently. Shafts and borings were made at intervals across the valley from east to west; and, in the course of the excavations, they brought to the surface jars, vases, pots, a small human figure in burnt clay, and several pieces of burnt brick, obtained at various depths, but sometimes as low as sixty feet. Minute calculations of time were instantly prosecuted. Assuming a certain thickness of mud deposit in a century, it was announced that the

pieces of burnt brick were twelve thousand years old. Another fragment was found at the depth of seventy-two feet, and having been connected with a somewhat different rate of calculation, led to the conclusion that it was thirty thousand years old. So on they went with facts and inferences, until it was ascertained, unfortunately for the theorists, that confounding witnesses were forthcoming. A piece of pottery, which must have been made, as they asserted, *before* the *historic* period, turned out to be of Roman manufacture; and in the deepest boring of all, at the foot of the statue of Rameses II., the discovery of the Grecian honeysuckle, marked on some of those mysterious fragments which they imagined to be prehistoric, proved that it could not have been older than the age of Alexander the Great. When Sir R. Stephenson was engineering in the neighborhood of Damietta, he found, at a greater depth than Mr. Horner reached, a brick bearing on it the stamp of Mohammed Ali.\* The attempt to neutralize the damaging effects of these facts, by showing that the Egyptians of old *did* burn bricks, has been fruitless; and men of his own school have become ashamed of Sir Charles Lyell's somewhat careful exposition of Mr. Horner's "preposterous" calculations, and regret that he "should have thought it worth while to notice such absurdities." It is, however, but just to Sir Charles to state that, while he is careful in giving Mr. Horner's facts, and seems anxious to defend his inferences, he admits that Egyptologists do not consider his experiments satisfactory for testing the age of a given

\* "London Quarterly Review," p. 240, No. 51. 1866.

thickness of the Nile sediment."\* The changes in the river Nile, and the fuller knowledge of the action and the varying rate of deposits by the Ganges and other great rivers, have turned the attention of the scientific world altogether aside from Mr. Horner's discoveries, as destitute of the least title to respect or acknowledgment. These and similar blunders by geologists of the highest standing should render us very chary in accepting any of those generalizations which do not rest on a wide induction of facts.

With the precautions which the history of this discussion has already suggested, we should not be deemed unnecessarily suspicious if we prefer waiting for fuller information before accepting facts and inferences, even when both appear to be worthy of an undisputed place in our investigations. Although we may be unable to explain some facts which seem to contradict or neutralize others, it is our duty to reject none, but to retain them, in the hope that their mutual relations may, in due time, be clearly established. As it is, of course, inadmissible, in a discussion of this kind, to ignore a single well-authenticated fact, because it may constitute the one link needed to give completeness to the evidence, it is necessary to sift, one by one, the whole series on which conclusions may rest regarding the Antiquity of Man.

For the sake of distinctness, it may be better to group the evidence for man's antiquity under the three following divisions :

\* "Geological Evidences for the Antiquity of Man," by Sir Charles Lyell, p. 38.

(1.) *The discovery of human remains in a fossil state, in strata, or deposits, and caves.*

(2.) *The discovery of flints and stone implements in connection with remains of extinct animals. And,*

(3.) *The existence of villages built on piles, in Switzerland and elsewhere.*

I.—I. "The fossil man of Denise," found in a volcanic breccia, near the town of De Puy-en-Velay, in Central France, attracted, as in similar instances, the earnest attention of geologists; but great doubt exists as to the genuineness of the skeleton. Sir Charles Lyell half admits the likelihood that imposition may have been practised on the scientific observers in that district, and does not deny the probability that certain slabs of tuff which contained human remains were tampered with. "Whether some of these were spurious or not," he says, "is a question more difficult to decide. One of them, now in the possession of M. Pichot-Dumazel, an advocate of Le Puy, is suspected of having had some plaster of Paris introduced into it to bind the bones more firmly together in the loose volcanic tuff."\* Sir Charles went in 1859 to Le Puy, to inquire into the authenticity of the bones and into their geological age; and he employed a laborer to make some fresh excavations, "in the hope of verifying the true position of the fossils; but all of this *without success.*" He failed even to find *in situ* any exact counterpart of the stone of the Le Puy Museum. But apart from this side of the question, M. Felix Robert has decided that the tuff is "a product of the latest erup-

\* "Antiquity of Man," p. 196.

tion of the volcano;”\* and M. Pichot is “satisfied that the fossil bones belonged to the period of the last volcanic eruptions of Velay.”† .

2. The fossil human bone of Natchez, on the Mississippi, has been adduced as proving an antiquity of at least a hundred thousand years; but scarcely can any evidence be more precarious. Sir Charles Lyell himself does not insist on the facts as in any degree constituting reliable proof, but has suggested, as a possible explanation of the association of the human bone with the remains of extinct animals, that the former may possibly have been derived from the vegetable soil at the top of the cliff; whereas the latter may have been dislodged from a lower position, and both may have fallen into the same heap at the bottom of the ravine. The black color of the human bone may have been acquired by its having lain for centuries in the dark superficial soil common in these regions, a supposition fully borne out by the fact that many human bones in old Indian graves, in the same district, have been stained of as black a dye. Sir Charles in part apologizes for introducing this theory, and adds, “but so long as we have only one isolated case, and are without the testimony of a geologist who was present to behold the bone when still engaged in the matrix, and to extract it with his own hands, it is allowable to suspend our judgment as to the high antiquity of the fossil.”‡

We should rather say that it is not “allowable” to introduce such a case as in any shape calculated to shed light on this subject. It proves nothing, it confirms nothing.

\* “Antiquity of Man,” p. 167. † *Ibid.*, p. 195. ‡ *Ibid.*, pp. 202, 203.

3. A human skeleton, found at a considerable depth near New Orleans, has been employed with a greater air of triumph than is usual, even with the eager advocates of a high antiquity for man. Sir Charles attaches considerable importance to this discovery, in connection with his estimate of the time during which the delta of the Mississippi has been formed. The area is 30,000 square miles; the sedimentary matter has reached a depth of several hundred feet; and he approximates a minimum of time for this deposit by ascertaining, experimentally, the annual discharge of water by the river, and the mean annual amount of solid matter in its waters. "The lowest estimate of the time required would lead us to assign a high antiquity, amounting to many tens of thousands of years (probably more than 100,000) to the existing delta." In one part of this delta, when carrying a large excavation through a succession of beds made up chiefly of vegetable matter, the workmen passed "four buried forests superimposed one upon the other;" and at the depth of sixteen feet, they "found some charcoal and a human skeleton." By making certain assumptions as to the age of the successive forests, Dr. Dowler has assigned to the skeleton an antiquity of 50,000 years.

It will be observed that the four superimposed forests are comprised within *sixteen feet*—in itself a very improbable circumstance—and it may be added, that Sir Charles has evidently misgivings as to the calculations of Dr. Dowler, for he is careful to state that, as the discovery in question had not been made when he saw the excavation in progress at the Gas Works, in 1846, he

“cannot form an opinion as to the value of the chronological calculations which have led Dr. Dowler to ascribe to this skeleton an antiquity of 50,000 years.”\* The estimate of time by Dr. Dowler is one of those random guesses which are becoming almost intolerably frequent in professedly scientific investigations. Sir Charles himself has given an entirely different estimate of the required time, when, in his work, “Second Visit to the United States,” he quotes a writer in “Silliman’s Journal” regarding the growth of the cypress swamp: “Sections of such filled-up cypress basins, exposed by the changes in the position of the river, exhibit undisturbed, perfect and erect stumps, in a series of every elevation with respect to each other, extending from high-water mark down to at least twenty-five feet below, measuring out a time when not less than *ten fully-matured cypress growths* must have succeeded each other, the average of whose age could not have been less than four hundred years—thus making an aggregate of 4,000 years since the first cypress-tree vegetated in the basin. There are also instances where prostrate trunks of huge dimensions are found imbedded in the clay, immediately over which are erect stumps of trees, numbering no less than 800 concentric layers.”† Let it be borne in mind, that the skeleton for which Dr. Dowler claimed a history of 50,000 years, was discovered under four of these long “buried forests” or “cypress growths;” and that, as the writer in “Silliman’s Journal” assigns to each a mini-

\* “Antiquity of Man,” pp. 43, 44.

† “Silliman’s Journal,” Second Series, vol. 5, p. 17. January, 1848.

mum of four hundred years, the antiquity of the skeleton might not be more than *sixteen hundred* years, even when admitting that the fact has been accurately stated. But is it not as probable that the human body may have sunk through the soft mud in a section of the swamp, or that some surface-layer overlying a narrow opening, and yielding, may have allowed the skeleton to fall, within the last few hundred years, to the place in which it was found?

Sir Charles Lyell's estimate of the time during which the present delta of the Mississippi has been in existence, is altogether unsatisfactory; and his demand for more than 100,000 years has not been honored by those who have given special attention to this subject, and who have placed together such data as warrant the inference that no more than 4,000 years has been required for the formation of the delta from, at least, a hundred miles above New Orleans.\* The movements of rivers are so unsteady, and the rate of deposit so varied, that no claim as to man's antiquity can safely be made to depend on them. The experience of an "An Old Indigo Planter," as given in the "Athenæum," is significant: "Having lived many years on the banks of the Ganges," he says, "I have seen the stream encroach on a village, undermining the bank where it stood, and deposit, as a natural result, bricks, pottery, etc., in the bottom of the stream. On one occasion, I am certain that the depth of the stream where the bank was breaking, was *above forty feet*; yet, in three years, the current of the river drifted

\* "What is Truth?" by Rev. E. Burgess, pp. 298, 299.

so much, that a fresh deposit of soil took place over the *debris* of the village, and the earth was raised to a level with the old bank. Now, had our traveller obtained a bit of pottery from where it had lain *for only three years*, could he reasonably draw the inference that it had been made 13,000 years before?\*"

Dr. Page justly sneers at the attempt to chronologize through the facts by which some have elaborated conclusions, and tells us truly that we have yet no means of estimating aright geological time, and no power to give it expression in years and centuries. "Many ingenious calculations," he says, "have no doubt been made to approximate the dates of certain geological events; but these, it must be confessed, are more amusing than instructive. For example, so many lines of mud are annually laid down by the inundation of the Nile; fragments of pottery have been found at the depth of thirty feet—how many years since the pottery was first imbedded? Again, the ledges of Niagara are wasting at the rate of so many feet per century; how many years must the river have taken to cut its way back from Queenstown to the present falls? . . . For these and similar computations, it will be at once perceived that we want the necessary uniformity of factor; and until we can bring elements of calculation as exact as those of astronomy to bear on geological chronology, it will be better to regard our 'eras,' and 'epochs,' and 'cycles,' as so many terms indefinite in their duration, but sufficient for the magnitude of the operations embraced within their

\* See "The Truth of the Bible," by the Rev. B. W. Savile, p. 116.

limit."\* This admission, by such a geologist as Dr. Page, sufficiently vindicates the unwillingness of Bible students to accept, as correct, the inferences as to time which many are pressing upon them.

4. Much interest has from time to time been awakened by the discovery of human bones in caves; and attempts have been eagerly made to prove an extravagant antiquity for man from their position and their connection with other bones. Details have been published regarding the caves and fissures in England, in France, in Germany, in Hungary, in Canada, and elsewhere; but it is unnecessary to discuss them here separately, as there is remarkable similarity in the facts, as well as in the conclusions to which they have led. Those that are typical may sufficiently indicate the amount and kind of evidence which have been brought forward, and within what limits the discussion should be conducted.

At Hoxne, in Suffolk, in the beginning of this century, and later, not only in the caves of Gower, in Glamorganshire, but in various other localities in England, flint implements have been found so associated with the bones of extinct animals, that a long chronology would be required to reach their origin. In the Bize cavern, in the department of the Aude, human bones, with fragments of rude pottery, were mingled with land-shells of living species, and with the bones of extinct animals. Similar researches brought to light similar facts in the cavern of Pondres, near Nismes; but of these results no less an authority than M. Desnoyers has said: "The flint

\* "The Past and Present Life of the Globe, p. 220.

hatchets and arrow-heads, and the pointed bones and coarse pottery of many French and English caves, agree precisely in character with those found in the tumuli, and under the *dolmens* (rude altars of unhewn stone) of the primitive inhabitants of Gaul, Britain, and Germany. The human bones, therefore, in the caves, which are associated with such fabricated objects, must belong, not to antediluvian periods, but to a people in the same stage of civilization as those who constructed the tumuli and altars.”\* Sir Charles himself, after visiting several caves in Germany, and after weighing the arguments of both M. Desnoyers and Dr. Buckland, has come to the conclusion that the human bones mixed with those of extinct animals in cavern-mud, in different parts of Europe, “were probably not coeval. The caverns having been at one period the dens of wild beasts, and having served at other times as places of human habitation, worship, sepulture, concealment, or defence, one might easily conceive that the bones of man and those of animals, which were strewed over the floors of subterranean cavities, or which had fallen into tortuous rents connecting them with the surface, might, when swept away by floods, be mingled in one promiscuous heap in the same ossiferous mud or breccia.”†

Dr. Schmerling of Liege, with rare enthusiasm, examined more than forty caverns in his neighborhood, and made some very remarkable discoveries; yet they bear no direct evidence for a distant antiquity. Sir Charles

\* Quoted by Sir C. Lyell, in “Antiquity of Man,” p. 61.

† “Antiquity of Man,” p. 62.

adopts Dr. Schmerling's doctrine, "that most of the materials, organic or inorganic, now filling the caverns, have been washed into them through narrow, vertical, or oblique fissures, the upper extremities of which are choked up with soil and gravel."\*

What has proved of chief interest in Dr. Schmerling's investigations, is his finding in the Engis cave the remains of three human beings, and, among them, that skull which, in contrast with the *Neanderthal* skull, found in 1857, has excited so much keen debate.

The discussion, though not lying very properly within this part of our subject, may be noticed in passing.

The Engis skull was unequivocally so much older than the *Neanderthal*, judging from the position in which it was found, that, if there had been truth in the theories regarding the gradual development of the race, it should have been greatly less in its intellectual promise than the other; and yet, to the utter confusion of all theorists, it approached very near to the highest or Caucasian type; while of the other, Professor Huxley has admitted that "it is the most brutal of all known human skulls."†

Baffled by the contradiction which these two skulls gave, not only to the theory of "periods," but to the theory of physical and intellectual evolution, theorists take refuge in the declaration that the first traces of the primordial stock whence man has proceeded must be looked for in far older formations than those hitherto examined. The *Neanderthal* skull has come forth as a resolute wit-

\* "Antiquity of Man," p. 70.

† See Professor Huxley's Paper in "Antiquity of Man," pp. 80, 89.

ness against the doctrine of the progressive development of the cranium, and has given a decided check to hasty speculation. Sir Charles Lyell admits that these two skulls have created very great surprise; because the one, which by common consent is so old, is, notwithstanding, of the highest or Caucasian type; and the other, which is admitted to be without any claims to antiquity, has departed so far from the normal standard of humanity, that it will not piece into the development theory. But if this skull, which is low in size and conformation, had been found in the position of the other, and the other had chanced to occupy its place, the reasoning on behalf of this theory would have been intolerant, and doubters would have been unsparingly denounced as bigots.

Of other instances given, it may be sufficient to notice only one. At Aurignac, in the south of France, an opening into a cave was accidentally discovered in 1852, and in it were found seventeen human skeletons, which were speedily removed and buried in the neighboring cemetery. About eight years afterwards, M. Lartet examined the cave-remains; and although he failed to obtain any satisfactory information regarding the human skeletons, he assigned to them a remote antiquity, along with the implements and other bones which he obtained. Sir Charles Lyell, however, does not think that the facts which M. Lartet has stated add anything to the evidence in favor of man's antiquity.\*

The conclusion of Dr. Page, in reference to all these cave-finds, is confirmatory of the views which we have

\* "Antiquity of Man," p. 189.

expressed regarding the uncertainty or unreliableness of the reasoning by which it has been attempted to carry the antiquity of man into immeasurably distant periods. After taking into consideration the facts which have been stated in relation to the formation and age of peat-mosses, and to remains in cave-earth, he is not sure whether the older bones of the extinct animals "may not have been washed up, drifted, and reassorted from earlier deposits." That very possibility gives an insecure footing to those who would establish inferences on such data. The human skeletons which have been found in caverns he regards as being but of yesterday, when geologically estimated, and "dating back, at the utmost, but a few thousand years."\*

This conclusion is all the more satisfactory, as given by one of the most independent and cautious of geologists, and should encourage Bible students to cherish a deeper confidence in the principles which many are assailing.

II. The evidence of antiquity, dependent on the connection of FLINT ARROW-HEADS and other stone implements with the remains of extinct animals, and which is closely related to that of the human skeletons whose history we have been examining, has of late been very constantly pressed into service by avowed opponents of the Bible.

As intimately connected with the discovery of human skeletons in the position referred to, we may here notice the finding of human relics in Danish peat, in the valley of Somme, and in various caves.

\* "Geology, Advanced Text-Book," p. 382.

The Danish peat has a chronological history assigned to it, dependent, first, on its rate of growth; and second, on the trees which have successively lived in the course of its formation. In the lowest, and therefore oldest stratum of the peat, the Scotch fir, which is not now a native of the Danish islands, flourished and disappeared long ago. On a higher level, and in a subsequent period, the oak succeeded the Scotch fir; and "after flourishing for ages," was in turn displaced by the beech.\* Danish naturalists and antiquarians have connected with these trees, respectively, the stone, bronze, and iron periods. In the oldest formation, deep in the peat, and under the trunk of a pine-tree, Steenstrup found a flint instrument; and on these facts, calculations have been made by which some geologists have determined the antiquity of man.

"What may be the antiquity," says Sir Charles Lyell, "of the earliest human remains preserved in the Danish peat, cannot be estimated in centuries with any approach to accuracy. In the first place, in going back to the bronze age, we already find ourselves beyond the reach of history, or even of tradition. In the time of the Romans, the Danish isles were covered, as now, with magnificent beech forests. Nowhere in the world does this tree flourish more luxuriantly than in Denmark, and eighteen centuries seem to have done little or nothing towards modifying the character of the forest vegetation. Yet, in the antecedent bronze period, there were no beech-trees, or at most, but a few stragglers, the country being covered with oak. In the age of stone, again, the Scotch

\* "Antiquity of Man." by Sir Charles Lyell, pp. 9, 372.

fir prevailed, and already there were human inhabitants in those old pine forests. How many generations of each species of tree flourished in succession before the pine was supplanted by the oak, and the oak by the beech, can be but vaguely conjectured; but the minimum of time required for the formation of so much peat, must, according to the estimate of Steenstrup and other good authorities, have amounted to at least four thousand years: and there is nothing in the observed rate of growth of peat opposed to the conclusion that the number of centuries may not have been four times as great, even though the signs of man's existence have not yet been traced down to the lowest or amorphous stratum.\*

This calculation as to time must be very uncertain, because we as yet know little or nothing of the physical conditions under which the moss, during its different stages, was deepened. Mosses are formed with comparative rapidity in moist and cold districts, through fallen trees and the stagnation of water giving rise to marshiness. Although in a warm climate decayed timber would immediately be removed by insects or by putrefaction, in the cold temperature now prevailing in our latitude, many examples are recorded of marshes originating in this source; and Sir Charles Lyell admits that in Mar forest, in Aberdeenshire, large trunks of Scotch fir, which had fallen from age and decay, *were soon immured in peat.*† And he distinctly states that the overthrow of a forest by a storm, about the middle of the seventeenth century,

\* "Antiquity of Man," pp. 16, 17.

† Lyell's "Principles of Geology," p. 720.

gave rise to a peat-moss near Loch Broom, in Ross-shire, where, *in less than half a century* after the fall of the trees, the inhabitants dug peat.\* He admits, further, that such events were by no means uncommon in either Britain or the Continent; and the obvious and natural question suggested is, May not many storms have produced similar changes in the Scotch fir and oak forests in the Danish islands, so that the growth of moss may have been rapid as it was in Ross-shire, and in other localities in Scotland and Wales about which reliable information has been obtained?

Among other interesting instances of the growth of moss, may be mentioned those of Hatfield in Yorkshire, and Kincardine in Scotland. In Hatfield moss, which was evidently a forest eighteen centuries ago, fir-trees have been found ninety feet long, and oaks one hundred feet; but at the bottom of the mosses, strange to say, Roman roads have been discovered, showing that the mosses have grown since the Roman invasion. "All the coins, axes, arms, and other utensils found in British and French mosses, are also Roman—so that a considerable portion of the peat in European peat-bogs is evidently not more than the age of Julius Cæsar. Nor can any vestiges of the ancient forests described by that general along the great Roman way in Britain be discovered, except in the ruined trunks of trees in peat."† When we take these and similar instances into account, we are justified in regarding as altogether visionary those calculations in which M. de Perthes and others have indulged,

\* Lyell's "Principles of Geology," p. 721.

† Ibid.

when they have speculated regarding time, and have claimed tens of thousands of years for the formation of a moss only thirty feet in thickness. In an interesting little work by the Rev. J. Brodie,\* there is reference to the Roman road in Scotland as covered by eight feet of moss, and as laid bare fifty or sixty years ago: and he supposes that this road could not have been made before the year of our Lord 200, that being the date at which the Roman conquests were pushed farthest into Britain; and, assuming the rate of growth in the peat to have been uniform from that time, Mr. Brodie infers that there would be six inches of increase in a century—not an inch and fifth, as M. de Perthes has calculated.

The uncertainty of those causes which determine the age of peat mosses, is made still more apparent by comparing the facts in Europe with those of America. To the authority of Professor C. Hitchcock few will hesitate to submit; and his conclusion is, that “the growth of peat is *extremely variable*, even in *contiguous swamps*. It accumulates much more rapidly in the primitive forest than after clearings have been effected, chiefly, perhaps, because in a wooded country rain is more common, as any one who has travelled in a wild northern region cannot have failed to notice.” Comparing the rate of growth where the country has been to a large extent cleared, with the rate of growth where there has been no such clearance, Professor Hitchcock has come to definite conclusions as to the variableness of the growth. Supposing

\* “The Antiquity and Nature of Man,” by the Rev. J. Brodie, M. A., pp. 49, 50.

that the original Danish forest of Scotch fir may have been destroyed by fire in a single season, as often happens in North America, he affirms that the blackened trunks would be replaced by the "second growth," consisting in America of the birch, poplar, and similar trees, and that in two or three centuries the new forest would be thoroughly established. In Denmark, while the second forest was of oak, and was succeeded by a third, consisting of beech-trees, he does not admit that the whole forest would have been exclusively made up of any one of the three—firs, oaks, or beeches: "Our primitive forests commonly contain a 'mixed growth'—it is generally very limited valleys or hill-tops that are covered by only one kind of tree; pine, spruce, juniper, and maple, are intermixed in equal proportions in some regions, while oak, hickory, and chestnut predominate elsewhere. Observation would therefore indicate the probability of a mixed growth in the stone and bronze as well as in the iron age. For this reason we must leave a margin in our calculations of time from the succession of forests—certain districts having the oaks predominating longer than others, may have been those taken for calculating. Estimating from these new standpoints, we may say that the minimum required to produce the changes observed in the Danish forests, may be two thousand years."\*

Other elements, necessarily entering into the probabilities of the question of time, increase the difficulties of calculation. Trees growing on the edges of the moss

\* Quoted by Professor Duns, in "Science and Christian Thought," p. 246.

fall over on its surface, and are in turn covered over ; slips which are not uncommon might carry different trees into the moss, and rains falling, or water oozing into the edges or the centre of the moss, might give it a *fluidity* not at all uncommon, which might admit of flint or other implements gradually sinking to a considerable depth. It appears preposterous to found any conclusion as to time on the fact of implements being discovered at any depth in moss. If traces of man's presence in a definite form, as the Roman roads at the depth of eight feet in the Hatfield moss, or if evidences of human action on any of the sunken trees were adduced, there would be greater plausibility in the arguments by which their conclusions are vindicated.

Sir Charles Lyell himself, after reviewing the calculations in which "archæologists and geologists of merit have indulged, in the hope of arriving at some positive dates," has given, as his conclusion, that they are only "tentative," in short, only "a rough approximation of the truth." Although 4,000 and 7,000 years before our time have been assigned for the history of certain events and monuments, he candidly admits "that much collateral evidence will be required to confirm these estimates, and to decide whether the number of centuries has been under or over-rated."\*

2. Another prominent instance of flint implements made by man, and on which, in reasoning, much stress has been laid, has been adduced from the valley of the Somme, in Picardy, France. Referring to geological

\* "Antiquity of Man," p. 373.

treatises for a minute description of the valley, we shall limit our statement to such details as are required for forming a fair estimate of the argument. The chalk formation originally occupied the whole district; but, by degrees, a stream began to flow across this chalky region, and a valley was formed, which, in the bottom, has an average width of a mile. In the lowest part of the valley is a bed of gravel, from three to fourteen feet thick; and on this, separated by a thin layer of clay, there is a growth of peat from ten to thirty feet in depth, through which the river is flowing. On the sides of the valley are beds of gravel resembling ancient river banks, the lower of which is close on the peat, while the upper is from eighty to a hundred feet higher. It is in these gravel-beds that, mingled with bones of animals now extinct, various tools of flint, spear-heads, &c., have been found. Two arguments for the antiquity of the race have been based on the fact of the remains which have been associated together. The first is, that the men who used the flint instruments lived with races of animals long extinct; and the second is, that a long period was required for the geological changes which have subsequently taken place.

But the mere fact that man was contemporaneous with animals now extinct, can prove nothing in reference to his antiquity. The animals may have been lingering through a gradual extinction to his day, or man may have begun to exist when their race was vigorous. A writer in the "Westminster Review," who strongly pleads for man's remote antiquity, has frankly admitted

that the argument from coincidence of remains goes for nothing—"Since many species of animals, whose first introduction dates much farther back in geological time, are at present contemporaneous with man; and carcasses once frozen up might be preserved for thousands of years as well as for hundreds, for millions as well as for thousands."\* The late Professor Rogers, writing in "Blackwood's Magazine," reasoned powerfully to the same effect, that geologists too hastily gave to the Diluvium a remote antiquity; that its relation to historic time is not ascertainable; and that it is every whit as natural and as logical to infer the *relative recency* of these now extinct animals because the works of man are found with them, as it is to infer the *antiquity of man* from the assumed greater age of these animals. He insists that a specially remote age is not necessarily attributable to the flint-shaping men of the Diluvium because of their living at the same time with the mammoth, and that, if their association is to be held proving a long prehistoric antiquity, other evidences must be obtained.†

It is obvious that this line of exposition may be legitimately extended to meet all the instances in which flint and other stone implements have been found mixed with the bones of extinct animals. Their coincidence proves nothing as to remoteness of time in man's history.

The second form of the argument depends on the length of time required for geological changes which have taken place since the extinct animals and man have

\* "Westminster Review," April, 1863.

† "Blackwood's Magazine," October, 1860; pp. 428, 431.

been supposed to live together. Geologists are not agreed regarding the *age of the beds* in which the flint implements have been found. Mr. Prestwich has concluded that the evidence requires of us to bring forward the extinct animals towards our own time, as much as it does to carry man back toward their supposed place in geological time. The discussion has oscillated between those who admit the probability of unexpected temporary convulsions or violent movements, and those who advocate undeviating uniformity. While Sir Charles heads the latter in Britain, the late Sir R. Murchison, an authority equally high, led those geologists who resist the attempt to account, by slow and uniform processes, for *all* the phenomena which are presented. The two methods in nature, if we so designate them, almost invariably go together; and if this be granted, we may, without much difficulty, rest assured that such rapid changes took place as are adequate to explain the facts by which so many are at present perplexed. Dr. Duns, after referring to Sir Charles Lyell's description of the erosive action of running water, and his illustration of its force by the river Simeto making its passage, in the course of two centuries, through the lava of Etna, (which had dammed up its bed in 1603,) by opening through the solid mass a channel varying in width from fifty to several hundred feet, and in depth, in some parts, from forty to fifty feet, puts this apt question, "If the Simeto has, in two hundred years, cut a ravine through hard volcanic rock a hundred feet wide and fifty deep, how long would the Somme take to excavate its present valley in the soft

chalk rocks over which it runs? In the latter case, we have not hundreds of years, but thousands at our disposal."\* While there were at work other agencies than this erosion by water, its influence ought surely to be fairly estimated as producing geological changes.

In an able paper on *Valley Gravels*, which Mr. Alfred Tylor read at the Geological Society, the not uncommon supposition was maintained, that the drift of the Somme valley was of marine origin, and that the flint implements had been introduced by floods, and were of recent date. While resisting both conclusions, Mr. Prestwich confessed that he regarded the gravels as having been deposited by forces far more powerful than any recognized at the present day, and that the time for producing the results now visible was therefore *comparatively short*. Sir Roderick Murchison has emphatically stated, in reference to a corresponding subject, that "no analogy of tidal or fluvial action can explain either the condition or position of the *debris* and unrolled flints and bones. On the contrary, by referring their distribution to those great oscillations and ruptures by which the earth's surface has been so powerfully affected in former times, we may well imagine how the large area under consideration was suddenly broken up and submerged. . . In short, the cliffs of Brighton afford distinct proofs that a period of perfect quiescence and ordinary shore action, very modern in geological parlance, but very ancient as respects history, was followed by *oscillations* and violent fractures of the crust, producing the

\* "Science and Christian Thought," pp. 273, 274.

tumultuous accumulations to which attention has been drawn."\*

In the view of these oscillations, and their occasionally violent movements, sometimes extended and sometimes limited in their area, we cannot reckon on long periods for producing effects which may have been rapidly accomplished, nor can we determine when these may or may not recur in the physical history of the earth's crust.

\* Sir R. Murchison, "On the Distribution of the Flint Drifts of the Southeast of England."

## CHAPTER XII.

ANTIQUITY OF MAN (CONTINUED)—THE CHRONOLOGY OF ARCHÆOLOGISTS—INFERENCES CONNECTED WITH GEOLOGY AND HISTORY—THE DANISH SHELL-MOUNDS—SWISS LAKE DWELLINGS—EGYPTIAN MONUMENTS.

The antiquities piece on in natural sequence to the geology; and it seems but rational to indulge in the same sort of reasonings regarding them. They are the fossils of an extinct order of things, newer than the tertiary—of an extinct race, of an extinct religion, of a state of society and a class of enterprises which the world saw once, but which it will never see again; and with but little assistance from the direct testimony of history, one has to grope one's way along this comparatively modern formation, guided chiefly, as in the more ancient deposits, by the clew of circumstantial evidence.—HUGH MILLER.

THERE is another class of facts more closely related to Archæology than to Geology, which are also claimed as evidence of man's antiquity. Although archæology, as a science, has to do exclusively with man and his works, it is difficult to determine where it begins in geology and where it ends in history, as it interweaves with both and binds them together. While flint implements and human bones have been found in caves and moss-depths, or in other superficial formations, we have classed them under the section *geology*, because there has been nothing artificial in their resting-place to distinguish the remains of man from those of the lower animals; but where the remains have been connected with *artificial structures* of any kind, such as the Danish shell-

mounds, the lake dwellings, or the American mounds, or Egyptian and other monuments, we should class them under *archæology*.

This distinction, which we venture to suggest, will free the discussion from some of the embarrassment and confusion which arise from commingling the same facts under both the geological and archæological divisions. It is not absolutely accurate; because everything *prehistoric* which is related to man is archæological, whatever be the position or circumstances in which it is discovered; but the distinction is convenient, and it is sufficiently logical to give consistency to the discussion of the question before us.

III. For these reasons, we have separated the facts which we have now to consider from those already examined, as more properly geological.

I. The first which we notice are the DANISH SHELL-MOUNDS, or Kjökkenmödding—"kitchen refuse heaps." What are the facts here, and what the inference? "At certain points," says Sir Charles Lyell, "along the shores of nearly all the Danish islands, mounds may be seen, consisting chiefly of thousands of cast-away shells of the oyster, cockle, and other mollusks of the same species as those which are now eaten by man. These shells are plentifully mixed up with the bones of various quadrupeds, birds, and fish, which served as the food of the rude hunters and fishers by whom the mounds were accumulated." Similar mounds have been left near the shore by North American Indians. "Scattered all through the Danish heaps are flint knives, hatchets, and other instru-

ments of stone, horn, wood, and bone, with fragments of broken pottery, mixed with charcoal and cinders; but never any implements of bronze, still less of iron. . . . The mounds vary in height from three to ten feet, and, in area, are some of them 1,000 feet long, and from 150 to 200 wide. They are rarely placed more than ten feet above the level of the sea, and are confined to its immediate neighborhood."\* Sir Charles briefly repeats his argument based on the growth of a succession of different kinds of trees, and on the slow growth of peat-moss; but as his reasoning has already been fully considered, and its weakness exposed in the light of his own admissions,† it is unnecessary here to make further allusion to it. All that is required is to notice such new reasoning as he has adduced, and for that purpose a few sentences will suffice. His arguments are (1) As there are parts of the coast where the western ocean is wearing down the cliff, it appears that, through a slow process, the land has been carried off on which shell-mounds were raised; and (2) As the cockle and mussel shells in the mounds are larger than those now existing in the neighboring sea, a change in its littoral water has taken place. His other arguments regarding the smaller race of dogs then existing, and those birds, also, which are now all but extinct, carry little or no weight on his side of the question. That certain mounds are not found on the western shore, proves nothing as to their antiquity, nor does the fact of a moss intervening between the sea and any mound; for there is no evidence that moss was formed subsequently

\* *Antiquity of Man*," pp. 11, 12. † *Ante*, Chap. 11, pp. 246, 251.

to such mounds, and besides, the early inhabitants may have preferred to rest on their landward side.

The mere deterioration of the eatable shells can scarcely be accepted as evidence; for, as Professor C. H. Hitchcock has stated, while "similar heaps are scattered along the Atlantic coast, from Prince Edward Island to Georgia," and while, in both continents, "these heaps indicate that the oyster formerly flourished in abundance where it is now extremely scarce," this fact does not of itself necessitate an ancient date for the forming of the refuse heap; "because in Maine, we can prove that the oyster became thus nearly extinct within the time of the white population." "At the present day," says Professor Duns, "there are tribes of Indians in British North America who form such refuse-heaps still; while, contemporary with them, there are others who have no such customs. Would any one, then, be warranted to conclude that these refuse-heap makers are greatly more ancient than the others?"\* A minute examination of proof, not only in the localities where recent discoveries have been made, but in those distant parts of the world in which similar facts or changes have been noticed, discredits the deductions which have been made regarding man's antiquity.

## II. LAKE DWELLINGS.

There is another series of facts which have of late awakened much interest, because they have been employed in some instances in evidence of a remote anti-

\* "Science and Christian Thought," p. 228.

quity of man. LAKE DWELLINGS, or houses built on wooden piles driven into the soil, or firmly propped at the bottom of lakes, and at some distance from the shore, have been found in Switzerland, in Italy, in France, in Ireland, and Scotland. This strange mode of dwelling seems to have been common in Southern and Western Europe, and to have been intended as security against the attacks of beasts of prey, as well as from the inroads of hostile tribes. Such dwellings were little known, and attracted little attention, until the lakes and rivers in Switzerland sank lower than usual in the winter of 1853-54; and the inhabitants bordering the lake of Zurich attempted to reclaim some of the shore by dredging the mud to form an embankment, when they unexpectedly found not only wooden piles driven into the bed of the lake, but hammers, celts, and various implements. These hamlets built above the waters having at times taken fire, many of the implements and utensils sank into the lake; and these relics have become the fossils by which we interpret the history of the people and estimate its length—they are the clew through the labyrinth of prehistoric times by which the archæologist reaches a dim knowledge of the past.

Finding stone implements in connection with lake dwellings, while in others those of bronze predominate, archæologists have given them an historical significance, assigning, by a kind of random estimate, to the stone-period an age of from 5,000 to 7,000, and to the bronze age from 3,000 to 4,000 years—in all, from 8,000 to 11,000 years, without including any portion of the iron

age. Precisely the same kind of elasticity prevails in the calculations of the archæologist, of which we complained in the reasoning of the geologist. M. Morlot reaches his conclusions by assuming that the Tinière, a torrent which flows into the lake of Geneva, had formed its delta of gravel and sand with uniform regularity, and that layers of vegetable soil had been spread by the slow hand of many centuries; so that when the cutting for a railway laid open a section, thirty-two feet in depth, he had only to *assume* for the Roman period an antiquity of sixteen or eighteen centuries, and the rest was easy; to add thousands was natural, and contradiction was difficult. M. Troyon makes similar calculations, but Sir Charles Lyell hesitates to accept any of them.\*

Those lake dwellings which are nearer us—the crannoges of Ireland and Scotland—are acknowledged to be of recent date. Sir John Lubbock himself admits that they are “referable to a much later period than those of Switzerland,” and that “they are frequently mentioned in early history.” The O’Neil, as late as 1567, is reported to have fortifications “*in sartin ffreshwater loghes.*”† Is it not all but inconceivable that rude lake dwellings should continue through a period of 5,000 or 7,000 years, and that through all that time agricultural and pastoral life should in any one territory be non-existent? Lake dwellings would be inconsistent with the maintenance of flocks and herds; and to suppose that hunters only lived

\* “Antiquity of Man,” p. 29.

† See an interesting chapter on Lake Dwellings in Sir John Lubbock’s “Prehistoric Times,” second edition, pp. 166-214.

through that long and dreary period, is utterly incompatible with the growth of population on the one hand, and with the supply of food by the chase on the other. Herodotus described lake dwellings, about 320 years B. C., similar to those of the Swiss, as prevailing among the Pæonians in Thrace; and although he has informed us that the Pæonians lived in them with their families and horses, the fact does not nullify the opinion that the extension of this system, or anything like it, for thousands of years, is utterly at variance with the laws of the nomadic or pastoral life. Similar habitations are still to be found among the Papoos in New Guinea and in the straits of Malacca.\*

Such dwellings prove the enduring character of certain habits of life in the midst of an advancing tide of improvement; nothing more. They cannot be connected with the meagre skill of the stone age, as it has been usually represented, because the very maintenance of such dwellings presupposes agricultural or pastoral supplies, and the facts which have been brought to light confirm this view. In short, when all the evidence which these lake dwellings furnish—embracing stone and bronze implements; fragments of rude pottery; remains of wheat, and barley, and flax, which must have been introduced from Asia; the bones of animals whose representatives still live in Europe, with the exception of the Urus, which, however, had not become extinct until after Cæsar's time; the thickness of mud deposits in the delta of Tinière; the rate at which the land has en-

\* "Scripture and Science not at Variance," p. 184.

croached on the lake of Brienne; and the growth and movements of mosses or bogs within even historic times—has been carefully sifted and weighed, the mere idea of 5,000 or 7,000 years of such supposed facts resulting at last in the evolution of a bronze age is absurd; it is without a vestige of that support which should entitle it to any acknowledgment in a strictly scientific inquiry.

As the Danish mounds and lake dwellings have been introduced to give evidence in favor of man's antiquity, by some whose attainments command universal respect, it is necessary to make here one or two additional references to the subject. When considering the origin and progress of civilization, we directed attention to the stone, bronze, and iron periods, in their relation to man's power of invention in the savage state, and his subsequent advancement.\* but it may be of importance to notice, briefly, what did not then fall logically within the limits of our exposition, viz., the relation of these distinct periods to the general question of TIME. What evidence do the supposed periods give on behalf of a remote antiquity for man?

While the theory of distinct periods gives convenient forms of expression, and is useful in indicating, in a general way, progress in mechanical and industrial arts, it assumes what has been already proved to be untenable in either fact or principle—*first*, that man's origin was lower than that of the lowest savage now on the face of the earth; *second*, that he has slowly crept upward through the stone and bronze periods to his present civilized state;

\* Chapters 9 and 10.

and *third*, that each successive period emerged from that which preceded, only after it had run a course of some thousands of years. It is the last assumption which falls to be noticed; the first and second have been already considered.

On every student anxious to know the truth of history, irrespective of collateral interests, the question naturally presses itself, What of Asia and Africa? While it is instructive to examine facts in Europe, and to found on them sweeping generalizations, is it fair to extend these to countries whose facts, so far as they have been yet ascertained, suggest a different conclusion? It is well known that, during at least part of the stone age in Europe, the East was resplendent in its civilization. How arrange the facts of African and Asiatic civilization so as to make them fit into this theory? In some parts of the world, the stone age still lingers. Suppose that three hundred, or only a hundred years ago, its tools had been buried, and explorers in the neighborhood of Cape Horn brought up from diggings some stone implements, what value could be attached to the reasoning based upon them as to a distant age? Not dissimilar is the weakness of much of the recent reasoning as to periods which we have been constrained to study; it does not make allowance for the coexistence in the world of tribes using stone implements, of communities using bronze, and of nations using iron. The advocates of the succession of such periods by a kind of lineal descent, fail in their proof; nay, rather, are answered by their own admissions that when bronze implements have appeared, they have

been introduced by some foreign hand into a stone-using tribe. Sir John Lubbock has admitted, as already stated, (p. 187,) that bronze was introduced, not invented, in Europe; and Worsaae is still more explicit on this subject, when he states what really is an unanswerable refutation of the whole theory of period-descent, a refutation all the more decided because coming from one who is not only highly distinguished as an antiquarian, but known as an ardent supporter of the Period theory. "We must not, however," he says, "by any means, believe that the *bronze* period *developed itself* among the aborigines gradually, or step by step, out of the stone period. On the contrary, instead of the simple and uniform implements and ornaments of stone, bone, and amber, we meet suddenly with a number and variety of splendid weapons, implements, and jewels of bronze, and sometimes, indeed, with *jewels of gold*. The transition is so abrupt, that from the antiquities we are enabled to conclude, what in the following pages will be further developed, that the bronze period must have commenced with the irruption of a new race of people, possessing a higher degree of cultivation than the earlier inhabitants."\* Not only is this introduction or irruption acknowledged, but the contemporaneous use of stone and bronze implements and utensils is distinctly specified. "The universal diffusion of metals could only take place by degrees. Since in Denmark itself neither copper nor tin occurs—so that these metals, being introduced from other countries, were of necessity expensive—the poorer classes continued *for*

\* "Primeval Antiquities of Denmark," by J. J. A. Worsaae, p. 24.

*a long* series of years to make use of stone as their material."\* That they "continued for a long period," is an admission which shows how uncertain must be all calculations as to TIME, for if, in any locality, stone implements left by the poor had been discovered long after bronze was used by the higher classes, a miscalculation of some thousand years might possibly be made.

Engelhardt, referring to the same sudden change, as it is seen especially in burial customs, says that it cannot be accounted for by the peaceful intercourse of civilized nations, and that the *time* of the change cannot be determined by the antiquities *themselves*, because neither coins nor inscriptions have been discovered.

And what is worthy of special notice is, that Engelhardt acknowledges an equally complete and *sudden* change in the introduction of the iron age. There is no slow transition. "The differences," he says, "are too striking. We *look in vain for points of resemblance* between the antiquities of the two periods with regard to shape and ornamentation."† Thus, according to these Danish archæologists, there is no proof whatever of the same race passing upwards from the stone to the bronze, or from the bronze to the iron age, without some new impulse or adequate external force. Nor do the leading Danish antiquarians indulge in extravagant claims as to time. Worsaae attributes "to the stone age an antiquity of at least three thousand years;" and he adds, that

\* "Primeval Antiquities of Denmark," by J. J. A. Worsaae, p. 24.

† "Denmark in the Early Iron Age, illustrated by Recent Discoveries in the Peat-Mosses of Slesvig," by Conrad Engelhardt, p. 7. 1866.

“there are geological reasons for believing that the bronze period must have prevailed in Denmark five or six hundred years before the birth of Christ.”\* This estimate is easily reducible within the general limits of Bible chronology; and Engelhardt is equally cautious in making the first or oldest division of the iron age about 250 B. C. The transition period he extends to the seventh century of the Christian era, and the late iron age to the introduction of Christianity in Denmark, about the year 1000.

But even this modified and comparatively unobjectionable view is not accepted by some of our more experienced archæologists. While they admit that stone implements are found abundantly in all parts of the British Islands, and in all parts of the world, and that “nothing seems more natural, not only in a very rude state of society, but also in much more civilized times, when communication between different parts of the country was slow, and metal was not always to be had, than to form rough tools or weapons, especially for the chase, of hard stones,” they are of opinion that “it has been assumed rather hastily that, where we find these implements of stone, the people to whom they belonged were not acquainted with the art of working metals.”\* Mr. Wright, whose decision is of great weight, gives a series of examples to show that the stone implements have mingled with bronze and iron, and that they have been continued to a recent

\* “Primeval Antiquities of Denmark,” p. 135.

† “The Celt, the Roman, and the Briton,” by Thomas Wright, Esq., pp. 69, 72.

date—to the battle of Hastings, for instance, in England, and to the wars of Wallace in Scotland.\* And he gives it, also, as his opinion, that many of the flint implements could *not* have been prepared as they have been, without metal instruments.

Obscure as many of the local facts are, and unconnected as are the records of the different races, enough is becoming distinctly known not only to make us hesitate about admitting the sequence of these ages in the line which the theorists demand, but to confirm our belief in the general chronological outline given in the Bible, to which we have already referred. “The utmost that these remains enable us to do,” says an able writer, “is to conclude something of certain races in a corner of the world, probably, at any rate possibly, driven into it from earlier seats; they contribute but little light to the larger and more interesting questions connected with the early condition and progress of mankind. And these remains themselves are, for the present, hopelessly isolated. All existing collections, numerous and abundant as they are, fail to supply a thread which connects one group with another, either in the line of descent or in collateral relationship. We cannot find the clew to pass from stone to bronze, or from bronze to iron. Further, it is very precarious to make rudeness in workmanship or difference in material a test of relative antiquity. . . . Again, the relation, in point of time, of bronze to iron, is far too uncertain to warrant us in making an age of iron after an age of bronze. It may be probable that in certain races

\* “The Celt the Roman, and the Briton,” p. 72.

bronze was used before iron in preference to it, or, at any rate, instead of it; but, as a general rule, we can but guess, and our grounds for guessing are not very good. We are in absolute ignorance of everything connected with the first use of metals; how and when they were applied to the purposes of daily life; under what circumstances of discovery, or foreign introduction and teaching, they came to be employed in Europe.”\*

There is a very general concurrence of opinion among ethnologists, that the successive advances of population over Europe have originated in Asia; that the probable seats of early civilization were the banks of the Nile, the Euphrates, the Tigris, the Indus, and the Ganges; and that the rapid changes in mechanical or industrial arts which unexpectedly meet the archæologist in Western Europe, are traceable to Eastern impulse. Archæological science is adjusting its inferences regarding periods to a wider induction of facts, and it is cheering to find that the adjustment is coming closer to the Scripture record. Students in different sections are so approaching each other, that the light of their more accurate conclusions is beginning to blend with the light which the Bible has been for ages shedding on the antiquity of man.

Our attention has hitherto been exclusively directed to the evidence connected with the rude skill and practices of either apparently or really barbarous tribes; but there remains for examination another important department, which is dependent for its facts on the existence of a high degree of civilization. It is

\* “Saturday Review,” August 12, 1865, p. 208.

III. THE EVIDENCE FROM ANCIENT MONUMENTS AND  
INSCRIPTIONS.

As the monuments of Egypt alone have supplied the chief proof which has been adduced in support of man's antiquity, it will be unnecessary to examine in detail subordinate or incidental evidences of the same kind obtained in other countries; nor will it, indeed, be necessary to spend much time with the evidence which Egypt has supplied, because the reasoning which was for some years eagerly maintained has been almost altogether abandoned. We shall have occasion, however, to refer more particularly to the monuments and inscriptions, not only of Egypt, but of other countries, when inquiring to what extent, in the light of HISTORY, the minuter as well as the more general statements of the Bible are receiving merited recognition and acknowledgment.

Nothing could be more natural, we admit, than the demand on the part of the rejecter of the Bible, that the Christian should look at the Egyptian monuments and inscriptions, and acknowledge the likelihood that they told of an earlier history for man than the Bible gave. The pyramids of Egypt, with their overawing and sombre vastness; her temples, with their sphinxes, colonades, and painted chambers; her palaces and obelisks, with their traces of exquisite culture, scattered with most amazing profusion; her mysterious hieroglyphics and papyrus-rolls; have made her truly "a land of wonders," and have most naturally suggested the inquiry, Since ruins so vast, representing in varied forms art so ad-

vanced, have existed for so many centuries, what may have been the range of preceding history that created a civilization which, after all, they only in part reveal? It is indicated in the Bible that, even in Abraham's time, remarkable advances had been made; for when he went to Egypt there was a completely-organized nation, with its king and princes, its gold and silver, and its abundant agricultural produce. In all the aspects of ancient Egypt, there appeared so many tokens of a remotely early civilization, that no surprise need be felt at the urgency with which infidel writers continued to ply Christians to yield the Bible as historically untrustworthy, nor at the emphasis with which they asserted that *if* these monuments could only find an interpreter, the writings of Moses would soon be thoroughly confuted. To the questions, How long since these pyramids were built? and, What mean these inscriptions? the Christian apologist could give no answer; and his silence was reckoned equivalent to bigotry or defeat. But the monuments have at last found interpreters, and the Christian has obtained his required answer.

In considering the early civilization of Egypt and other countries, it must be granted that there are no dates by which we can determine the length of time between the Deluge or the Dispersion at the building of the Tower of Babel, and the visit of Abraham to Egypt. It has, therefore, been variously estimated. The Vatican copy of the Septuagint gives 1,172 years as the length between the Deluge and the 70th year of Terah, Abraham's father; Josephus, 1,002; and the Hebrew, only

about 427 years. The difference is very great between the first date and the last ; but we may fairly assume that a much longer period elapsed between the Deluge and the time at which Abraham visited Egypt. If we even restrict ourselves to the lowest Septuagint number, there is a period of about 1,200 years for the outcome of Egyptian civilization, as it is represented in Abraham's time. We do not, however, impose any such restriction ; the period may have been greatly longer ; the Bible does not settle those early dates, nor does it supply reliable historical data, until the time of Saul and the building of the Temple by Solomon. We do not hesitate, therefore, to give such scope to the Bible chronology between the Deluge and the time of Abraham's visit to Egypt, as shall be sufficient to provide for all the facts of its early civilization. As the numbers given in the Bible have been expressed by alphabetic letters, which are, in several instances, like each other, they may have been interchanged ; and not only may differences have thus arisen, but the time also may have been unduly shortened. As the Bible is not specific in its early dates, none of the chronological systems which have been published have divine authority ; and we violate no principle in preferring whatever period gives the fullest and most natural range for the development of Egyptian civilization prior to the times of Abraham and Joseph.

It is, at the same time, to be kept in view, that all the skill which those had reached who lived before the Deluge, their knowledge of *writing*, (probably in different forms,) their power of representing ideas and objects

pictorially, and their notions of domestic and social organization, would, in all likelihood, be transferred to the New World by Noah and his family. The human race would thus enter on a fresh course after the Flood, not with everything to learn, but with the ideas, the habits, and the mechanical skill of that ancient civilization of which striking glimpses are obtained in the first chapters of Genesis.

While holding this view, and admitting the necessity of an elongated early chronology, we refuse to rush to the opposite extreme, and to accept or advocate a period of six or seven thousand years between the Deluge and the time of Abraham, not only because it is unnecessary for such facts as are known, but because, in that time, according to the ordinary laws regulating the growth of nations, there would have been other revolutions than those which have been recorded both in the Bible and in profane histories.

It is necessary to inquire here whether the monuments themselves unfold anything like the history which opponents of the Bible have claimed. While it was supposed that the pyramids were built in ages so remote as to baffle research, and that the mysterious inscriptions on monuments and on the papyrus-rolls, if only once interpreted, would unfold a history which should confound the defenders of the Bible, strangely enough, in the providence of God, the age of the pyramids has been determined, and the inscriptions have been largely deciphered, in such a way as to vindicate the Bible and place legitimate inferences beyond cavil or objection.

That which is held to be the oldest pyramid, has been proved by Sir John Herschel to have been built as late as between 2171 and 2123 B. C. Professor Piazzi Smyth has confirmed the conclusion. By astronomical science the date has been established, and the idle speculations about remote ages have been dissipated. There are, it is true, some monuments which are supposed to be older than this great pyramid; as, for instance, the pyramid of Saqqarah, the tomb of King *Senta*, and the statues of the family of *Sefra*, belonging respectively to the first, second, and third dynasties; but two centuries, at most, are held sufficient to represent the whole difference. Champollion has given it as his opinion that "no Egyptian monument is really older than the year 2200 B. C." Mariette Bey has adduced evidence in favor of a like general conclusion; and Sir J. G. Wilkinson has decided that few paintings or sculptures remain of an age prior to the accession of Osirtesen I., whom he supposes to have been contemporary with Joseph, and to have ascended the throne about the year B. C. 1740. The tombs in the vicinity of the pyramids, and those hewn in the rock near Qasr e'Sy'ad, the ancient Chenoboscion, he regards as places of sepulture of individuals who lived in the time of Suphis and his immediate successors, and as having, therefore, a date about the year 2090 or 2050 B. C.\*—that is, before the time of Abraham. The claims of a greatly older date, because of stones in the area of the pyramid, he sets aside as without support. "It is evident," he

\* "Manners and Customs of the Ancient Egyptians," by Sir J. G. Wilkinson, vol. 3, pp. 277, 278.

says, "that the tombs built of stone, which stand in the area before and behind the great pyramid, were erected *after* it had been commenced, if not completed, as their position is made to conform to that monument; and that those hewn in the rock at the same place were *not of an older* period, is shown by the style of the sculptures and the names of the kings."\* That date must be the starting-place of the Bible student—if he go backward, there is hopeless confusion; if he go forward, there is increasing light.

This important decision as to the date of the oldest pyramid, has been amply vindicated by the inscriptions that have been recently deciphered. These inscriptions, with their mysterious hieroglyphics or sacred sculpture, and their hieratic characters, which no scholar could interpret or explain, were for many centuries wistfully examined, but in vain. Those whose attainments and skill were the most likely to command a solution of these historical enigmas, were completely baffled; and the rejecters of the Bible, as unworthy of belief in even its historical statements, were all pointing in triumph to the mysterious monuments of Egypt as probable witnesses of remotest ages, when, apparently by accident, the means of interpreting them were obtained. The circumstances were no less remarkable than the *time* in the controversy was opportune. The French Government had sent along with the army, in its expedition to Egypt in 1798, a number of men distinguished in the various branches of sci-

\* "Manners and Customs of the Ancient Egyptians," by Sir J. G. Wilkinson, vol. 3, p. 278.

ence and literature, to inquire into the antiquities of the country. Engineers and draftsmen were sent to help them—every facility was granted to secure success—and the reports, with the monuments sent home, aroused public attention not in France only, but over all Europe.

In digging the foundation of Fort St. Julian, near Rosetta, the French engineers came on a huge block of black basalt, having inscriptions which at once awakened the greatest interest and the liveliest hopes. This precious monument was afterwards taken from the French by the English fleet, and in 1799 deposited in the British Museum as the "Rosetta Stone." Its importance it would be difficult to over-estimate. As its history is well known, no fuller references need be made to it than are barely necessary for our argument. It has three distinct inscriptions. The uppermost one is in hieroglyphics much mutilated; the second is in the enchorial or demotic character—that is, in the language early spoken by the people, but afterwards lost; and the third is in Greek, and it was understood to be a translation of the hieroglyphics. For about twenty years the problem remained unsolved; the Rosetta stone continued a mystery, notwithstanding the earnest study of the most accomplished scholars in Europe, who had obtained copies of it. While many a burning brow had ached in the attempt to solve the problem—while Champollion, a young Frenchman, having with wonderful enthusiasm studied Egyptian antiquities, had published, in 1814, his learned work, "*L'Égypte sous les Pharaons*," containing a collection of the geographical notices occurring in Coptic MSS. col-

lated with those of ancient and modern authors, and while, by the research and ingenuity which his work evinced, he had given fresh impulse to many an ardent student—inidel archæologists, and mere litterateurs, whose attainments in any science were slight, were alike eager in making the most of their opportunity, by turning every new discovery to account against the Bible, by challenging Christian apologists to speak out in defence of its historical statements, and by meeting their silence with ridicule, sarcasm, and merciless invective.

The claims of an immense antiquity were urged with as much tenacity of purpose as have been the demands of the geologist for millions on millions of years, and two of the strongest proofs then adduced were the once famous Zodiacs of Denderah and Esneh. The facts may be briefly recalled, as showing us the necessity there is for caution, and the encouragement there is for confidence in the Bible.

When, in 1798, General Bonaparte, with his French soldiery and his literary men, entered the small town of Denderah, in Central Egypt, he found two temples, one large and one small, covered with hieroglyphics and images of deities. The literary men not only copied the drawings, but carried away the whole ceiling of the small temple, and when it reached Paris, ardent archæologists hastily scanned it; they applied to certain marks in the inscription some principles of astronomical calculation, and inferred that the time at which the temple was erected was 17,000 years before the Christian era! There was great excitement; volume followed volume

on the subject; pamphlets and newspapers discussed the theme as the great discovery of the eighteenth century. Hundreds of thousands flocked to the National Library in Paris to see the antediluvian monument; and when Charles X., in order to save it from destruction, placed it in a dark chamber, skeptics declaimed fiercely against keeping the people from becoming enlightened, and railed against belief in a Deluge or in Creation as stated in the Bible, and especially against the impositions of a "wily priesthood." "Now you can see," they said, "that the Old and New Testaments contain, from beginning to end, a series of lies."

In the temple of Esneh, another of the "Zodiacs" was discovered, and on being brought to France and examined, it also had an antiquity of 17,000 years assigned to it. The dates, however, were not indisputable, for M. Jomard made one of them 1923 B. C., M. Dupuis made it 4,000 years old, while the popular inference was that of M. Gori, who assigned 17,000 years as assuredly the right age. When scholars who had precisely the same data came to conclusions so widely different, we should have supposed that comparatively little importance would have been attached to the proof in favor of great antiquity; but it was otherwise. Their reasoning made a deep impression, not only in France, but in Britain, and in the whole of Europe, and the oldest date found the fullest acceptance.

For a time there was no answer; but it came. Dr. Young, in 1819, published the results of his patient and laborious investigations, in the "Supplement to the

Encyclopædia Britannica," under the article *Egypt*. A beginning in the right direction was made, and in a short time, through the labors of Dr. Young and Champollion, the Rosetta Stone's threefold inscription became the key to open up many of the Egyptian secrets.

After almost incredible toil, Champollion, having deciphered the hieroglyphics, read in the famous inscription on the temple of Denderah, the name and titles of *Augustus Cæsar!* showing that it could be no older than the time when Christianity was introduced; and in that of the temple at Esneh, the name of *Antoninus!* proving that, instead of being built 17,000 years before the Christian era, it was about 140 years after it! There was a sudden and strange collapse over all Europe of the inflated opposition to the Bible, which this, and similar discoveries, had temporarily sustained; and it is now indisputable that all the six Zodiacal representatives which have been discovered in Egypt, are traceable to the time when the country passed through the hands of the Greeks, and that their origin is within two hundred years of the Christian era.

As we thus closely follow archæological guidance to the clearer or *historic* side, is it not instructive to observe how, at the outset, mistakes have been committed similar to those which we noticed on the *geologic* side? and how correction has proceeded from the very science whose principles have been misapplied in promoting error?

The exposing of erroneous conclusions was only part of the important work that followed the acceptance of the methods of interpretation which Young and Cham-

pollion had introduced. Rosellini, Lepsius, Sir G. Wilkinson, Birch, and others, have also rendered invaluable service in deciphering inscriptions, and the result has been the total displacement of the old notion regarding the remote antiquity of the monuments themselves.

It has been indisputably ascertained that they are all of comparatively recent date. The Rosetta Stone itself is no older than 190 years B. C., and bears on it the well-known names of "Ptolemy and Berenice, the Saviour gods." It ascribes divine honors to Ptolemy, and praises him for various acts of liberality and wisdom in the earlier years of his reign.

An obelisk which has been brought from Philæ to England, contained, like the Rosetta Stone, an inscription in hieroglyphics and in Greek; about the latter there was no difficulty, and the hieroglyphic section has been found to be its counterpart—"a supplication of the priests of Isis, residing at Philæ, to King Ptolemy, to Cleopatra his sister, and Cleopatra his wife." The inscription brings the date of the obelisk near to the time of Christ, and the oldest remains in Philæ are supposed to be only about 390 B. C.

The large hieroglyphic tablet of Abydos—"the Doomsday Book of Egyptian chronology," gives a genealogical list of the immediate predecessors of Rameses the Great, the Sesostris of Herodotus, who ascended the throne as late as 1473 B. C.

Much has been written regarding the temples of Karnac and their inscriptions; but we have at present to do merely with the dates of their erection—we have to

question them only as to the past. The oldest remains discovered have been connected with the period of Osirtesen I., about 1750 B. C., near the time of Joseph; while the principal obelisks and the avenue of the sphinxes are attributed to the kings who reigned about 1380 B. C.

Luxor—rendered in the hieroglyphic language, *the palaces*—represents in its ruins, buildings originally of surpassing grandeur. It was connected by avenues with Karnac, and the date of its palaces has been proved by inscriptions to be that of Pharaoh Amenophis III., who reigned about 1430 B. C.

These brief notices afford no more than a glimpse of inscriptions appearing everywhere amid ruins, which, in their extent and magnificence, are the wonder of the world. We must refer to works on the subject for details as to “the services of Aahmes-Penneben at the beginning of the eighteenth dynasty; the Eilethyian inscription recording the wars against the Hykshos; the tablet of Karnac containing the annals of Thothmes III.; the treaty between Rameses II. and the Khita; the records of making tanks or wells for miners at the gold washings; the records of the star risings in the tomb of Rameses V. ;”\* and others of various dates, till the time of Cambyses and Darius Hystapes. Enough has been stated for our argument, that the monuments were raised within the period determined for the oldest pyramid. As the origin of these ancient ruins seemed to be lost in a mysterious and dateless past, the urgency with which infidel archæologists and historians demanded that the Christian

\* “Egyptian Hieroglyphs,” by S. Birch, p. 270.

student should yield the books of Moses as a worthless fable, was not unnatural; but faith and patience have been rewarded by a triumphant settlement of the question as to all the old monuments coming easily within the Bible record.

A careful examination of many papyrus-rolls has educed similar results. When they refer to historical events, it is to such as are noticed on the monuments; and while some contain genealogies of kings or revenues of temples, and some give details of the foreign conquests of the ancient kings of Egypt, others are filled with repetitions of the funeral ritual or prayer for the dead. One or two illustrations or specimens must suffice. In the *Papyrus* No 36, of the Royal Museum at Turin, it is written: "In the 36th year, on the 18th of the month Athyr, of the reign of the sovereigns *Ptolemy* and *Cleopatra* his sister, the children of Ptolemy and Cleopatra, gods Epiphanes;" and this is followed by a contract for the sale of the profits of certain religious offerings. In another papyrus fragment in the same Museum, there is a list of fifty-four kings in the order of their succession till the twelfth dynasty. In one of the papyri, there is a metrical account of the campaign of Rameses II. against the Khita, written in the tenth year of his reign; and in another, "a series of communications relating to certain transactions in Egypt in the reign of Apepi, as a shepherd king; and Tanaaken, a king of the seventeenth dynasty, relative to a political and religious controversy."\*

\* For a list of papyrus records, see "Egyptian Hieroglyphs," by S. Birch, pp. 276, 279.

Some papyrus-rolls, which were originally supposed to have been written at a very early period in Egyptian history, have been assigned by modern critics a very recent age. We may mention, for instance, the Ritual for the Dead, which was at one time regarded as extremely old, but is now considered to be only of the age of the Ptolemies, or even later. A translation of this long funeral papyrus is given by Bunsen, in 146 chapters, to which those may turn who desire to study one of those strange documents which shed light on olden religious experiences and aspirations.\*

Of the *Demotic* writing, or that once common dialect which, in Egypt, superseded the sacred language, it is almost unnecessary to give any account. Although not introduced until the time of the Psammetici, about 664 years before the Christian era, it passed away about the middle of the third century after Christ, having had a course of rather more than 900 years, and strangely enough, it is now less known than that by which it was immediately preceded, and its comparative recency renders its testimonies regarding the earliest ages of Egyptian history of little value.

Out of those materials to which reference has been made, the lists of kings on the monuments and in the papyrus rolls, with the historical arrangements and comments of the historians, Manetho and Eratosthenes, systems of chronology have been constructed by such distinguished scholars as Bunsen, Böeckh, and Rodier; but the evidence is inadequate, and their conclusions have

\* "Egypt's Place in Universal History," vol. 5, pp. 161, 333.

therefore been unsatisfactory. As it is impossible to say, in many instances, what kings were contemporary, and when they represent successive dynasties, no dependence can be placed even on such systems as have been most carefully elaborated.

BUNSEN, in his great work, "Egypt's Place in Universal History," in giving a "Synopsis of the Four Ages of the World," claims for the First Age from 20000 to 10000 B. C.; and for the Second, from 10000 to 2878 B. C.: and he enters into details regarding the republican period, the succession of sacerdotal and hereditary kings, and the formation of language. BOECKH is singularly exact with his chronological system; its first period, beginning July 20, 30522 B. C., reaches down to July 20, 5703 B. C.; and thereafter we have historic times. RODIER makes definite history begin 24000 B. C.; but he assumes a previous long indefinite history, in which the dates cannot be determined. After the year 24000 B. C., the dates of great events, as he supposes, can be "rigorously verified."

Let any one take the pains to master in detail these systems of chronology, and he will find he has engaged in a most profitless task. The chronologists do not agree among themselves. Who is to be preferred? Whom are we to follow? Bunsen has said of Boeckh, "We believe that no Egyptologist has ever ventured upon so many and such bold alterations in the dates of Manetho as Böeckh was obliged to propose, in order to make good his assumption that Manetho's chronology was an artificial system of applying cyclical numbers to Egyptian histo-

ry.”\* And Bunsen’s own method has been severely yet justly handled, by no less an authority than Sir G. C. Lewis. After referring to Sesostris as the great name of Egyptian antiquity, and as dwarfing into insignificance the builders of the Pyramids, he adds, “Nevertheless, his historical identity is not proof against the dissolving and recompounding processes of the Egyptological method. Bunsen distributes him into portions, and identifies each portion with a different king. Sesostris, as we have stated, stands in Manetho’s list as third king of the twelfth dynasty, at 3320 B. C. ; and a notice is appended to his name, clearly identifying him with the Sesostris of Herodotus. Bunsen first takes a portion of him, and identifies it with Tosorthrus, (written Sesorthrus by Eusebius,) the second king of the third dynasty, whose date is 5119 B. C., being a difference, in the dates, of seventeen hundred and ninety-nine years, about the same interval as between Augustus Cæsar and Napoleon. He then takes another portion, and identifies it with Sesonchosis, a king of the twelfth dynasty ; a third portion of Sesostris is finally assigned to himself. It seems that these three fragments make up the entire Sesostris.”†

In making this quotation regarding Bunsen’s system of Egyptian chronology, we are not to be held as undervaluing his wonderful scholarship, nor the noble service which he has rendered to Philosophy and Christianity ; but when we have wandered with Egyptologists

\* “Egypt’s Place in Universal History,” vol. 5., p. 119.

† “Survey of the Astronomy of the Ancients,” by Sir G. C. Lewis, p. 369.

through centuries and millenniums, and have in vain sought for some solid resting-place in historical evidence, when we have struggled to obtain some gleams of light in the midst of an obscurity which is never broken by the best efforts of our guides, we heartily say "Amen" to Sir G. C. Lewis' conclusion: "Egyptology has a historical method of its own. It recognizes none of the ordinary rules of evidence; the extent of its demands upon our credulity is almost unbounded. Even the writers on ancient Italian ethnology are modest and tame in their hypotheses, compared with the Egyptologists. Under their potent logic all identity disappears; everything is subject to become anything but itself. Successive dynasties become contemporary dynasties; one king becomes another king, or several other kings, or a fraction of another king; one name becomes another name; one number becomes another number; one place becomes another place."\*

The only subject remaining to be noticed as having given rise to much discussion, are the sculptured figures which represent the negro head and features. As they appear on some of the earliest monuments, it has been assumed either that there were originally distinct races of men, or that there was a greatly longer period than had hitherto been supposed between the Flood and the first evidences of Egyptian civilization. We have already considered the alleged diversity of origin for the human race,† and have shown the doctrine to be not only theo-

\* "Historical Survey of the Astronomy of the Ancients," p. 363.

† Chapter 8.

retically unnecessary, but unsupported by facts, and we have advocated the opinion that a much longer period *did* elapse between the Flood and the visit of Abraham to Egypt than the ordinary systems of chronology have allowed. But accepting even the period given in the Septuagint, and taking into account the rapid changes which are produced in the human color and countenance in such a climate as that prevailing in parts of Africa, no special difficulties exist about the facts represented on the olden monuments. Whatever reluctance may be felt in accepting the changes within that briefer period, may be removed by the probability of a longer time having run its course than the common chronology has allowed.

It is obviously a flagrant violation of those principles which regulate the advance of nations, to suppose that six or seven thousand years were necessary to give the degree of civilization which is assumed for the start of the first dynasty under the first king Menes. We do not require precision or definiteness regarding the exact number of centuries which passed between the Flood and the entrance of Abraham into Egypt; but it is of importance to ascertain definitely the harmony of the facts which are recorded in Scripture, and referred to in other histories. In this harmony alone consists the strength of the historical argument.

Christian apologists have shown unnecessary anxiety as to exactness in dates. The admitted elasticity or differences in Bible chronology, should make us willing to grant a liberal margin. What specially concerns us is

the *harmony of histories*. While exact dates are in their own place most valuable, they are not to supersede the cumulative evidence which the recognized harmony of profane with sacred history is bringing to the side of the Christian apologists. No one can recall the perpetually recurring depreciation of the Bible through the greater part of the last half century, on the plea that its historical statements were either mythical, or, when valid, had been written out after other histories had been published, without deep thankfulness for the striking vindication of all its statements which contemporary histories have of late been giving.

To the positive evidence for the truth of Scripture, which has been in many instances unexpectedly adduced through historical and philological investigations, we shall next direct attention as fully as is consistent with our present aim.

## CHAPTER XIII.

## THE BIBLE A LIGHT AMONG ANCIENT RECORDS—EGYPTIAN, CHALDÆAN, AND ASSYRIAN TESTIMONIES TO THE TRUTH OF THE SCRIPTURES.

The oldest and most authentic record of the primeval state of the world is unquestionably the Scripture history; and though the origin of its early inhabitants is only traced in a general and comprehensive manner, we have sufficient data for conjecture on some interesting points.—  
SIR J. G. WILKINSON.

THE Bible unfolds the oldest history in the world. No other comes within sight of its earliest records. The Pentateuch was written by Moses a thousand years before Herodotus recited his history at the public games of Greece and the boy Thucydides wept lest he might fail in future rivalry, and more than twelve hundred years before the two Egyptian writers, Manetho and Eratosthenes, endeavored to explain the revolutions of their country. Ctesias and Berosus, the one thirty and the other a hundred and fifty years later than Herodotus, followed him with their somewhat conflicting accounts of Chaldæan and Assyrian struggles and triumphs. The earliest Greek historian was thus the contemporary of Ezra and Nehemiah; and, long before Manetho had arranged the details of Egyptian dynasties, the prophet Malachi had closed the Old Testament record. The historical distance between Moses and the earliest profane

writers is so great as to be distinctly visible, and therefore indisputable.

The references in the Bible to Egypt and other ancient monarchies, although often merely incidental, are yet so minute, and at times so comprehensive, that, if erroneous, nothing should be easier than to expose their inaccuracy; and there can be, perhaps, on the other hand, no more convincing argument for the historical reliableness of the Bible than that which is dependent on the ascertained correctness of its allusions to those other nations with which the Israelites were, in the earliest ages, more or less closely associated.

The ancient testimonies which monuments and written documents have most opportunely supplied within the present century, indeed, in a large measure, within the present generation, have not only demolished all the old reasoning against the Bible, but have so vindicated its historical trustworthiness, that "Moses and the Prophets" are now left in undisturbed possession of the watch-towers from which, many centuries ago, they spoke to the Israelites, and through them to the whole world. The very first historical sections of the Bible, so long held in contempt, have of late not only attracted the attention of the greatest scholars, but have won their homage. No unbiased student will now dare to scoff at the tenth chapter of Genesis, and pronounce it meaningless.

Although Max Müller has claimed for the Vedas of India a like antiquity with the writings of Moses, he admits that they are not history;\* and neither he, with all

\* "Chips from a German Workshop," vol. 1, p. 5.

his enthusiasm on their behalf, nor any one else, will now assign to them an ethnological value at all comparable with that of the Pentateuch. In the oldest histories there is nothing that approaches in universality and explicitness the tenth and eleventh chapters of Genesis. To the tenth chapter, as an ethnological table, scholars of opposite religious tendencies have united in paying homage. "It is as essential to an understanding of the Bible," says Professor T. Lewis, "and of history in general, as is Homer's Catalogue in the Second Book of the 'Iliad' to a true knowledge of the Homeric poems and the Homeric times."\* The light which it sheds on the origin and subsequent relations of tribes and nations, has not only continued undimmed by distance, but is becoming brighter as accurate investigation is gradually removing the haze of prejudice or apathy by which it has been long encircled.

In the genealogy which it outlines there is nothing mythical, nor is there anything which is specially flattering to the Israelites. There is no national vanity displayed, nor is there the least indication of what might have been in part expected, a decided preference for the Shemitic race. No special preëminence is assigned them in a history which is remarkable for its mingling of minute references with comprehensive outlines. In closely examining the tenth chapter, we find such diversity of history as precludes exact classification, but its general statements are beginning to admit of comparatively easy historical exposition. While, for example, in some of the

\* "Lange's Commentary on Genesis," p. 352.

lists of the descendants of Noah, the record ends with the second generation, in others it extends to the third or fourth generation; and while in some instances the founder only without the tribe is named, in others the tribe without the founder is given, and in others it is difficult to say whether the founder or the tribe is meant; but through all that is yet inexplicable, there are minute historical references of so much importance as to command the attention of ethnologists. In the study of the earliest monarchies—the Egyptian, the Chaldæan, and the Assyrian—historians thankfully turn to the Book which was long scoffed at by those who plumed themselves on their varied scholarship. It sheds so much light on the first movements of different peoples, and on the foundation of empires, that it cannot be repudiated without injury to historical science.

In immediate connection with the origin of nations, the sacred historian has placed the confusion of tongues at the building of the Tower of Babel; and in thus accounting for the diversity of languages, the Bible deals at the very outset with a remarkable subject which does not seem, for many ages, to have awakened, in Greece or elsewhere, the least interest or attention. In the simplicity of the Bible narrative is its strength. There is no date for the building of the tower. Generally viewed, it stands as the boundary between the unity of the primitive world and the conflicting movements of diverse tribes in subsequent ages. It explains what otherwise would have remained inexplicable—a manifold diversity of language, with a singular unity of apparently original

structure. The moral cause of the dispersion has been thus stated: "The unity which had hitherto bound together the human family was the community of one God, and of one divine worship. This unity did not satisfy them; inwardly they had already lost it; and therefore it was that they strove for another. There is therefore an ungodly unity which they sought to reach through such self-invented, sensual, outward means; while the very thing they feared, they predicted as their punishment."\* Their purpose was defeated by the confusion of their tongues, or rather by the sudden use of three languages instead of one. The introduction of three tongues or languages would cause such confusion as would put an end to the undertaking. It would have been inconsistent with the method of the Divine government, so far as we can judge, to introduce a multitude of dialects, and make each man unintelligible to his companion; and it appears from the record itself that the confusion was orderly or regulated, for we are told anticipatively in the tenth chapter, that the descendants of Japheth, of Ham, and of Shem, were divided "after their families, after their tongues, in their lands, after their nations." Of each of the three, successively, is the same account given. Gen. 10:5, 20, 31, 32. Is it not very significant to find the descendants of Japheth, Ham, and Shem, separately described as peopling the earth "after their families and after *their tongues*"? From these families, it would seem, have all the languages in the world been gradually evolved; and is it not perfectly

\* "Delitzsch," p. 310. "Lange's Commentary," p. 353.

consistent with this Bible statement to find eminent philologists of all ranks concurring in the conclusion, that the languages and dialects of the world are reducible to *three* distinct families or groups—the Aryan, the Semitic, and Turanian? “Comparative Philology,” says Bunsen, “would have been compelled to set forth as a postulate the supposition of some such division of languages in Asia, especially on the ground of the relation of the Egyptian language to the Shemitic, even if the Bible had not assured us of the truth of this great historical event. It is truly wonderful—it is matter of astonishment: it is more than a mere astounding fact, that something so purely historical, and yet divinely fixed—something so conformable to reason, and yet not to be conceived of as a mere natural development—is here related to us out of the oldest primeval period; and which now, for the first time, through the new science of philology, has become capable of being historically and philosophically explained.”

The tenth and eleventh chapters cannot be separated without lessening their light. They are both singular in their delineation of secrets, which would otherwise have been for ever hidden—their historical statements, though at first flowing separately, afterwards so far merge into each other as to become mutually illustrative.

In their combination they shed light, for example, on those statements which long perplexed Bible students regarding the origin of the Chaldæan Empire, and they have dispelled a delusion which scholars persisted in maintaining against the direct teaching of the Bible. In

this tenth chapter—"the most authentic record that we possess for the affiliation of nations,"\* "the Book of the generations of the sons of Noah"—it is said, "The sons of Ham were Cush, and Mizraim, and Phut, and Canaan. . . . And Cush begat Nimrod. . . . And the beginning of his kingdom was Babel, and Erech, and Accad, and Calneh, in the land of Shinar." What is here noteworthy is, that while Mizraim, one of the sons of Ham, went to Egypt and gave to the country its name, and Phut inhabited Central Africa, and Canaan peopled Palestine, the *Babylonian* line is directly connected with them. They are all Cushite by blood. "It is," says Professor Rawlinson, "the simplest and the best interpretation of this passage, to understand it as asserting that the four races—the Egyptians, Ethiopians, Libyans, and Canaanites—were ethnically connected, being *all descended from Ham*; and further, that the *primitive people of Babylon* were a subdivision of one of these races—namely, of the Cushite or Ethiopians, connected in some degree with the Canaanites, Egyptians, and Libyans, but still more closely with the people which dwelt upon the Upper Nile."†

This idea of an *Asiatic* Cush or Ethiopia, was scouted by scholars of the greatest name, as created by the imagination of interpreters, and as "the child of their despair."‡ They limited the Biblical Cush to Egypt alone;

\* "Journal of the Asiatic Society," vol. 15, p. 230.

† "The Five Great Monarchies of the Ancient Eastern World," by George Rawlinson, M. A. Vol. I, p. 64.

‡ Bunsen's "Philosophy of Universal History," vol I, p. 191.

but this was done at the expense of Bible history; for nothing can be more direct than the descent from Noah of Ham, *Cush*, and *Nimrod*; and nothing can be clearer than the declaration that Nimrod "began to be a mighty one in the earth . . . and the beginning of his kingdom was Babel." This is the beginning of the Chaldæan monarchy; but is not its origin Hamitic, and also Egyptian—for Ham begat Mizraim, and Mizraim in Egypt begat Cush, and Cush this Nimrod, who must have moved eastward to found an Ethiopian empire in Asia? There can be no escape from these plain historical issues represented in the Scriptures, and the question is, What support have they, if any, from other sources? Until very recently, the evidence was not forthcoming, and Christian interpreters were satisfied by giving Egypt to the descendants of Ham, and assigning them a subordinate national place as the "servant of servants." By an easy or superficial reading of Scripture, the general inference was accepted that no great *Asiatic* empire could possibly be connected with the descendants of Ham, because of the supposed extent of their prophetic doom; but the fact that such an empire did exist has been established in harmony both with Bible statements and the principles of prophetic interpretation, by a series of very strong, if not, indeed, indisputable proofs. As a very general outline of the evidence is all that can be given here, we refer for a fuller discussion of the subject to Professor Rawlinson's invaluable work, "The Five Great Monarchies of the Ancient Eastern World."\*

\* Vol. I, chapter 3, pp. 47-60.

I. By classical and other traditions, *Ethiopians* have been described as dwelling on the Persian Gulf, and as being associated, at the same time, with the inhabitants of the Nile Valley.\* Without attaching much importance to Homer's early statement by itself, regarding the Ethiopians as "*divided*," and dwelling "at the ends of the earth towards the setting and the *rising* sun,"† on account of the conflicting criticism to which it has been subjected; it must be conceded that it has much weight when connected with Strabo's reference to the Ethiopians having been understood, according to the "*old opinion*" of the Greeks, to occupy the south coast of both Asia and Africa, and to be divided by the Persian Gulf into two branches, the Asiatic and African. This reference is all the more important, because taken from Ephorus, and because regarded by Strabo himself as indicative only of the ignorance of the Greeks.

Again, tradition connects Memnon, king of Ethiopia, on the one hand, with the founding of Susa in Asia, and with the leadership of combined Susianans and Ethiopians for the assistance of Priam in Troy; and, on the other hand, with the Ethiopians on the Nile, under the Egyptian name of King Amunoph III., whose statue became known as "the Vocal Memnon." There were palaces called "Memnonia" both in Egypt and Susa, and the supposition that Memnon built them is very plausible. As Professor Rawlinson observes, "Memnon thus unites the Eastern and Western Ethiopians; and the less we regard him as an historical personage, the more

\* Homer's "Odyssey," I, 23, 24.

† Ibid.

must we view him as personifying the ethnic identity of the two races.”\*

Other traditions show that the Greeks had, at one time, an unquestioning belief in an Asiatic Ethiopia; and whatever allusions have been made to the subject by the earliest historians, have confirmed that belief. Hesiod, Herodotus, and Eusebius have been cited as witnesses to the same prevailing ideas; but there were others besides the Greeks—as, for instance, the Armenians—who cherished similar traditions; and although these widespread convictions varied, and, considered separately, may seem to have little weight, yet, when associated, they constitute valid proof that, in accordance with Scripture, the Chaldæans were originally Hamites, not Shemites—Ethiopians, not Aramæans.

2. As the evidence from tradition, which we have placed in the foreground, was long almost balanced by conflicting statements from other sources, scholars were much divided in opinion; but the question has been conclusively settled in favor of the Bible, by unexpected proofs from another quarter. By the results of research in languages, what some thought was only apparently established by concurrent traditions, has been placed altogether beyond dispute. After the explorations in Assyrian mounds had yielded to the student of history many precious documents, with ample evidence of a later well-defined Babylonian language, the smaller and less attractive mounds of “Chaldæa Proper” were carefully searched; and, to the surprise and delight of every phi-

\* “The Five Great Monarchies of the Ancient World,” vol. 1, pp. 59, 60.

lologist, there turned up the remains of another form of language, differing from that which the Assyrian mounds had previously revealed, and showing closer relations to the older language of Susiana, whose early inhabitants tradition had described as Hamitic. Its vocabulary, according to Sir H. Rawlinson, "is decidedly Cushite or Ethiopian," and the modern languages to which it makes the nearest approaches are those of Southern Arabia and Abyssinia. The old traditions have thus been confirmed by comparative philology, and both are side-lights to Scripture." A Chaldæan or Babylonian kingdom existed long before another empire was founded by the descendants of Shem, and thus "An Eastern Ethiopia, instead of being the invention of bewildered ignorance, is proved to be a reality, which, henceforth, it will be the extreme of skepticism to question; and the primitive race which bore sway in Chaldæa proper is demonstrated to have belonged to this ethnic type."\*

The very earliest historical announcements in Scripture, after having been long twisted out of their natural course by Christian as well as by other interpreters, have at last not only been freed from perversion, but have received the most signal acknowledgments of their perfect accuracy. The brief, yet definite, Bible intimations regarding the origin and the relations of the Egyptian, Chaldæan, and Assyrian empires, have not only had no parallel in any other history, but they have become the key to open what would otherwise have been for ever hidden or obscure.

\* "Ancient Monarchies," vol. 1, p. 65.

In passing over some of the more general intimations in the tenth chapter of Genesis—as, for instance, those referring to Shem, Elam, Eber, and Asshur—we omit much that is valuable in evidence, that we may have the opportunity of more fully noticing those broader statements on which comparatively recent discoveries have shed much light.

Our first view of Egypt is obtained when ABRAHAM, who had been living a patriarchal chief in Palestine, was constrained by famine to seek support in Egypt for both himself and his household. And we find that, even in that early age, there was a king PHARAOH; that Egypt had a settled government, with “princes” who acted as the king’s subordinates; and that the country was rich enough in agricultural resources to provide assistance to neighboring tribes in the time of famine. That these facts are in harmony with profane history no one can doubt, who remembers that, even then, some of the great Pyramids were in existence as witnesses indirectly confirming the Bible reference to a comparatively advanced civilization.

A remarkable historical sketch of the capture of Lot, Abraham’s nephew, and of his rescue from the hands of Cherdorlaomer, king of Elam, although assisted by his five vassal kings, reveals the rise of a new or Elamitic power, which was displacing the old Babylonian or Hamitic kingdom; and of the overthrow or breaking up of this early kingdom, decided indications have been given in documents recently disinterred from the mounds of Mesopotamia. In them, incursions and plunderings have

been recorded, which were the evident forerunners of greater distresses and of ultimate ruin, and the recovery of tablets is expected, which will determine the date of Abraham's contest with Chedorlaomer, and, consequently, of his visit to Egypt; and to such recovery Bible students look not with anxiety, but with the most hopeful interest. About two hundred years after the time of Abraham, the history of JOSEPH brings Egypt under review, with a pictorial vividness which has its parallel in no other record for at least more than a thousand years. When we combine the scattered references in the later chapters of Genesis, they represent a remarkably compact organization. The light falls on no strictly primitive people, nor barbarous customs, but on a very highly civilized community, skilled in agriculture, social in habit, and accomplished in various branches of art. The monarchy which we noted in Abraham's time continues, and the king still bears the title of Pharaoh. He is absolute, or nearly so, committing men to prison, and releasing them; or, if he please, ordering their executions, appointing officers over the whole land, and taxing it apparently at his pleasure; raising a foreigner suddenly to the second position in the kingdom, and requiring all, without exception, to render him obedience. "At the same time, the king has counsellors, or ministers, elders of his house, and others whose advice he asks, and without whose sanction he does not seem to act in important matters." He had a body-guard under "a captain," a "chief confectioner," a "chief cup-bearer." He rides in a chariot, and all pay him homage. There

are distinct classes of soldiers, priests, physicians, sacred scribes, magicians, and herdsmen. As betokening the stage of civilization which had been reached, there is mention made of fine linen, golden chains, silver drinking-cups, wagons, chariots, embalming, and coffins. In addition to these glimpses, we have it stated that they carried burdens on the head; that they sat at meat, and did not recline, as was the common custom in the East; and that "every shepherd was an abomination unto the Egyptians." Gen. chaps. 37-47. All these peculiarities are fully represented in the monuments, but especially is the last made prominent. Sir J. G. Wilkinson tells us that the artists delighted on all occasions in representing the shepherds as "dirty and unshaven;" and that, on the tombs near the Pyramids of Geezeh, they are "caricatured as a deformed and unseemly race."\*

A fuller and minuter series of facts will be found in a most instructive little volume by Professor Rawlinson, who adds: "It may be broadly stated that, in this entire description, there is not a single fraction which is not in harmony with what we know of the Egypt of this remote period from other sources. Nay, more, almost every point in it is confirmed, either by the classical writers, by the monuments, or by both."†

In the Book of Exodus there is a very remarkable history, some of the details of which have received striking confirmation in monuments, and by profane writers. They afford unmistakable indications of the departure of

\* "Ancient Egyptians, vol 2, p. 16.

† "Historical Illustrations of the Old Testament," pp. 41, 42.

the Israelites. There are passages in the writings of Manetho and Chæremon, Egyptian priests of high scholarship, which, though somewhat confused and contradictory, are yet so specific as to the names of Moses and Joseph, and, in some instances, so minute as to facts, that the following conclusions may be held established: (1) That there was a tradition of an Exodus from Egypt of persons whom they regarded as unclean; (2) that they connected this Exodus with the names of Joseph and Moses; and (3) that they made Canaan their country, and placed the event in the reign of Amenophis, son of Rameses, about the year B. C. 1400.\*

The indirect testimonies to the historical truth of Exodus as dependent on the usages of Egypt, are, in some respects, more valuable than the more positive statements which have been adduced. Among these, there is mention made of brick-making without straw, under taskmasters, who made the lives of the Israelites bitter with hard bondage; of the use of papyrus for boats, furnaces, kneading-troughs, hand-mills; of the use of chariots in war; of the king leading his horses to battle; of the king and his princes fighting from chariots; of the king hearing complaints in person; in short, the allusions to public, social, and domestic modes of life in that early period are so numerous in Scripture, and have been found to be so literally exact, that the reasoning of rationalists, on the plea that they were all mythical, has been generally abandoned; and we might at once proceed to another section in this field of inquiry, were it not that it may be of ad-

\* "Historical Illustrations," pp. 59, 61.

vantage to some Bible students to notice two or three of the more prominent facts which rise, distinct and columnar, in the parallel lines of sacred and secular records.

1. From three to four hundred years after the Exodus, Egypt in the West, and the other kingdoms in the East, had little or no direct intercourse with the Israelites, who were under the necessity, during that long period, of struggling with the Ammonites, Moabites, Amorites, Canaanites, and Philistines, races whose literature, if they had any, has been lost. Egypt and Assyria, during the same period, had great military resources ; but, as is evident from their records, they had undertaken no expeditions which brought them into contact with the territory of the Israelites. They therefore say nothing regarding them, and this silence is in accord with the absence, in the Israelitish history, of all reference to either Egypt or Assyria. This is itself a most important incidental proof of the historical reliableness of Scripture.

2. After the Exodus, the first and most outstanding fact is the grandeur of SOLOMON'S reign, and the extent of his dominion, as it ranged from the Mediterranean sea to the Euphrates. Under David the kingdom was greatly extended, but by Solomon it was consolidated and adorned. Between two hitherto powerful and menacing monarchies, the Hebrew kingdom rose rapidly in splendor, and for more than half a century dazzled them both into dimness. To those accustomed to study only the slow growth of Western nations, that period may seem short in the history of empires ; but in the East, such a

sudden outcome of imperial power and splendor was not uncommon. While admitting this, it seems almost incredible that this comparatively weak and insignificant kingdom should have attained such supremacy; and it can only be accounted for on the supposition that the two great monarchies on each side of Solomon's dominions had been weakened by internal troubles or by foreign aggression, or had sunk into that national effeminacy which luxury almost invariably creates. Had either Assyria or Egypt been as powerful as formerly, the Judæan triumphs in David's reign, and the peaceful grandeur of Solomon's sway would not have been possible. The greatness of the Hebrew kingdom, therefore, presupposes corresponding weakness in both Egypt and Assyria; and it was so. Evidence has been obtained from the monuments of both countries, which clearly proves that, at the very time when the Israelitish power was in the ascendant, they were both under a cloud and enfeebled. For nearly two centuries their historians are silent, and the very names of their monarchs remain unknown. Egypt began to wane about 1200 B. C., and Assyria about 1100 B. C.; but about 990 B. C. they had largely recovered their lost position. It was throughout this period the triumphs of the Hebrew monarchy were gradually achieved; they fit exactly into its circumstances; and through the Assyrian and Egyptian gloom which hovered on both sides of Palestine, the student of history can easily discern the splendor of Solomon's reign. In the arts and architecture of that Hebrew kingdom, he can see the image, or rather the repetition,

of all that was best in Egyptian and Assyrian models. The ruins of Nineveh and Palestine are mutually illustrative, and they explain the magnificent edifices with which Solomon adorned Jerusalem. He gathered from the East and the West all that was imposing in outline, as well as all that was intricate or delicate in art; and reproduced them in felicitous combinations. The works in which he excelled could only have been accomplished in times of peace, and when access was easy to those great buildings which were hallowed by antiquity, and enriched by all that was attractive to what at that period was "Modern taste." The feebleness of Assyria and Egypt accounts for their comparative obscurity, and not only for the general extension of the Hebrew dominions, but for the possibility of his carrying on and completing, in presence of naturally jealous monarchs, those great works which are thus described in the Bible: "And it came to pass, at the end of twenty years, wherein Solomon had built the house of the Lord and his own house, that the cities which Hiram had restored to Solomon, Solomon built them, and caused the children of Israel to dwell there. . . And he built Tadmor in the wilderness, and all the store-cities which he built in Hamath. Also, he built Beth-horon the upper, and Beth-horon the nether, fenced cities with walls, gates, and bars; and Baalath, and all the store-cities that Solomon had, and all the chariot-cities, and the cities of the horsemen, and all that Solomon desired to build in Jerusalem, and in Lebanon, and throughout all the land of his dominion." 2 Chron. 8: 1-6.

The ruins of Tadmor—or Palmyra, as Alexander the Great named it—are to this day “the wonder” of travelers in the East; and as this city was within about twenty miles of the Euphrates, it is evident that Assyria had lost its jealousy or its strength, for otherwise Solomon could not have found there opportunity and scope for such a magnificent architectural enterprise. Judging from the facts recorded in the Bible, the student of history was led to infer that both Assyria and Egypt were at that time weak, and this opinion has received abundant confirmation from such records as these two countries have of late supplied.

3. Towards the close of Solomon’s reign, Egypt began to revive under the vigorous administration of SHISHAK, the “Sheshonk” of the hieroglyphics and the Sesonchis of Manetho. Jeroboam having fallen under the suspicion and displeasure of Solomon, fled to him for protection. “Solomon sought, therefore, to kill Jeroboam; and Jeroboam arose, and fled into Egypt, unto Shishak king of Egypt, and was in Egypt until the death of Solomon.” 1 Kings 11:40. After Solomon’s death, when Rehoboam, his son, was running his career of despotism and folly, Shishak, as the Bible has told us, “came up against Jerusalem, with 12,000 chariots, 60,000 horsemen, and people without number.” The date is very distinctly given, “And it came to pass, that, in the fifth year of king Rehoboam, Shishak king of Egypt came up against Jerusalem, because they had transgressed against the Lord. . . . And he took the fenced cities which pertained to Judah, and came to Jerusalem. . . . So

Shishak king of Egypt came up against Jerusalem, and took away the treasures of the house of the Lord, and the treasures of the king's house ; he took all : he carried away also the shields of gold which Solomon had made." 2 Chronicles 12:2, 4, 9.

Two things are here worthy of special notice, the first is, that in this distinct statement as to time, we have the first fixed point which historians can use for the establishment of chronological data ; and the second is, that this portion of Bible history has received the fullest confirmation, by its narrative having been reproduced, with wonderful exactness, in the only memorial of Shishak's invasion which is known to be in existence. It was found in one of the courts of the great palace of Karnac at Thebes. In the inscription there is a hieroglyph, which Champollion has thus translated : " Pharaoh, governor of Lower Egypt, approved of the sun, the beloved of Amoun—Sheshonk" (Shishak).

A Jewish figure is represented, as part of Shishak's triumphal procession, with a tablet on his breast, and a hieroglyph which has been thus rendered, "Ioudah Malek," *i. e.*, King of Judah. That itself is a very decided testimony to the truth of Scripture from an unexpected quarter, and it is still further borne out in the inscriptions connected with the same history, in which there are represented the chiefs of more than thirty nations ; and the names in the list of the "fenced cities" taken by Shishak have their counterpart in a number of the cities of Judah. It is true that, in the list of Shishak's captive cities, there are some which might be supposed to

be favorable to Jeroboam, as their territory is that of the Ten Tribes, and they should of course, have had Shishak's protection ; but the fact is only an additional proof of Scripture history, for in the territory of the Ten Tribes there were those, chiefly among the Levites, who favored Rehoboam, and resisted Shishak's *protégé*. It is evident that Shishak had passed into the territory of the Ten Tribes, and had discriminatively punished those towns and "suburbs" of which the Levites might be said to have possession. Their preference for Rehoboam is thus noticed in 2 Chronicles 11:13, 14: "And the priests and the Levites that were in all Israel resorted to him [Rehoboam] out of all their coasts ; for *the Levites left their suburbs and their possession*, and came to Judah and Jerusalem ; for Jeroboam and his sons had cast them off from executing the priest's office unto the Lord." This inscription, which has at last yielded up all its truth, has, by its minute record of the cities taken, incidentally confirmed the brief history of Shishak's movements as it has been given in the Bible.

Without further following this twofold record of the Egyptian connection with Palestine, we may notice the recent very singular evidences of the truth of Bible history which have attracted the attention of the civilized world, through the discovery (1) of the cities of Bashan and (2) of the MOABITE STONE.

1. Few can have read the following verses in Deuteronomy without wonder, or without the notion that a mistake had occurred in transcribing the numbers: "So the Lord our God delivered into our hands Og also, the

king of Bashan, and all his people ; and we smote him, until none was left to him remaining. And we took all his cities at that time ; there was not a city which we took not from them, threescore cities, all the region of Argob, the kingdom of Og in Bashan. All these cities were fenced with high walls, gates, and bars ; beside un-walled towns a great many." Deut. 3:3-5. "*Sixty cities ! !*" "Fenced, and with high walls !" "Impossible, it surely means six, or at most sixteen. It is almost inconceivable to have sixty cities within the bounds of so small a territory !" Such, doubtless, have been the thoughts, if not the expressions, of many humble yet earnest readers of the Bible. "Often, when reading the passage," says Dr. Porter, in his fascinating work, "I used to think that some strange statistical mystery hung over it, for how could a province measuring not more than thirty miles by twenty, support such a number of fortified cities, especially when the greater part of it was a wilderness of rocks? But mysterious, incredible as this seemed, *on the spot*, with my own eyes, *I have seen* that it is literally true. The cities are there to this day. Some of them retain the ancient names recorded in the Bible. The boundaries of Argob are as clearly defined by the hand of nature as those of our own island home. These ancient cities of Bashan contain, probably, the very oldest specimens of architecture now existing in the world."\* Although some have doubted the antiquity of these buildings, the evidence is in favor of Dr. Porter's con-

\* "The Giant Cities of Bashan and Syria's Holy Places," by the Rev. J. M. Porter, M. A. 1869. pp. 13, 14.

clusions ; but apart from the question of age, the crowding together of so many cities, which seemed impossible, has been established as a fact, and it therefore nullifies the reasoning of the skeptic.

Although within comparatively easy reach of European travellers, Bashan was till lately comparatively unknown, and Christians read of it in the Bible with half listless wonder. Although not named in the New Testament, its scenes are inwrought with its history. "It was down the western slopes of Bashan's high table-land that the demons, expelled by Jesus from the poor man, chased the herd of swine into the sea of Galilee. It was on the grassy slopes of Bashan's hills that the multitudes were twice miraculously fed by the merciful Saviour. And that 'high mountain' to which he led Peter, and James, and John, and on whose summit they beheld the glories of the transfiguration, was that very Hermon which forms the boundary of Bashan."\* It is strange that desolation so complete as that by which the cities of Bashan have been overwhelmed, should have been so long concealed. The "poet prophets" of Israel have described the stateliness of its oaks, the magnificence of its scenery, the luxuriance of its pastures, the fertility of its plains, and the qualities of its flocks and herds ; and modern travellers have confirmed to the letter the accuracy of their glowing delineations.

While the varied aspects of Bashan's landscapes continue in the main unchanged, its cities are deserted, and

\* "The Giant Cities of Bashan and Syria's Holy Places," by the Rev. J. M. Porter, M. A. 1869. p. 16.

the stillness of death pervades them. While the ancient cities and villages of western Palestine, with a few exceptions, have been so destroyed, that not one stone remains above another, and in some instances their very site is *unknown*, and while Jerusalem itself has lost its ancient architectural grandeur, "the state of Bashan is totally different; it is literally crowded with towns and large villages; and though the vast majority of them are deserted, *they are not ruined*. . . . Many of the houses in the ancient cities of Bashan are perfect, as if only finished yesterday. The walls are sound, the roofs unbroken, the doors and even the window-shutters in their places." It is astonishing to learn that, in some of these ancient cities, from two to five hundred houses have been found *perfect*, but without a solitary inhabitant. From the battlements of the Castle of Salcah, Dr. Porter counted no fewer than *thirty* towns and villages dotting the vast plain, many of them perfect as when first built, and "yet, for more than five centuries, there has not been an inhabitant in one of them."

All that has been recently discovered has completely established the descriptions in the writings of Moses and the prophets. To the very letter their statements have been vindicated by architectural remains, which are without a parallel. In how many instances, in all parts of the world, have cities been founded, have flourished, been demolished, rebuilt, and a second time swept off, so that their very site is forgotten and lost? And how has Bashan escaped? Why are the cities, their walls, and their houses still perfect, their stone roofs unmoved, and

their stone doors hanging on their hinges? Why are the streets tenantless and silent as a city of the dead? The purposes of God in all this we cannot know; but may we not believe it to be at least probable that, in his providence, they have been preserved as witnesses to the truth of this portion of his blessed Word, when skepticism and infidelity are casting discredit on its statements regarding this strange giant people and their crowding cities?

2. After the kingdom of Israel had been convulsed by successive revolutions, and disgraced by the assassination of two of its kings, "All Israel made Omri, the captain of the host, king over Israel." 1 Kings 16:16. No sooner did he gain the throne than he began to rule with an unrelenting hand, until he at last succeeded in so consolidating his kingdom, with Samaria as its capital, that he won the respect of neighboring monarchs, and Assyrian records bear testimony to the homage paid him. To these records we can only allude, as our object is, in the meantime, to fix attention on that strange witness to the truth of Scripture, whose voice in the solitudes of Moab unexpectedly aroused the scholarship, the skepticism, and the Christianity of the world. The circumstances in which the discovery of the "Moabite Stone," on the site of the ancient Dibon, was first made, are too generally known to require here a detailed account. The Rev. Mr. Klein, a Prussian, employed by the Church Missionary Society, first saw it, when it was unbroken; but no sooner did the Arabs observe the peculiar interest which was taken in it, than, jealous of the interference of the Franks and Turks, they broke it, and concealed its

fragments. By the judicious and persevering efforts of Captain Warren, R. E., the agent of the Palestine Exploration Fund, the fragments have been recovered. The inscription is in the Phœnician character, and the language itself is scarcely distinguishable from the Hebrew. The translation which has been published represents the contest of the Moabites with Omri, and their ultimate triumph. Between Israel and Moab, according to the Scriptures, there was a perpetual struggle during the thirty-four years' successive reigns of Omri and his son Ahab; and to this the inscription very clearly refers. Moab had for a long period the worst of it, 2 Kings 3:4-27, and 2 Chron. 20, and paid heavy tribute to Omri and Ahab; but Mesha put an end to it. The Bible thus speaks of the oppressive tax paid: "And Mesha king of Moab was a sheep-master, and rendered unto the king of Israel 100,000 lambs and 100,000 rams, with the wool. But it came to pass, when Ahab was dead, that the king of Moab rebelled against the king of Israel." 2 Kings 3:4, 5.

It is perhaps unnecessary to quote more than the following sentences in the inscription: "I, Mesha, son of Jabin, king of Moab. My father reigned over Moab thirty years, and I reigned after my father. I erected this altar unto Chemosh, who granted me victory over my enemies, the *people of Omri, king of Israel*, who, together with his son, [*Ahab*] oppressed Moab a long period—even forty years. For though Chemosh was angry against the land, during my reign he was favorable to Moab, as well as to the Temple, which Israel had con-

tinually wasted. The men of Gad dwelt in the district of Kiriathaim from olden times, and there the *king of Israel built* a fortress for himself, which Chemosh bade me go and take from him. Then I went in the middle of the night, and fought against Israel from break of day until noon, and slew all the people in the town, to the delight of Chemosh, the god of Moab. I took from them all the sacred vessels of Jehovah, and offered them to Chemosh, my god, instead.”\*

The reference to *Chemosh*, the national deity of Moab, is quite in harmony with the Bible allusion to Chemosh as the *abomination of Moab*, 1 Kings 11:7; and the whole inscription betokens the long subjection of Moab, and the final triumph of the Moabites. For sixty-five years, there is in the Bible no further notice of the Moabites—not until after Elisha’s death, when, as we are told, “the bands of the Moabites invaded the land at the coming in of the year.” 2 Kings 13:20. The silence of Scripture on this subject is itself an acknowledgment of the Moabitish success and independence. The inscription further gives an account of Mesha’s triumph, and of his reorganizing and strengthening his long-oppressed and sorely-wasted kingdom. This testimony is altogether singular, and cannot be set aside or modified by any possible ingenuity of mere criticism.

After this period, the historical illustrations of Scripture are so numerous, that only a few can be noticed; but these, taken in connection with the evidence which

\* See “Recovery of Jerusalem,” p. 496; and Dr. Ginsburg’s Essay on “The Moabite Stone.”

has been already adduced, constitute an insuperable barrier to that destructive criticism in which rationalists have long taken great delight.

Without dwelling on the intermingling evidence from the Bible and Assyrian records regarding the general condition of Syria, and the leagues of contending tribes, a difficulty may be noticed which has been created through the introduction in the Bible history of the name of the Assyrian monarch "PUL," who is not acknowledged in any one of the Assyrian records of that period. He is described in 2 Kings 15 : 19, and 1 Chron. 5 : 26, as having compelled Menahem, king of Israel, to pay him a thousand talents, being the condition of withdrawing his troops from his territory, and as having been historically associated with "Tiglath-pileser," in carrying the Jews into captivity, "even the Reubenites, and the Gadites, and the half tribe of Manasseh." While it is interesting to observe that this is the first notice of Assyria in the Bible since the time of Nimrod, and that Pul is the first Assyrian invader of the Jewish territory, it is necessary to inquire how it is that, while Tiglath-pileser is named in the Assyrian records, Pul is not.

Although the Assyrian annals, so far as discovery has yet reached, do not recognize Pul as one of their kings, he is distinctly named by Berosus, the earliest and most reliable historian to whom appeal can be made, as reigning at this time—not, however, as an "Assyrian," but as a *Chaldæan* monarch.\* As he reigned at Babylon, and

\* It is interesting to learn that despatches have been found which were written by an Assyrian officer who bore that name, and that one of his let-

not at Nineveh, he is not acknowledged to be an Assyrian ruler. But why, it may be asked, did the Bible historians not correctly designate him "King of Babylon"? Professor Rawlinson has fully considered this anomaly in his "Ancient Monarchies," and has more briefly stated, in his recent little work, "Historical Illustrations," what appears to be the true solution of the difficulty. The Jews, after the rise of the Assyrian empire, did not minutely discriminate between what was strictly *Assyrian* and what was the older, or *Chaldæan* authority. Besides, there was evidently much imperial confusion at this time; it is clearly shown by the annals that the Assyrian empire was temporarily disorganized; some of the provinces had broken off from the royal sway in Nineveh; and as the monarchs there may have held the reins of government with a slack hand, a bold and ambitious Babylonian prince, like Pul, supported by some of the revolted Assyrian provinces, and ruling over that part of Assyria which was nearest to them, would naturally enough be regarded and spoken of by the Jews as an *Assyrian* king. "He was a Chaldæan who, in the troublous times that fell upon Assyria about B. C. 763-760, obtained the dominion over Western Mesopotamia; and who, invading Syria from the quarter whence the Assyrian armies were wont to come, and being at the head of Assyrian troops, appeared as much an Assyrian monarch as the princes that held their court at Nineveh."\* The

ters is in the new collection. Probably they were written before he ascended the throne. See "Assyrian Discoveries," by George Smith, p. 448. Edition, 1875.

\* "Historical Illustrations," pp. 122, 124.

designation of Pul as king of Assyria, although he may have been only a pretender, is not only intelligible, but, when taken in connection with the fact that Pul, according to Berosus, *did* reign as king of Chaldæa exactly at this time, is one of those indirect or incidental testimonies to the truth of Scripture which every one accepts.

TIGLATH-PILESER is closely associated with Pul, and the records of his life interweave with those of the Bible regarding Azariah and Ahaz, Menahem, Pekah, and Hoshea. When Azariah was king of Judah, Pekah was king of Israel; and "In the days of Pekah king of Israel, came Tiglath-pileser, king of Assyria, and took Ijon, and Abel-beth-maachah, and Janoah, and Kedesh, and Hazor, and Gilead, and Galilee, all the land of Naphtali, and *carried them captive to Assyria.*" 2 Kings 15: 29.

Soon after this war, another followed which lasted for several years. Damascus and Samaria, with their kings Pekah and Rezin, uniting, declared war against Ahaz, who in his turn applied to Tiglath-pileser, and pleaded for help against the kings of Syria and Israel. "And Ahaz took the silver and gold that was found in the house of the Lord, and in the treasures of the king's house, and sent it for a present to the king of Assyria. And the king of Assyria hearkened unto him: for the king of Assyria went up against Damascus, and took it, and carried the people of it captive to Kir, and slew Rezin." 2 Kings 16: 7-9.

This, in the end, proved disastrous policy on the part of Ahaz, for it not only closed the history of Syria as a

separate kingdom after it had extended through ten generations, but it led to the commencement of the captivity, and stimulated the desire of the Assyrian king to obtain more of that gold which the weakness of the Jewish monarch had exposed to view. Although Ahaz went to Damascus to congratulate Tiglath-pileser on his success, and adopted the plan of an idolatrous altar, which had pleased him, he afterwards had the mortification of finding himself left unaided in the struggle to recover the places which had been taken, during this war, by the Philistines and the Edomites. "And Tiglath-pileser king of Assyria came unto him, and distressed him, but strengthened him not." 2 Chron. 28:20. Ahaz abandoned principle, and was enfeebled by policy; he went from one depth of infamy to another in idolatrous methods, and when he died he was not brought "into the sepulchres of the kings of Israel." There is a notice of the defeat and death of Rezin in one of the inscriptions now in the British Museum,\* and Tiglath-pileser himself records the fact, that previously, in the fifth year of his reign, he had defeated a great army under Azariah, king of Judah. There are references, also, in recently interpreted tablets to the siege of Damascus, the conquest of the Philistines, the death of Pekah, and the accession of Hoshea, which are of the greatest interest as confirming the very details of Bible history.

To the Bible alone are we indebted for a distinct account of the movements of SHALMANESER,† as successor

\* "Ancient Monarchies," vol. 2, p. 132; second edition.

† The Shalmaneser of Scripture is Shalmaneser II. of Assyrian his-

of Tiglath-pileser. The annals of his kingdom were all destroyed by the usurper who followed him; but satisfactory evidence from other sources has been forthcoming to show that his reign fits into the place which the Bible assigns him. From both the Phœnicians and the Greeks, we learn that Shalmaneser not only did reign in Assyria, but that he contended with the Phœnicians both by land and sea; in short, that he overran the whole of Phœnicia, with the exception of Insular Tyre, which he besieged for no less than five years. For this information we are indebted to Menander of Ephesus,\* and in the minute exactness of its references to Shalmaneser we have a fresh proof of the historical value of the Bible.

The blank which occurs in the Assyrian annals has been filled up by such direct announcements in Scripture as the following: "Against him [Hoshea] came up Shalmaneser, king of Assyria; and Hoshea became his servant, and gave him presents. And the king of Assyria found conspiracy in Hoshea: for he had sent messengers to So, king of Egypt, and brought no present to the king of Assyria, as *he had done* year by year; therefore the king of Assyria shut him up, and bound him in prison. Then the king of Assyria came up throughout all the land, and went up to Samaria, and besieged it three years. In the ninth year of Hoshea, the king of Assyria took Samaria, and carried Israel away into Assyria, and tory, B. C. 860. Shalmaneser I., king of Assyria, B. C. 1300, built a palace in Nineveh, and made that city the seat of government. Smith's "Assyrian Discoveries," pp. 72, 91.

\* Menand., Eph. ap. Joseph. *Ant.*, Ind., 9, 14. See "Ancient Monarchies," vol. 2, p. 405.

placed them in Halah, and in Habor by the river of Gozan, and in the cities of the Medes." 2 Kings 17:3-6.

In the course of the three years' siege, there were evidently stirring scenes in the Assyrian empire. A new power was at work behind Shalmaneser's besieging army, and in some way it became connected with it before Samaria; for in the next chapter, at the ninth verse, it is said, "And it came to pass in the fourth year of king Hezekiah, which was the seventh year of Hoshea, son of Elah, king of Israel, that Shalmaneser, king of Assyria, came up against Samaria, and besieged it. And at the end of three years THEY took it." . . . Let it be observed that it is not HE (Shalmaneser) took it; which would have been the most natural expression, and most in accordance with the style of the narrative. It is also worthy of remark that, in the sixth verse of the preceding chapter, when Hoshea is named, and when we should have expected with similar directness the name Shalmaneser, it is dropped, and "The king of Assyria" is substituted. It is clear that some disturbing force had come suddenly into the midst of Shalmaneser's movements; but *how?* or *whence?* none could answer. It does not appear from the historical books that any king reigned between Shalmaneser and Sennacherib. In the twentieth chapter of Isaiah there is a formal reference to SARGON, as having spread terror and desolation far and wide in Syria and in Egypt; but as the name occurs nowhere else in Scripture, critics were divided in their conclusions; while some held Sargon to be the same as Shalmaneser, others held him to be identical with Sennache-

rib, and others with Esar-haddon. For two thousand five hundred years, Isaiah's mention of Sargon remained inexplicable; but the mystery has been at last removed, and the historical delineation by the prophet Isaiah has been proved to be literally accurate. Sargon, as a usurper, had taken advantage of Shalmaneser's absence at the siege of Samaria, and having gained successes with his army, he came up to Samaria, and the result was, as stated above, "they took it;" hence the next announcement, that the king of Assyria, implying Sargon, whose name or position may not have been very clearly understood by the historian at the time, took Samaria; and having carried Israel captive, placed the prisoners in Halah and Habor, and "in the cities of the Medes."

There can be no hesitation now in admitting both the accuracy of Isaiah's statements, and the scrupulous attention to facts shown by the historian of 2 Kings, for the name of Sargon is found on the Assyrian monuments, and the fullest accounts of his reign are given. As he was the supplanter, not the lawful successor, of Shalmaneser, he naturally attempted to blot his name altogether out of the Assyrian annals, and he so far accomplished his object that for a considerable time no trace of Shalmaneser's reign could be found. But recently interpreted sculpture and inscriptions have assigned him his rightful place in Assyrian records, showing his relation to Jehu of the Bible, and fixing the very year when he received tribute from him, and they also refer to the additions which he made to his father's works at the palace and the temple of Nineveh

Through the labors of M. Botta, it has been placed beyond dispute that Sargon was the builder of the palace of Khorsabad, and in its ruins full details of his reign are given. He had seized and annexed to Assyria some of the towns of Media, and hence the minute reference in Scripture to what, in such circumstances, would be most natural—his sending Hebrew captives “*to the cities of the Medes.*” Although the inscription which contained an account of his campaign against Samaria has been almost completely destroyed, there is another which has been well preserved, in which it is stated that he carried 27,280 Israelites into captivity “from Samaria and the several districts or provincial towns dependent on that city,”\* and there is some evidence of his having compelled the kings of Egypt to pay him tribute.†

It is agreeably surprising to find a minute reference to a comparatively insignificant fact in a great campaign, like that made by Isaiah to the taking of Ashdod by Sargon, fully confirmed by the Assyrian records. The description by Isaiah, in the twentieth chapter, of the approaching humiliation of the Egyptians and the shame of those who put their trust in “their glory,” is strikingly verified by Sargon’s account of his campaign against Ashdod. In his annals, Egypt is described “as a weak power, always stirring up revolts against Assyria,” yet unable to help the revolters when attacked. Egypt was then truly a “broken reed,” and “trust in the shadow of Egypt was confusion.”‡ There can be little doubt that

\* Layard’s “Nineveh and Babylon,” p. 618.

† Ibid., p. 620.

‡ See “Assyrian Discoveries—Inscriptions of Sargon,” pp. 288-294.

the description in the tenth chapter of Isaiah has reference to Sargon as having been the conqueror of *Carchemish* as well of Samaria, and evidence is adduced from an inscription found at Nineveh, in which, among other things, it is said, "The mighty king Sargon waged war against the wicked, and having overcome Pisiri, king of Syria, placed a governor in the city of Carchemish."

SENNACHERIB, it is admitted, was Sargon's successor, and there is a remarkable correspondence between the account in the Bible and the recently discovered Assyrian annals. Of the outset of his movements, it is said in the Bible: "Now, in the fourteenth year of king Hezekiah, did Sennacherib king of Assyria come up against all the fenced cities of Judah, and took them. And Hezekiah king of Judah sent to the king of Assyria to Lachish, saying, I have offended; return from me: that which thou puttest on me will I bear. And the king of Assyria appointed unto Hezekiah king of Judah three hundred talents of silver, and thirty talents of gold. And Hezekiah gave him all the silver that was found in the house of the Lord, and in the treasures of the king's house." 2 Kings 18:13-15. In the inscriptions which have been translated, the Bible references to "*all the fenced cities of Judah*," and to the *thirty* talents of gold, have their counterpart. The following statement by Sennacherib thoroughly coalesces with that of the Bible: "Because Hezekiah king of Judah would not submit to my yoke, I came up against him, and by force of arms, and by the might of my power, I took forty-six of his *strong fenced cities*; and of the smaller towns which were

scattered about, I took and plundered a countless number ; and from their places I captured and carried off as spoil 200,150 people, old and young, male and female, together with horses and mares, asses and camels, oxen and sheep, a countless multitude. And Hezekiah himself I shut up in Jerusalem, like a bird in a cage, building towers round the city to hem him in, and raising banks of earth against the gates to prevent escape. . . . Then, upon this Hezekiah there fell the fear of the power of my arms, and he sent out to me the chiefs and the elders of Jerusalem with *thirty* talents of gold, and eight hundred talents of silver, and divers treasures—a rich and immense booty. . . . All these things were brought to me at Nineveh, the seat of my government, Hezekiah having sent them *by way of tribute*, and as a token of submission to my power.”\*

The *eight* hundred talents as against the *three* hundred specified in the Bible include, obviously, *all* the silver which was obtained at first from every source, while the three hundred constituted the annual tribute. Is not the coincidence of these two descriptions very remarkable? The agreement of the Bible statement with the annals is still more striking when the passages in Isaiah are collated with those of the historical books. Of the above passage there is a slightly different translation by Dr. Hincks, in Layard’s “Nineveh and Babylon,” but substantially the agreement is such that the two may be held as one.†

\* “Ancient Monarchies,” vol. 3, pp. 161, 162.

† Layard’s “Nineveh and Babylon,” pp. 143, 144.

Sennacherib undertook a second expedition to Jerusalem, and it would seem that in both he occupied Lachish, 2 Kings 23 : 14, 17 ; 19 : 3 ; Isa. 29 : 1-8 ; 24, and in either the one or the other a serious resistance to his arms was made, but in vain. Sennacherib triumphed, and in his annals there is an inscription confirmatory of his attack on Lachish, as it is stated in the Bible : "After this did Sennacherib king of Assyria send his servants to Jerusalem, (but he himself laid siege against Lachish, and all his power with him,) unto Hezekiah king of Judah, and unto all Judah, that were at Jerusalem," &c.\* 2 Chron. 32 : 9. In the Assyrian annals it is said, "Sennacherib, the mighty king, king of the country of Assyria, sitting on the throne of judgment, before the city Lachish, (Lakkisha,) I gave permission for its slaughter."\*

In his expedition directed chiefly against Egypt, he was disastrously unsuccessful. He bent his arms towards Jerusalem, and "was purposed to fight against" it, but Hezekiah made most vigorous preparations for its defence. In the nineteenth chapter of 2 Kings, there is an almost matchless description of the arrogance, the pride, and the blasphemies of the Assyrian king and his representatives, which led to the profound heart-pleadings of Hezekiah with the God of Israel ; and all this is followed by Isaiah's defiant scorn, and his prophetic denunciations of the Assyrian king and his hosts. "Therefore thus saith the Lord concerning the king of Assyria, He shall not come into this city, nor shoot an arrow there, nor

\* Layard's "Nineveh and Babylon," p. 152.

come before it with shield, nor cast a bank against it. By the way that he came, by the same shall he return, and shall not come into this city, saith the Lord. . . . And it came to pass that night, that the angel of the Lord went out, and smote in the camp of the Assyrians a hundred fourscore and five thousand: and when they arose early in the morning, behold, they were all dead corpses. So Sennacherib king of Assyria departed, and went and returned, and dwelt at Nineveh. And it came to pass, as he was worshipping in the house of Nisroch, his god, that Adrammelech and Sharezer, his sons, smote him with the sword, . . . and Esar-haddon, his son, reigned in his stead." To the very letter in every particular has this striking statement been confirmed.

How sudden and complete this overthrow of Sennacherib, when success seemed certain! His plans were laid with skill, and prosecuted with energy. As Sethos, one of the native princes, was near with his army, Sennacherib had resolved to crush him before the great Ethiopian monarch, Tirhakah, could unite forces with him. But this terrible disaster overwhelmed his army and humbled his pride. The Egyptians ascribed his overthrow to the power of their own gods and added to his humiliation by harassing his straggling forces as they fled.

The Assyrian annals, as was the practice, take no notice of this fearful calamity; but the Egyptian historians record the disaster: they account for it in their own way, and the priests informed Herodotus that Sethos erected a monument in commemoration of the event,

which they pointed out to him. It was the statue of a man, and bore the inscription, "Look on me, and learn to reverence the gods."

The Bible historians, of course, did not regard it as within their scope to record the subsequent wars and triumphs of Sennacherib. From other sources we hear of the conquests which he made ; and it is interesting to observe that, with all his recruited energies, he did not renew his attack on Jerusalem or Egypt ; he accepted the terrible warning which the Lord God of Israel had given him, and turned his energies to other achievements. The Bible relates, however, his sad and inglorious end by the hand of his own sons ; and, in so far as historical evidence goes, this account of his death has been confirmed.

ESAR-HADDON, the son of Sennacherib, was his successor, 2 Kings 19 : 37, and carried on several extensive campaigns but in only one important particular does his history touch the Bible record. He was the contemporary of Manasseh, king of Judah ; and being displeased with his disaffection or revolt, he sent the captains of his host, who took Manasseh "among the thorns, and bound him with fetters, and carried him to Babylon." 2 Chron. 33 : 11. Treated severely, his affliction led him to penitence, to humbling himself before God, and subsequently to his restoral to his throne by Esar-haddon, on condition of subjection.

Esar-haddon, it is to be borne in mind, was the first of the Assyrian line who was king of Babylon as well as of Assyria. Sargon took the title of both, but Esar-

haddon had built there a palace for himself, in which, no doubt, he would sometimes reside.\* It is to *Babylon* he was brought, and not to Nineveh, as was the custom. This is the first Assyrian king with whom such a destination for any prisoner was possible. Is it not very singular to find that Manasseh is said to have been brought to *Babylon*, and can any degree of exactness more completely testify to the truth of the Bible? As soon as the king is resident in *Babylon*, the Bible tells us that *thither* the captive was brought.

That Manasseh was made his prisoner cannot be doubted; the annals of Esar-haddon attest the fact. In the inscription bearing on the capture of prisoners, it is said: "I count among the prisoners of my reign twelve kings of the Hittites, who dwelt beyond the mountains—Bahlon, king of Tyre, *Manasseh, king of Judea*, together with the kings of the Isles of the Mediterranean Sea."† A more explicit statement cannot be desired.

In some of the new texts discovered by Mr. Smith, there are references to Esar-haddon's wars with Tirhakah, king of Ethiopia and Egypt, and with the Tyrians who had joined him, which fit in with Isaiah's statement regarding Tirhakah. Esar-haddon, who was one of the most powerful of the Assyrian monarchs, prosecuted against Ethiopia and Egypt the war in which his father had been engaged, and which the terrible calamity that befell his army before Jerusalem compelled him to aban-

\* "Ancient Monarchies," vol. 2, p. 196; Second Edition.

† "Revue Archéologique," 1864. Quoted by the Rev. B. R. Savile in "The Truth of the Bible," p. 289.

don. These new inscriptions shed light on this hitherto obscure part of Bible history.

As it would occupy greatly more space than the limits of this work admit, to follow closely the series of incidental testimonies which the prophetic writings contain, a few brief notices may suffice to complete this general argument.

While the children of Israel were pining in captivity by "Babel's streams," and had apparently closed their history, they are not only preserved by God as a separate people, but distinguished by the steady light which the character of Daniel sheds on them. Though in captivity, they are brought to the foreground, and their history rises in importance above that even of their conquerors. NEBUCHADNEZZAR, king of Babylon, is made all the more conspicuous by his relations to the prophet DANIEL and to this people. The mutual relations of Daniel and Nebuchadnezzar are so well known, that it is needless to refer to them minutely; but there are several coincidences which are too striking to be omitted. Nebuchadnezzar contributed so much to the extension and adornment of the city, that, naturally, as recorded in Scripture, "he walked in the palace of the kingdom of Babylon," and said, "Is not this great Babylon that I have built for the house of the kingdom by the might of my power, and for the honor of my majesty?" In the clear "Standard Inscription of Nebuchadnezzar," his account of what *he* did is in every sense only an amplification of the above brief announcement: "The double enclosure which Nabopolassar, my father, had made, but not com-

pleted, *I* finished. . . . The great double wall of Babylon *I* finished. . . . *I* strengthened the city. . . . Across the river to the west *I* built the wall of Babylon with brick. . . . The reservoir of Babylon, by the grace of Merodach, *I* filled completely full of water. . . . *I* made the way of *Nana*, the protectress of her votaries. . . . These gates *I* raised. . . . For the delight of mankind, *I* filled the reservoir. Behold! besides the *Ingur-Bel*, the impregnable fortification of Babylon, *I* constructed inside Babylon, on the eastern side of the river, a fortification such as no king had ever made before me, viz., a long rampart, 4,000 *ammas* square, as an extra defence. *I* excavated the ditch; with brick and mortar *I* bound its bed; a long rampart at its head *I* strongly built. *I* adorned its gates. The folding doors and pillars *I* plated with copper,"\* and so on. Can any historical light more vividly reveal the accuracy of the photograph of Nebuchadnezzar as it is set in the Book of Daniel?

Sir Henry Rawlinson has borne important testimony to the reality of Nebuchadnezzar's influence and his extensive improvements, when he said, "I have examined the bricks in *situ*, belonging, perhaps, to a hundred towns and cities in the neighborhood of Bagdad, and I have never yet found any other legend than that of Nebuchadnezzar, son of Nabopolassar, king of Babylon."

In the same inscription there is a passage in which it is believed there is an allusion to the calamity which Daniel has described as befalling Nebuchadnezzar, when he was driven from the haunts of men until "seven

\* "Ancient Monarchies," vol. 3, p. 524; second edition.

times" should pass over him, and he should acknowledge God; but as difference of opinion has, of late, been shown regarding it, we shall quote the passage merely as Sir Henry Rawlinson rendered it, in the hope that his translation may yet be fully verified, and that the remark of Professor Rawlinson in his "Bampton Lectures" may be vindicated, that "the whole range of cuneiform literature presents no similar instance of a king putting on record his own inaction," notwithstanding his having withheld this conclusion as now doubtful, in both his "Ancient Monarchies" and his "Historical Illustrations of the Old Testament." "For four years . . . the seat of my kingdom in the city, which . . . did not rejoice my heart. In all my dominions I did not build a high place of power; the precious treasures of my kingdom I did not lay up. In Babylon, buildings for myself and for the honor of my kingdom I did not lay out. In the worship of Merodach, my lord, the joy of my heart, in Babylon, the city of his sovereignty and the seat of my empire, I did not sing his praises, I did not furnish his altars with victims, nor did I clear out the canals."

The blanks at the beginning represent words which have baffled the deciphering skill of Sir Henry, but obviously, if its meaning has been rightly apprehended, the whole passage exhibits a complete revolution in the life of Nebuchadnezzar, and is in striking contrast with the energetic action exhibited in the first part of the inscription, which we quoted.

The "seven times," mentioned by Daniel, does not necessarily mean seven years, and accordingly an expla-

nation to the following effect has been offered. It was common in Persia and Chaldæa to divide the year into *two* seasons only, summer and winter, and thus we have three and a half solar years, which would, in the main, correspond with the *seven* times, or three and a half years. But as critical difficulties, in the meantime, lie in the way of accepting this view of the inscription, we do not press it, because it is most undesirable where there is so much that is thoroughly definite, to weaken our argument by introducing what is doubtful. We give the opponents of the Bible the benefit of the doubt, and we merely submit the probable rendering of the passage, because it is not inappropriate to evidence from other sources bearing on the same great fact of Nebuchadnezzar's temporary seclusion. The reign of a queen is placed in this period by some historians, and it is not in the least improbable that she conducted public affairs while Nebuchadnezzar was temporarily unfit to take any interest in them. It is also distinctly intimated that he "fell into a state of infirm health" some time before his decease; and Professor Rawlinson has quoted from Abydenus a remarkable passage,\* containing an account of the last words and the death of Nebuchadnezzar, which he regards as of importance in connecting the commencement of Nebuchadnezzar's malady, not only with the roof of the palace, as it is implied in Daniel 4:29, but with his disappearance from among men, and with such prophetic power as was mysteriously imparted to him, according to the account by Daniel.

\* "Historical Illustrations," pp. 168, 169.

In the Scripture narrative of the sudden destruction of the Babylonian kingdom, there were two minute statements against which rationalistic writers long urged strong objections, and on which they rested demands for the rejection of the book of Daniel as "full of historical errors;" and the result reminds us of what has often happened in supposed contradictions of the Bible by perverted facts in natural science. The first statement, which was sneered at as erroneous, is that which describes Belshazzar as king of Babylon; and the second, is that which intimates that Daniel was to receive the reward of being made *third* instead of second in the kingdom, in accordance with custom.

The objections pressed against Daniel's statement that Belshazzar was king, had apparently such weight, that Bible students were long greatly perplexed. Some of the ancient historians, as Herodotus and Berosus, to whose opinions deserved deference has always been paid, have stated that not Belshazzar, but Nabonnedus,\* (or Labynetus,) was king of Babylon when it was taken by the Medo-Persians—that this Nabonnedus was not in the city of Babylon when it was overthrown—that he was not slain—that he was taken prisoner in a contest outside the city, and was generously treated by Cyrus. To meet these statements, there was no answer beyond that which faith in the accuracy of the Bible suggested. But a most interesting discovery of clay cylinders by Mr. Taylor, when he was making excavations in Ur of the Chaldees under the superintendence of Sir H. Rawlin-

\* Or Nabonidus, or Nabonadius.

son, has put an end to the cavils of the skeptic and the difficulties of the Christian. The cylinders bear inscriptions which Sir Henry, to his delight, has found to contain an account of the reign of this very Nabonnedus, a discovery of the utmost importance for the illustration of Scripture. "The most important facts, however, which they disclose," says Sir Henry, in a most instructive letter in the "Athenæum," "are that the eldest son of Nabonnedus was named Bel-shar-azar, and that he was admitted by his father to a share in the government. This name is undoubtedly the Belshazzar of Daniel, and thus furnishes a key to the explanation of that great historical problem which has hitherto defied solution. We can now understand how Belshazzar, as *joint king* with his father, may have been governor of Babylon when the city was attacked by the combined forces of the Medes and Persians, and may have perished in the assault which followed ; while Nabonnedus, leading a force to the relief of the place, was defeated and obliged to take refuge in the neighboring town of Borsippa, (or Birs-i-Nimrud,) capitulating after a short resistance, and being subsequently assigned, according to Berosus, an honorable retirement in Carmania. By the discovery, indeed, of the name Bel-shar-azar, as appertaining to the son of Nabonnedus, we are for the first time enabled to reconcile authentic history (such as it is related by Herodotus and Berosus, and not as we find it in the romances of Xenophon or the fables of Ctesias) with the inspired record of Daniel, one of the bulwarks of our religion."\*

\* "Athenæum," 1854, p. 341.

In further sketching the memorials of the latter kings, Sir Henry says that of "Nabonnedus they were finding relics in all quarters." "The walls of Babylon on the river face, erected by this king, were completely exposed during a late fall of the river, and the bricks of which the wall was composed were found to be uniformly stamped with *his* name and titles." The evidence of the father's reign and influence is complete, and the incidental testimony to Belshazzar being co-regent, in addition to the direct statement by the father in his annals, is such that it cannot be set aside. A co-regency was not uncommon; Nabopolassar shared his government with his son Nebuchadnezzar, Xerxes with his son Artaxerxes, and Augustus with Tiberius.

We thus find that there were two kings, father and son, associated in the rule of the kingdom; that Nabonnedus was not *in* the city, but in its neighborhood defending it, while Belshazzar was within the city, as Daniel has written, and that he perished in its ruins.

This record has not only removed the difficulty as to Nabonnedus being king and not Belshazzar, but it has disposed of the objections which have been raised in reference to Daniel having been assigned the *third* place instead of the *second*. Belshazzar offered the *third* place to any interpreter of the handwriting on the wall, because he could not offer the *second*, for the very reason which has at last been ascertained through the discovered inscription, that he was himself *second*, his father Nabonnedus being first. Is not this another striking testimony to the exactness of the sacred record? That which was

long a stumbling-block to ignorance, has, in the light of recent discoveries, proved a source of strength to the Bible student, and it carries with it an emphatic warning against hasty conclusions unfavorable to the Word of God. The seeming historical inaccuracies in Daniel, of which some German critics have complained so loudly, have been turned into an impregnable defence of its claims to a reliableness which, in even minute details, no other ancient history can profess and establish.

When we move along the line of Jewish history after the time of Daniel, we have Ezra, Nehemiah, and Esther, detailing events which extend over rather more than a hundred years beyond the return from the Babylonish captivity. A new empire spreads out before us. Cyrus, Ahasuerus, Artaxerxes, Darius, Artaxerxes, pass in succession through changes which have an important bearing on the destiny of Jews. Not only in the general but in the minuter statements of both the sacred and the secular historians of this period, are there very striking coincidences; and those illustrious rulers to whom we have referred have, in their histories, touched Jewish interests in so many points, that, for rationalists, nothing should be easier than the detection and exposure of errors, if any did exist; but in this their failure has been complete, and they have been forced to accept, in many instances, as *true* what they once denounced or ridiculed as *false*.

Some difficulties remain, but they are comparatively insignificant, and the preponderance of exactly corresponding records is such as to render the historical argument unanswerable. Testimonies have been unex-

pectedly forthcoming to vindicate the Scriptures along the whole line of their history, whenever and wherever serious doubts have been raised and assaults made.

From the earliest announcements regarding the Deluge,\* Noah and his sons, and Abraham in Ur of the Chaldees or in Egypt, down through every vicissitude to the very close of the Old Testament history, fuller light is being shed on every other record when it comes into contact with the Bible; and much that would have otherwise remained obscure, has thus been made definite and intelligible. To the general historian, the Bible is proving of priceless value; and some of those who have most indulged in sneers at seeming inaccuracies, have been constrained to confess their error, and to pay to its authority a not ungenerous homage.

In the rapid progress of archæological discoveries in the East, there is everything to warrant the anticipation of Sir Henry Rawlinson, that scholars will soon be able so to classify both the Chaldæan and Assyrian kings, and so to spread out their annals, that "they shall have an historical tableau of Western Asia, ascending to the twentieth century B. C., or anterior to the exodus of Abraham from Chaldæa, far more determinate and continuous than has been obtained for the sister kingdom,"†

\* See "Assyrian Discoveries," chapter 10, "Flood Series of Legends," pp. 165-222. "It appears," Mr. Smith says, "that at that remote age the Babylonians had a tradition of a flood which was a divine punishment for the wickedness of the world; and of a holy man who built an ark and escaped the destruction; who was afterwards translated, and dwelt with the gods." These and similar coincidences in the records are in some respects very remarkable.

† "Athenæum," 1854, p. 343.

Egypt. The recent successful labors of Mr. G. Smith add interest and emphasis to this expectation ; and is it not marvellous to find the Bible, in its earliest and in its latest historical intimations, shining with increasing splendor as archæologists and historians translate conjecture into fact, and displace myths by universally acknowledged realities ?

## CHAPTER XIV.

BIBLE HISTORY IN RELATION TO PROPHECY—THE EVIDENCE  
OF PROPHECY—THE IDEA OF THE SUPERNATURAL IN-  
SEPARABLE FROM IT.

History is the occasion of prophecy, but not its measure ; for prophecy rises above history, borne aloft by its wings, which carry it far beyond the present, and which it derives, not from the past occurrences of which history takes cognizance, but from Him to whom the future and the past are alike known. It is the communication of so much of His own supernatural light, as he sees fit to let down upon the dark movements of history, to show whither they are going.—PRINCIPAL FAIRBAIRN.

ALTHOUGH we have hitherto examined the Bible and other ancient histories in precisely the same way, we cannot leave them as if no marked differences appeared. Our work is but half finished. No one can carefully study the Bible for its historical information alone, without discovering that its History has at times assumed an entirely distinctive character. It anticipates the future. Prophecy becomes history, as the mystery of prediction passes into the light of fulfilment. History records prophecies before their accomplishment ; traces the progress of events ; and, at last, separates such as have been indisputably fulfilled from those which have not. Prophecy and history thus act and react on each other ; they are inseparable ; they blend as lights.

## I. BIBLE HISTORY IN RELATION TO PROPHECY.

While prophecy embraces two departments, the moral or doctrinal and the predictive, it is with the latter we have at present to do chiefly, and with *that* only in its specially distinctive character. Some exalt the one and depreciate the other; but both have their value. Comprehensively, prophecy includes all those truths, or secrets, which men could not, in the circumstances of their age, ascertain by their own unaided energies. It was the privilege of those who were appointed by the Great Revealer, to proclaim them, whether the truths unfolded had reference to the past, the present, or the future, or to all combined; and, be the form or substance what it may, it was still a revelation. If we even restrict our view of prophecy to the moral alone, as fundamental, we discover so much that is distinctive, that the Bible cannot be classed with other histories. The laws of God, his dominion, his providence, his majesty, his holiness, justice, and mercy; man's obligation of obedience to him, and his duties to his fellow-men, are all set forth with a vividness and an authoritativeness which are elsewhere unequalled. So thickly are the pages of prophecy strewn with the original principles of morality and religion,\* that no unprejudiced student can fail to be arrested by them.

And if we adopt the view in which prophecy is regarded as merely predictive of events which could not possibly have been foreknown by any science or wisdom

\* "Davidson on Prophecy," p. 28. 1870.

of man, but which must have been revealed by the Omniscient Ruler, there is that which is so singular that it raises the Bible above all the ordinary histories by which it has ever been tested.

As the older prophets, one after another, traverse the sphere of Bible History, the observant student recognizes in each an accredited "Man of God." Their messages, their looks, their tones, are so singular that they cannot be classed with even the greatest actors in the world-histories. Their place and their function are peculiarly their own. In their fervent unselfishness, in their lofty aspirations, in their intuitional insight, they are peerless. In following their footsteps, the student realizes an ennobling companionship, and cherishes impressions which were hitherto unknown to him.

Although there are exceptions to this general statement, in such instances as those of Balaam and Caiaphas—the one an *unwilling*, and the other an *unconscious*, instrument\*—and although it must be slightly modified to meet such a faltering of faith, and love, and submissiveness as Jonah temporarily exhibited, or such selfishness and hardihood as the old prophet at Bethel showed, they only the more strikingly manifest the general rule of the Divine procedure as in harmony with the sovereignty of the Divine purpose. The greatness of the prophets of the old as well as of the New Testament is distinctly visible, not so much in their unfolding present truth and instructing the people, as in their insight of the distant future, regarded as an evolution from the present.

\* "Fairbairn on Prophecy," p. 499. Second edition.

The truths revealed, and the spirit of the revealers, separate the prophets from all other men. Their oracles are a phenomenon which cannot be overlooked. They are alone, they arrest attention, and educe a feeling of awe. The twofold function of prophecy, while it pervades Bible history, and unites all its parts so as to constitute an organic whole, is itself an evidence of the truth of the Bible, which encourages the believer to rest with confidence in the controlling wisdom and power of God. Our Lord himself hath said, "Now I tell you before it come, that, when it is come to pass, ye may believe that I am he." John 13: 19.

The apparent vagueness of some of the prophecies is no valid reason for rejecting them. While some are confessedly difficult of interpretation, there is a necessity for vagueness, because the definite revelation of future events would arrest the activity and mar the peace of nations or communities; and their approach, therefore, is so enveloped in allegory, that the accomplishment of the prophecy becomes its clearest and most satisfactory exposition. "Prophecy must thus, in many instances, have that darkness which is impenetrable at first, as well as that light which shall completely dispel every doubt at last; and as it cannot be an evidence of Christianity until the event demonstrate its own truth, it may remain obscure till *history* become its interpreter, and not be perfectly obvious till the fulfilment of the whole series with which it is connected."\* But with the obscure prophecies it is unnecessary here to occupy time, while

\* "Evidence of Prophecy," by the Rev. Dr. Keith, p. 7. 1868.

so much that is indisputable is at hand. Let it be understood, however, that while some are detached from the others for the purposes of our general argument, all the prophecies are to be held related to one another; they converge to one centre, Christ, and they spread from this centre, outwards, over his extending kingdom, until it is completely encircled. It will be enough to place together, by way of illustration, two or three prominent examples of fulfilled prophecy, as indicating a line of proof which, to many minds in all ages of the Church, has been as a fountain of water in a withering wilderness.

## II. THE EVIDENCE OF PROPHECY.

Sacred History and Prophecy, blending at the very commencement of Revelation, still continue to illustrate the principles of the Divine Government. The words of the Great Ruler, spoken after the fall of our first parents, are distinctly explanatory of the misery in the world, and of the happiness in the church. "And I will put enmity between thee and the woman, and between thy seed and her seed; it shall bruise thy head, and thou shalt bruise his heel. Unto the woman he said, I will greatly multiply thy sorrow and thy conception; in sorrow thou shalt bring forth children; and thy desire shall be to thy husband, and he shall rule over thee. And unto Adam he said, Because thou hast hearkened unto the voice of thy wife, and hast eaten of the tree, of which I commanded thee, saying, Thou shalt not eat of it: cursed is the ground for thy sake; in sorrow shalt thou eat of it all the days of thy life." Gen. 3:15-17.

In this brief statement is the germ of all history. Every Messianic prophecy is traceable to it; and in it are the secrets of human sorrow and Christian joy. In its light we can more easily comprehend the universal social and moral turmoil, the struggles for salyation, the triumphs of holiness, and the certainty of victory when "the *head*" of the serpent is bruised, and the evil principle has become powerless, by which man was seduced to his fall. No sooner had man lost the high position assigned him, and passed into the gloom of condemnation, than the first prediction beamed in mercy upon him. Its light is the dawn and dayspring of prophecy, showing that "Man was not excluded from Paradise till prophecy had sent him forth with some pledge and hope of consolation."\*

Within this wide view may be collected all the prophecies of the Old Testament; and there is not a subordinate prediction which does not find its meaning and vindication in this briefly unfolded plan of redemption. While the whole body of ancient Prophecy is intimately related to the way of salvation, and while, with history as its channel, it seems to end in the crucifixion and resurrection of the Lord Jesus, it reappears in the extension of Christianity, and in its prospects of illimitable blessedness.

After this twofold sentence of condemnation and of promise, Prophecy appears in two distinct forms, the one prediction in words, and the other prediction in actions; it often sets forth the same truths, now verbally and now in types. While they are mutually illustrative, and while there is abundant evidence of supernatural in-

\* "Davison on Prophecy," p. 53.

fluence, it will be sufficient to limit this part of the argument to two or three of those more comprehensive prophecies whose fulfilment history is still exhibiting with a breadth and distinctness which cannot be either ignored or despised.

1. The first comprehensive and far-reaching prophecy after the flood, comes to us in the words of Noah, "And he said, Cursed be Canaan ; a servant of servants shall he be unto his brethren. And he said, Blessed be the Lord God of Shem ; and Canaan shall be his servant. God shall enlarge Japheth, and he shall dwell in the tents of Shem ; and Canaan shall be his servant." Gen. 9:25-27. For more than three thousand years this prophecy has been historically tested and verified. The rebuke that fell on Canaan still rests on his race ; and the blessings promised to Shem and Japheth are still spreading among their descendants.

The sacred historical delineations of each family descending from Noah, and of their different settlements, afford to us the means of ascertaining whether this prophecy is holding good or not.

Japheth and his descendants had, for their territory, Europe, or the countries beyond the Mediterranean. "By these were the isles of the Gentiles divided in their lands ; every one after his tongue, after their families, in their nations." Gen. 10:5. The descendants of Ham had Africa and the southwest of Asia for their portion. "And the sons of Ham ; Cush, and Mizraim, and Phut, And Canaan. . . and afterward were the families of the Canaanites spread abroad. And the border of the Ca-

naanites was from Sidon." Gen. 10:6, 18, 19. Tyre, and Carthage also, whose position in ancient history was so distinguished, were their cities. The sons of Shem and their families had their home in the East. "And their dwelling was from Mesha, as thou goest unto Sephar, a mount of the east." Gen. 10:30. The respective territories of Japheth, Ham, and Shem, are distinctly outlined; and while very many changes have passed over their separate "families," or divisions of the human race, these old distinctions remain as deep as ever. Although cursory readers regard the tenth chapter of Genesis as valueless, it is the most remarkable historical document in existence; remarkable, because associated with facts in the past which have been established, and with facts in the future which could only be known to one supernaturally instructed. No page of history can be made parallel with it. The records of succeeding centuries confirm it, and the present condition of the world is its commentary. The descendants of Ham, in Africa, are "the servant of servants," although, at the beginning of their history, they had a glorious career in Asia, with Babylon as their centre; and another triumphant career when the Carthaginians, with Hannibal as leader, almost made Rome and Europe their servant. Similarly, at the close of their history, or near it, grander triumphs, because moral and spiritual, may give lustre to their history, when they own the Saviour's sway, and are, with Japheth and Shem, "the servants" of the Lord alone.

Now, is not Japheth "enlarged" everywhere by extending intellectual and political influence? Does not

every emigrant vessel from Europe, as it carries to distant lands the foundation of new colonies, fulfil and establish this olden prophecy? And are not the advances of Britain in India on the one side, and of Russia on the other, the fulfilment, in even a literal sense, of the declaration that Japheth "shall dwell in the tents of Shem"? "What simile, drawn from the simplicity of primeval ages, could be more strikingly graphic of the numerous and extensive European colonies in Asia? And how much have the posterity of Japheth been enlarged within the regions of the posterity of Shem? In how many of their ancient cities do they dwell? How many settlements have they established? while there is not a single spot in Europe the colony or the property of any of the nations whom the Scriptures represent as descended from Shem, or who inhabit any part of that quarter of the world which they possessed. And it may be said in reference to our own island, and to the immense extent of the British Asiatic dominions, that the nations of the *isles of the Gentiles dwell in the tents of the East!* Whence, then, could such a prophecy have emanated, but from inspiration by Him whose presence and whose prescience are alike unlimited by space or by time?"\*

2. There are prophecies which require historical conditions for their fulfilment so opposite that they cannot possibly be reduced within the sphere of the merely natural, and to some of these alone we shall restrict our proof. The following tests are not only applicable to them, but separate them from all that the most keen-

\* "The Evidence of Prophecy," by Dr. Keith, p. 523.

sighted sagacity could predict: "That the prediction be known to have been promulgated before the event; that the event in question be such as could not have been foreseen, at the time when it was predicted, by any effort of human reason; and that the event and prediction correspond together in a clear and adequate accomplishment."\* It is sufficient for our argument to examine only those prophecies which have reference to three nations whose histories are so singular, and to three cities whose overthrow and destruction were brought about by means so diverse, that they cannot possibly be explained by any natural prescience, however vivid.

Two of the earliest and less general prophecies, the one referring to the Ishmaelites, the other to the Israelites, are in fulfilment, so diverse, that no unaided human being could have even planned such a future as in the least degree probable.

I. The prediction regarding ISHMAEL is remarkably clear and intelligible. "And thou shalt bear a son, and shalt call his name Ishmael. . . . And he will be a wild man; and his hand will be against every man, and every man's hand against him; and he shall dwell in the presence of all his brethren. . . . Twelve princes shall he beget, and I will make him a great nation." Gen. 16: 12; 17: 20.

It may be objected that this prophecy was not promulgated till the time of Moses; but taking the facts as they lie before us since that distant time, they constitute strongly presumptive evidence that the prophecy was uttered before Ishmael's birth, and was preserved in the

\* "Davison on Prophecy," p. 348.

traditions and writings of the people, until Moses gave it a permanent place in the Scripture record.

This prophecy has, in every particular, proved true ; it has photographed a national character which, for more than three thousand years, has continued unchanged.

In all ages, historians have described the Bedouin Arab as a "wild man," or *wild ass*-man ; as roving, predatory, engaged in ceaseless feuds with his neighbors, reckless of the milder restraints of civilization, and setting at defiance those international laws which regulate the intercourse of surrounding nations. The Ishmaelites or Arabians have ever held fast by the same country. Anchored in one land, they have swung over surrounding communities, only to settle, at last, in their own appointed territory, and to retain precisely the same characteristics. The "wildness," which in other tribes and nations has been first softened, then effaced, has, in their features, never been even lessened by the lapse of ages. Not dispersed by conquest, nor wasted by migration, they dwell still "in the presence of all their brethren," a strange national spectacle, utterly inexplicable by those laws which regulate other races. Comparatively fugitive and unstable as are the general characteristics of nations while the influences of centuries sweep over them as tidal waves on the shore, the Ishmaelites remain the same as when this strangely-expressed prophecy was first uttered by the angel of the Lord.

The more powerful national influences, the attractions of fairer lands, and the luxury of indolent races, utterly failed to change in the least their characteristic features,

during that splendid period when their empire extended from the borders of India to the Atlantic. Through all they stood forth a perpetual representation of the facts predicted in their history, and their present condition harmonizes with that of many ages ago.

2. In contrast with this prophecy, there are those which delineate the marvellous future of the Jews with such depth and distinctness that they arrest the most careless reader. Moses foretold their future when their prospect was brightened by the increasing light of fulfilled promises, as they neared the land of Canaan. Their history, at the present day, cannot be written in more truthful and striking terms than in those which Moses used three thousand years ago: "I will scatter you among the heathen, and will draw out a sword after you; and your land shall be desolate, and your cities waste. . . . And upon them that are left alive of you, I will send a faintness into their hearts in the lands of their enemies; and the sound of a shaken leaf shall chase them; and they shall flee, as fleeing from a sword; and they shall fall when none pursueth. . . . And ye shall have no power to stand before your enemies. . . . And yet for all that, when they be in the land of their enemies, I will not cast them away, neither will I abhor them, to destroy them utterly." Lev. 26:33, 36, 37, 44. "The Lord shall bring thee, and thy king, which thou shalt set over thee, unto a nation which neither thou nor thy fathers have known. . . . And thou shalt become an astonishment, a proverb, and a byword among all nations. . . . And the Lord shall scatter thee among all people, from

the one end of the earth even unto the other." Deut. 28: 36, 37, 64. Long afterwards, the prophets wrote in the same strain. "I will cause them to be removed into all kingdoms of the earth. . . . I will cast you out into a land that ye know not." Jer. 15: 4; 16: 13. "For lo, I will command, and I will sift the house of Israel among all nations, like as corn is sifted in a sieve, yet shall not the least grain fall upon the earth." Amos 9: 9.

These are merely examples of many predictions which might be quoted; they have the clearness of history, and they have now the emphasis of a fulfilment which is mysterious in its antecedent process, but clear as noonday in its results. By the laws of amalgamation or extinction, we can account for the changes which appear in the smaller as well as vaster nations of the world; we can trace the causes by which Hungary and Poland have been prostrated, and by which Russia is still rising and extending in her colossal strength; we can see in the ruin of France, in the triumph of Prussia, and the gradual collapse of the Turkish Empire, various forces at work which have often reappeared in history; we can trace in the slow amalgamation of races in America, and in the rapid disappearance of Indian tribes, laws definite almost as those which regulate the planetary system; we have a sound philosophy of history, whose great aim is not the mere aggregate of many facts, but the exposition of their causes, and we are satisfied with the conclusions which have been reached; but in the Israelites we have a people which baffle historical adjustment, and whose characteristics are not reducible within any com-

monly-recognized classification. They remain a marvelous isolation. In Britain, the distinctions of Norman and Celt and Saxon are fast disappearing; but the Jews are everywhere "scattered," and yet everywhere retain not only their physical features, but their intellectual, moral, and religious conformation. Apart from the Bible, unaided reason has failed to solve the problem of a people scattered and down-trodden by the nations for nearly two thousand years, yet universally preserved.

What a terrible past has been theirs! What a mysterious present! "Plucked from off their own land," and "smitten before their enemies," they yet survive, not obscurely, but with historical lustre, as in a mirror's scattered fragments, and with a prominence which the world owns. Adrian made it death to the Jew to set his foot amid the ruins of Jerusalem; Justinian abolished the synagogues; Mahomet sought the destruction of every Jew; the Church of Rome has done her best for their extirpation, and has failed; the thunders of her excommunication have rolled over every land which her influence could reach; "the Jews" were everywhere the objects of popular insult, of almost intolerable oppression, and frequently of a general massacre. No mode of cruelty was deemed unjustifiable. Again and again were they banished from France; they were driven from Spain; England, during the Crusades, gathered her forces to destroy them; the barons, to win popular favor during their struggle with Henry III., slaughtered seven hundred of them, and plundered their houses; Edward I. seized all their property, and drove them in misery from

the kingdom, and four hundred dreary years elapsed ere they ventured to return. There is no history which is not darkened by their wrongs, and there is none unstained by their blood. Most fearful has been the fulfilment of the prophecies that they shall be a "proverb," an "astonishment," a "byword," a "taunt," and a "hissing among all nations."\* The Jew is, at this moment, a wanderer in every land, with a home in none. In no country is he unknown, from Norway to Japan, from Spain to Southern Africa; and no social grade in the East or the West is without his presence. In Shiraz, as Dr. Wolf has told us, young men, old men, and women, sit on the streets begging. With head bowed down, and hand stretched out, they cry piteously to the stranger: "Only one penny, only one penny, I am a poor Israelite, I am a poor Israelite." "I wonder not," he adds, "that their harp is mute." From that sunken state in the East, and from similar obscurity and apparent helplessness in every one of our great cities, they rise through every social stage, until they sit honored amid the proudest. In London, Paris, Vienna, and Berlin, they are the money-holders of Europe, deciding the questions of peace and war, and giving impulse or restraint to the commerce of the world. Although inwrought with the whole fabric of society, they are yet not of it; they are truly a "peculiar people," resisting almost all those social, intellectual, and moral agencies by which communities are changed.

Their preservation seems all the more astonishing

\* See "Keith on the Evidence of Prophecy," and Hallam's History, vol. 1.

when we remember that *locality* was part of their religious system. Jerusalem was essential to it. The Christian may build his church, or the Pagan his temple, wherever he pleases ; but the Jew may build *his* nowhere save in the Holy City. Thus, their religion was localized ; but they still cleave to the past, and still look wistfully, yet with brightening hope to the future. For more than sixty generations have they thus mingled with the Gentile races, yet they have kept aloof, they have eaten the passover, and have been sandalled for the expected fulfilment of many prophecies. How account for these strange facts ? How explain the movements of Jewish history ? The philosophy of history has hitherto failed. The condition of this mysterious people has proved inexplicable by any of the ordinary laws of human history. By the Scriptures alone we are guided to the right solution. The Jews are dispersed, but not destroyed ; because the Lord of Glory, by whom they have been condemned, has purposes yet unfulfilled. But how explain the fact, except by admitting the supernatural ? That these conditions have been actually foretold so many centuries before, cannot be disputed, for the prophecies have a place in the oldest writings in the world. Similarly dark sayings have been spoken in succeeding ages. Results, unimaginable by human wisdom, have been boldly predicted, and they have appeared mysteriously in the manner anticipated. As the human mind often vacillates regarding even the nearest events and their issues, is it in the least degree probable that it could have ever so penetrated the secrets of time as accurately to anticipate Jewish history ?

Is there not fullest evidence in all that bears upon the condition of the Jews, that a higher knowledge than man's has been making their future known? The prophetic record is not made up of random conjectures or gloomy forebodings. "There is not only foresight, but foresight of a most impartial and discriminating kind, capable alike of descrying the darker and the brighter aspects of the future; dwelling even with painful emphasis on the coming evil, and reiterating it, yet without ever losing sight of the coming good; and even when the clouds of present trouble gathered thickest, only proceeding with a clearer eye and a more assured step to reveal the glorious and blessed future that lay beyond. Most remarkably have both parts of the prospective outline been fulfilled."\* It "seems undeniable that most striking fulfilments have taken place of what no merely human eye could have foreseen, nor the shrewdest intellect anticipated."† And we reassert that the argument has all the greater weight, when we contrast the future of Ishmael with the future of Israel, and the dissimilar agencies by which their destiny has hitherto been determined. Ishmael still localized in Arabia, and Israel dispersed over the whole world, are separate yet steadfast witnesses of a ruling hand behind their extraordinary histories.

3. Older than the Ishmaelites and the Israelites, civilized and powerful before their different races had any appreciable influence on the world, the EGYPTIANS had maintained their matchless powers; and the splendors of

\* "Fairbairn on Prophecy," p. 222.

† *Ibid.*, p. 223.

their early empire are still seen, though dimly, in Thebes and Memphis, in Heliopolis and Phibeseth, in pyramids, obelisks, and sphinxes. Everything in Egypt's early history betokened a continuance of her power; in subsequent centuries, temporary reverses were soon corrected, and yet, in the midst of abounding evidences of stability, prophets foretold a national history altogether peculiar, and in striking contrast with that of either Ishmael or Israel. Through the same laws of human foresight or sagacity, the rationalist cannot possibly account for predictions so widely varying, as those which describe the future of the Arabians, the Jews, and the Egyptians.

National changes, that are utterly inconsistent with those anticipations which the previous course of Egyptian history should have suggested, were foretold with the most fearless confidence. The minuter, as well as the more general prophecies, have been notably fulfilled; but it is necessary for our present object to refer only to two or three of those more prominent predictions which describe Egypt's future state.

“And they shall be there a BASE KINGDOM. It shall be the BASEST OF THE KINGDOMS; neither shall it exalt itself any more above the nations: for I will diminish them, that they shall no more rule over the nations.” Ezekiel 29:14, 15. “And there shall NO MORE be a PRINCE of the land of Egypt: and I will put a fear in the land of Egypt.” Ezekiel 30:13.

The condition of Egypt is so different from that of the Jews or Ishmaelites, that “he who runs may read it;” the former are scattered and without a home, and

the latter are independent and free as they were three thousand years ago: but Egypt has sunk to be base among the nations, and to be ruled by foreigners or strangers. That kingdom which was long the most powerful and most honored among the nations of the world, has become the helpless victim of successive oppressors. Assyria first rivalled her splendor, and, after lessening her power for a season, humbled her. Three hundred and fifty years before the Christian era, the Persians reduced her to a comparatively degraded condition, and in succession the Macedonians, the Romans, the Saracens, the Mamelukes, and the Turks, have trodden her fertile plains and greatly embarrassed her.

Although Egypt temporarily revived under the vigorous rule of the Ptolemies, they were "foreigners," and the predictions held true, "There shall no more be a prince of the land of Egypt:" "The sceptre of Egypt shall depart away." For more than two thousand years the degradation of the kingdom has been painfully visible amid a profusion of nature's benefits. Its comparatively ignominious state, its acknowledged baseness among nations in the midst of which it is still lingering, enfeebled and paralyzed, so distinctly fulfil the bold prophecies of Isaiah and Ezekiel, that we are justified in demanding the acceptance of supernatural teaching as the explanation of Egypt's varying history. Every fact which travellers describe, and the past and the present historical photographs by which modern inquiries have assisted the student of prophecy, so vindicate and confirm the truth of the predictions, that no one can

escape without difficulty from the impression that the prophets were supernaturally guided by the Spirit of God to the truths which they have written.\*

There is another series of prophecies minuter, and in some of their aspects more specific, which yet, in detail and results, are so different that no rationalistic theory can possibly harmonize and explain them. The predictions regarding Tyre, Nineveh, and Babylon, are so distinct, and they have been so literally fulfilled, that it is almost inconceivable how any unprejudiced student can repudiate the idea of a deeper *insight* and a surer guidance than man's.

The prophecies were uttered when these great cities were basking in the light of prosperity, and there was *no* likelihood of ruin. With our knowledge of ages of history, and, consequently, of those laws that determine the growth and decay of nations, we might anticipate with tolerable accuracy the upbreking of an empire, or the overthrow of a city; but this experience was not possessed by the prophets, and even if they had possessed such knowledge of national history as men now enjoy, they could not possibly have described with such exactness ruins so different as are those of the cities to which reference has just been made. Not only are the prophecies general in their outline, but they state such distinct particulars as no mere human foresight could have discovered. Let us notice them briefly in detail.

I. Those predictions which relate to TYRE are very clearly embodied in the writings of Isaiah and Ezekiel.

\* See "Fairbairn on Prophecy," pp. 208, 209.

While Tyre was the very centre of the commerce of the civilized world, and Carthage, the rival of Rome, was one of her colonies, Isaiah, one hundred and twenty-five years before her overthrow, with almost overwhelming earnestness, foretold her approaching fate; and with singular vividness Ezekiel wrote beforehand the details of her devastation. "Therefore thus saith the Lord God, Behold, I am against thee, O Tyrus, and will cause many nations to come up against thee, as the sea causeth his waves to come up. And they shall destroy the walls of Tyrus, and break down her towers: I will also scrape her dust from her, and make her like the top of a rock. It shall be a place for the spreading of nets in the midst of the sea: for I have spoken it, saith the Lord God; and it shall become a spoil to the nations. And they shall make a spoil of thy riches, and make a prey of thy merchandise; and they shall break down thy walls, and destroy thy pleasant houses: and they shall lay thy stones and thy timber and thy dust in the midst of the water. And I will make thee like the top of a rock: thou shalt be a place to spread nets upon; thou shalt be built no more: for I the Lord have spoken it, saith the Lord God. I will make thee a terror, and thou shalt be no more; though thou be sought for, yet shalt thou never be found again, saith the Lord God." Ezek. 26: 3-5, 12, 14, 21.

These predictions have been literally fulfilled, but at intervals of time. Looking at lights in a straight line, we suppose there is only one shining, but no sooner is the one passed than we discover others in succession: so is it in this prophecy: its lights are separate yet con-

tinuous ; part was fulfilled at one time, and part at another. For thirteen years Nebuchadnezzar plied the siege of Tyre, "the head became bald," and "the shoulder peeled." Sorely pressed, the Tyrians, having transferred their families and their wealth to an island close to the shore, abandoned old or continental Tyre to the army of the besieger. Enraged by finding that the citizens and their treasures had been removed beyond their reach, they completely destroyed the city ; they left it an utter ruin ; and they appear to have carried into captivity the Tyrian royal family. The subjection continued until the end of "the seventy years" referred to by Isaiah 23:15-17, when the Babylonian monarch was set aside by the Persians. Not until Alexander the Great carried his conquests eastward was insular Tyre attacked, and as "*the stones and the timber and the dust*" of old Tyre were cast into the sea to form a passage from the shore to new Tyre, for Alexander's troops, the old prophecy was literally fulfilled. Thus, the very city was "cast into the sea," and is "no more ;" though sought for "it cannot be found." The desolation is complete. Insular Tyre fell beneath the relentless arm of Alexander the Great, and it is now literally, as travellers describe it, "a place for the spreading of nets in the midst of the sea."

2. The prophecies regarding NINEVEH differ much from those which describe the overthrow of Tyre. Taken literally and apart from what has been recently ascertained by mound-explorers, they appear to be unlikely, if not contradictory, in their reference to the means by which the city was to be destroyed. The accounts of

Nineveh in other writings than the Bible, confirm its delineations of its strength and grandeur. Heathen historians have described its walls as a hundred feet in height, sixty miles in circumference, and defended by fifteen hundred towers, which were two hundred feet high. With marvellous force and vividness does the prophet Nahum proclaim the means by which this great city would be overthrown, and the permanence of its desolation. By two opposite elements—the flood and the fire—was its overthrow to be achieved; though vast in its extent and commanding in its power, it was yet to be covered with abominable filth, and “made vile;” and though glorious in its position among the nations, it was destined to become “a gazing stock.” “But with an OVERRUNNING FLOOD he will make an utter end of the place thereof.” Nahum 1:8. “The GATES of *the rivers* SHALL be OPENED, and the palace shall be dissolved.” Nahum 2:6. But *fire* also was to be a worker for the destruction of this doomed city. “For while they be folden together as thorns, and while they are drunken as drunkards, they shall be devoured as stubble fully dry.” Nahum 1:10. “The *fire* shall devour thy bars.” Nahum 3:13. “There shall the fire devour thee.” Nahum 3:15. To a heathen witness are we indebted for evidence of the fulfilment of these seemingly incongruous predictions, and that evidence is complete. He has told us that after the Assyrian king had gained these great victories over his enemies, and their power seemed utterly broken, he and his soldiers abandoned themselves to revelry. But the Medes and Persians having rallied

their scattered forces, and having received in the Bactrians a new ally, suddenly fell on the Assyrian monarch and his army, when they had given themselves as slaves to drink, and they so completely overwhelmed them that the Assyrian king had to betake himself to the city and remain shut within its walls as a captive. Thus was the prophecy fulfilled, "While they are *drunken* as drunkards they shall be devoured as stubble fully dry." Completely crushed by an overwhelming force, they were in their weakness "folden as thorns." For two years the Assyrian monarch was secure within the strongly-fortified city, but in the third year, when he had made vigorous preparations for retrieving his position, an unexpected inundation of the river Tigris broke down the massive wall and carried away about twenty furlongs of it; "the gates of the river were opened" "with an overrunning flood," a breach was made; and the king, feeling that all was now lost, made for himself and his associates a large funeral pile of wood, and placing on it his gold and silver and apparel, he perished with them. Most unlikely as was the combination, the *fire* also did its predicted work, and thus the palace was dissolved, or literally "molten."

The same heathen historian has told us that many talents of gold and silver which were preserved from the fire and found throughout the city, were carried off by the enemy to Ecbatana, and from recent sources we have learned that the implements of war, the robes, the ornaments, the ear-rings, the bracelets, the vases, the chairs, the tables, the ordinary articles of domestic furniture,

were designed with such consummate taste as "to rival the productions of the most cultivated period of Greek art." And does not this explain the prophetic injunction, "Take ye the spoil of silver, take ye the spoil of gold; for there is none end of the store and GLORY out of all the pleasant FURNITURE." Nahum 2:9.

The completeness of the destruction and the permanence of the desolation were foretold with such bold distinctness, as to give the impression that Nahum's language was merely hyperbolic, but the results have proved to the very letter its historical accuracy. The Lord "will make an utter end of the place thereof." "Affliction shall not rise up the second time." "She is empty, and void, and waste." "Nineveh is laid waste: who will bemoan her?" Nahum 1:8, 9; 2:10; 3:7. And Zephaniah, with a boldness no less arresting and impressive, proclaimed Nineveh's destruction and ruin. "The Lord will make Nineveh a desolation, and dry like a wilderness. And flocks shall lie down in the midst of her, all the beasts of the nations: both the cormorant and the bittern shall lodge in the upper lintels of it; their voice shall sing in the windows; desolation shall be in the thresholds; for he shall uncover the cedar work." "How is she become a desolation, a place for beasts to lie down in!" Zeph. 2:13, 14, 15.

Fearfully and most convincingly have all these predictions been fulfilled. Nineveh has gone down in "utter ruin." "Affliction has not risen up a second time." The very ruins were lost. Mounds of "abominable filth" were cast on the place where her palaces stood, making

her "vile;" and all that Layard, Botta, and others have done in opening her ruins and exposing her long-buried treasures, have given a new fulfilment to the prophecy by making her "a GAZING stock" to the whole civilized world.

3. No less distinct were the prophecies regarding the destruction of BABYLON, but the means of the overthrow were so different from those by which Nineveh was overwhelmed, that the prediction carries within itself indirect evidence of its truth. One hundred and sixty years before an enemy approached the city, its doom was foretold. Isaiah and Jeremiah, with startling vividness, and yet in tones of deepest sadness, delineate the future of Babylon at the time when its glory and strength bade defiance to every prediction. Most mysteriously have the springs of history been touched, and most distinctly have prophetic results been brought out. Long descriptive passages in the Bible might be quoted, but two or three will be sufficient for our argument. "Behold, I will stir up the Medes against them, which shall not regard silver; and as for gold, they shall not delight in it. And Babylon, the glory of kingdoms, the beauty of the Chaldees' excellence, shall be as when God overthrew Sodom and Gomorrah. It shall NEVER be INHABITED, neither shall it be dwelt in from generation to generation: neither shall the Arabian pitch tent there; neither shall the shepherds make their fold there; but the wild BEASTS OF THE DESERT SHALL LIE THERE; and their houses shall be full of doleful creatures; and owls shall dwell there, and satyrs shall dance there. And the wild beasts of

the islands shall cry in their desolate houses, and dragons in their pleasant palaces." Isa. 13:17, 19-22. Again, "And Babylon shall become heaps, a dwelling-place for dragons, an astonishment, and a hissing, without an inhabitant." Jer. 51:37. These and similar predictions of overthrow and utter ruin have been literally fulfilled, as every one knows who has even very cursorily read the history of the ancient eastern monarchies. No less strangely were the means announced by which this powerful city was to be overwhelmed, and no less exactly have the results come forth as predicted.

For the taking of Nineveh, a river was to rise and make a breach; but for the taking of Babylon a river was to be withdrawn, and its deserted bed was to be a highway for the approach of Cyrus' soldiers. Thus saith the Lord "that saith unto the deep, Be dry; and I will DRY UP THY RIVERS." Isa. 44:27. "A drought is upon her waters; and they shall be dried up." Jer. 50:38. "And I will dry up her sea, and make her springs dry." Jer. 51:36. The secrecy of the approach and the helplessness of the ensnared Babylonians, were no less clearly taught in such predictions as these: "I have laid a snare for thee, and thou art also taken, O Babylon, and THOU WAST NOT AWARE: thou art FOUND *and* ALSO CAUGHT, because thou hast striven against the Lord." Jer. 50:24. It is unnecessary to repeat the well-known facts of Cyrus having turned the river Euphrates from its course, and of his troops passing secretly into the city when Belshazzar was madly quaffing wine from the vessels of the sanctuary, until the mysterious handwri-

ting on the wall paralyzed him with terror. Babylon was "*snares and caught.*" The soldiers having been taught by Cyrus that the doors of the houses were of palm-wood and covered with bitumen, secretly carried torches with them and suddenly set fire to the city,\* fulfilling the prediction, "And her high GATES shall be BURNED with FIRE; and the people shall labor in vain, and the folk IN THE FIRE, and they shall be weary." Jer. 51:58. So complete was the stratagem of Cyrus, so sudden the seizure of the place, and so silent and sure its overthrow, that those in one part of the city did not know for some time what disasters had overtaken another portion of the inhabitants. In every particular have the prophecies been fulfilled, and they differ so completely in arrangement from those relating to Tyre and Nineveh as to remove them from any of the common efforts of that *sagacity* or *foresight* of which rationalism has recently attempted to make so much.

In short, the details are so varied, and yet so accurately stated regarding both the means by which these great cities were to be destroyed, and the permanence of their ruin, that it is difficult to conceive how any unprejudiced student can escape the impression that the prophets were supernaturally guided.

\* Xenophon, book 1, chap. 191.

## CHAPTER XV.

RECENT THEORIES REGARDING THE SUPERNATURAL AND  
THE REIGN OF LAW—EVIDENCE IN NATURE OF THE  
SUPERNATURAL.

The battle against the supernatural has been going on long, and strong men have conducted and are conducting it; but what they want is a weapon. The logic of unbelief wants a universal. But no real universal is forthcoming, and it only wastes its strength in wielding a fictitious one.  
—THE REV. J. B. MOZLEY, B. D.

THE careful study of the Bible constrains those who are not wedded to some foregone conclusion, to acknowledge impressions or ideas of a supernatural influence such as are created by the perusal of no other book. The brief review which we have taken of history in its relation to prophecy, has shown an enlightening and a controlling power which is not recognizable within the sphere of ordinary records. But in advocating the existence of supernatural influences, we have to confront relentless opposition.

Animated by an intense love of nature, and sensitively jealous of even the slightest reference to the supernatural, some influential writers are not only repudiating every agency which is independent of physical tests, but assigning to the laws of nature an executive or administrative function. They are investing them with powers which can only be legitimately connected with intelligence and purpose; and the scorn with which they repel

every allusion to direct control by a personal Deity, is no less perplexing than it is saddening. The repudiation of the supernatural is, with them, axiomatic ; they put the cause out of court ; they can see in nature nothing more than a rigidly regulated system, and they limit the basis of their philosophy to those forces and phenomena with which alone physical science is conversant. They do not hesitate to assert that the Creator "cannot be imagined as acting on the line of cause and effect, and that even by his own hand no law can be deflected or reversed. He has not the liberty of acting, except within the lines of a fixed routine ; and in the moral government of the human race he is without freedom of volition apart from those laws which keep in harmonious movement the everlasting machinery of the universe.

The enthusiasm with which researches have been prosecuted in physical science, has predisposed some to originate, and many to accept theories, of which nothing would have been ever heard if there had been similar earnestness in the counterpoise study of metaphysics. Opposite tendencies would have been balanced, and in the peaceful walks of science and philosophy we should not have been meeting bigotry and intolerance as narrow, sharp, and unrelenting as have ever confronted the student of purely theological controversies. The conclusions which have found in Britain a large measure of sympathy, if not avowed acceptance, may be best estimated through the language of their advocates. A few statements may be sufficiently historical and expository not only to induce a careful examination of the tendency

of British skepticism, but to show the probable effect of those concessions which some of our ablest Christian apologists are making in the struggle to counteract its progress.

As the late Rev. Baden Powell, Savilian Professor of Geometry in the University of Oxford, was among the first to utter, with fearless emphasis, what others were holding "with bated breath," and as he expounded to the youth of one of the first universities in the civilized world convictions which were warmly welcomed, we at the outset submit his conclusion :

"It is the province of science to investigate nature ; it can contemplate nothing but in connection with the order of nature ; it cannot point to anything out of nature. The limits of the study of nature do not bring us to the confines of the supernatural."\* "From the very condition of the case, it is evident that the *supernatural* can never be a matter of *science* or *knowledge* ; for the moment it is brought within the cognizance of reason, it ceases to be supernatural. If nature could really terminate anywhere, then we should not find the *supernatural*, but a chaos, a blank—total darkness—anarchy—atheism."† "The supernatural is the offspring of ignorance, and the parent of superstition and idolatry ; the natural is the assurance of science, and the preliminary to all rational views of Theism."‡

Without carrying his demands so far as to exclude the supernatural as altogether unreal or unimaginable, he insisted that a "theism of *omnipotence*, in any sense devi

\* "The Order of Nature," p. 231. † Ibid., p. 232. ‡ Ibid., p. 248.

ating from the order of nature, must be entirely derived from *other* teaching," that is, from the Bible. While asserting that "creation," and the ideas we attach to it, are derived from the Scriptures, and demanding that they be not confounded with those ideas which are of purely scientific origin, he admitted their value, but traced them to faith. The school to which he belonged has moved considerably in advance of his opinions. Herbert Spencer, who may be regarded as among the foremost expositors of its present beliefs, rejects, as utterly "unthinkable" and "unknowable," that which Baden Powell, notwithstanding the fervor of his love for physical science, held fast as coming from another source. The supernatural in its highest relations, Spencer displaces and disowns as "unscrutable," and in reference to the forms of religion, he declares "that no hypothesis is even thinkable."\*

The Deity is virtually, though not formally, excluded; and the supernatural, in both its relative and absolute aspects, is consequently repudiated. What is unknowable or unthinkable is equal to nothing, and the whole system must be ever destitute of emotional fervor and moral value. There is nothing in it to engage our sympathies, sustain our hopes, stimulate our services, and develop brotherly kindness.

But the principles of this school demand logically a much wider application than British thinkers generally are disposed to make. There is evidently no resting-place short of that which French writers have taken and

\* "First Principles," p. 46.

defended; but the former shrink from it as a course whose inevitable issue is Materialism. The boldness of continental reasoning sheds light on the end to which its logic is guiding the disciples of that school; and its conclusion must be repudiated or accepted.

"If we do not enter on this discussion," says M. Havet, "it is from the impossibility of doing so without admitting an inadmissible proposition, namely—the *mere possibility* of the *supernatural*. Our principle is to hold ourselves constantly from the supernatural—that is, from the imagination. The dominant principle of all true history, as of all true science, is, that that which is not in nature is nothing, unless as an idea."\*

"Positive philosophy," writes M. Littré, "sets aside the systems of theology which suppose supernatural action."

M. Renan has said with equal boldness: "For myself, I believe that there is not in the universe an intelligence superior to that of man; the absolute of justice and reason manifests itself only in humanity; regarded apart from humanity, that absolute is but an abstraction. The infinite exists only when it clothes itself in form."†

These principles have been warmly welcomed and vindicated by some eminent physicists and metaphysicians who, although prosecuting different studies, and adopting in some instances contradictory propositions, have shown in their conclusions remarkable similarity.

\* *Revue des Deux Mondes*, August, 1863.

† Quoted in Pressensè's "Jesus Christ: his Life and Times," pp. 10, 11.

At a recent meeting of the British Association in Edinburgh, the dogma, "Nature is God," found a willing advocate; and even where the avowal of the speculatist has not been direct, his statements have been sufficiently expository of the ideas that Law is supreme, and that it is fully adequate to the production of all that we can discover. The writings of Darwin, and the "General Conclusions" of Owen, on the side of natural science; the writings of Mill, Herbert Spencer, and others, on the side of metaphysics and ethics, at least in their relation to natural theology; the historical expositions of Sir John Lubbock and Mr. E. B. Tylor, uniting the physical and the metaphysical with the social and moral; and the elaborate Address of Professor Tyndall, as president of the British Association, give the mournful impression, notwithstanding the surpassing interest of their reasonings and their records, that they are, unintentionally, it may be, yet ruthlessly, attempting to sever the connection of the human spirit with its God, and to send it forth a cheerless and bewildered wanderer amid cold and inexorable laws, with nothing in the future which hope can irradiate, and with no Being to whom now, or hereafter, the heart can permanently cling.

Sir John Lubbock, it is true, as has been already noticed, page 214, does pay a kind of general homage to religion when he says, that it appeals so strongly to our hopes and fears, and is so great a consolation in times of sorrow and sickness, that he can hardly think any nation would ever abandon it altogether: but of what value it can be in the midst of such natural processes as he de-

scribes, it is difficult to conjecture. He too heavily taxes our credulity when he asks us to believe that religion has its beginning in dreams, and that marriage and all other social relations have been slowly evolved through the history of savage and semi-savage tribes without any reference to revelation. His admissions, however, involve two facts—the one, the existence of a future state; the other, the influence of a supernatural Being, to whose service religion alone can bind us; without both of which, indeed, religion is valueless, if not impossible. When religion is acknowledged, the attempt to escape from the supernatural is vain. Mill has seen this difficulty; and, to meet it, has assumed the possibility of religion *without a Deity*. “Though conscious,” he says, “of being an extremely small minority, we venture to think that a religion may exist without belief in God, and that a religion without a God may be, even to Christians, an instructive and profitable object of contemplation.”\*

Christians, of course, may profitably study religious systems or beliefs which are without revelation for their basis, and “without a God” as their object to adore and obey; but there is not a trace of reliable evidence to prove the existence of a religion with nothing higher than the natural for its basis. With the natural only as the source of successive evolutions, there can be no unseen sphere into which to gaze, nor higher and spiritual Being with whom man may hold elevating intercourse. He is utterly isolated and unaided. This boldly unphilosophical banishment of the supernatural from the domain

\* “Comte and Positivism,” p. 133.

of both Reason and Faith, and the melancholy attempt, at the same time, to retain a place for religion and its consolations, very clearly show the insecurity and incompleteness of that philosophy by which these guides are themselves influenced, and by which, as with a rod of iron, they strive to rule others. The severity with which they denounce every one who refuses to unite with them in rejecting the supernatural even as an *idea*, or as an element of tentative reasoning, is absurdly inconsistent with that freedom of inquiry which they so eloquently claim for themselves; but it is not without its gain to their side, inasmuch as it is leading some earnest Christian apologists to make concessions regarding Scripture principles which have no warrant whatever from physical science. It has become fashionable to acknowledge the reign of law to such an extent as to reduce the Bible to the level of a somewhat confused and unreliable history, and to accept inferences which are telling disastrously on multitudes of our young men who have little leisure for study. While there has been too much assertion on the one side, there has been too much concession on the other. We propose, therefore, in the midst of this confusion, to mark some positions which Christian apologists may occupy with safety, in the humble hope that, while some may be dissatisfied with our suggestions, others may be aided by them.

On examining the writings of those Christian apologists who have of late been discussing the relations of the natural and the supernatural, we have been perplexed by conflicting inferences. As they reason from widely

different principles, they render it difficult to determine where the natural ends and the supernatural begins ; or, when either has begun, how much each embraces. The terms *supernatural* and *superhuman*, while suitably expressing incidental distinctions, have contributed to our knowledge nothing that is essential and permanent. The "natural" has been variously represented : (1) It is that part of the material universe which is related to man, but not including him ; (2) it is the visible universe, including man ; and (3) it is the visible universe, including not only man, but also some all-pervading, undefined, mysterious power.

Principal M'Cosh, who has rendered the highest service to philosophy in its Christian aspects, has not shown his wonted breadth and clearness in discussing the supernatural in relation to the natural. After a careful perusal of his work, it is scarcely possible to say, with any satisfactory degree of exactness, what are their boundary lines, or how much the one includes, and how much the other. The impression at one time is, that nature includes only the earth and the system of which it is a part ; at another, that it also includes man ; at another, that "in nature there is a *Special Providence*."

The subject is much complicated by his introducing this last idea, as it is itself connected with the *supernatural*. *Special Providence* is, logically, suggestive of the supernatural rather than of the natural. The confusion is increased by the proposition, that "in nature there is a moral government," and also by the proofs and illustrations which Principal M'Cosh gives, to the effect that

“God encourages the morally good,” and “will in the end punish offenders.” To describe “*special* providence” and “the moral government of God” as “in the natural,” and as part of it, is not only in itself incongruous, but it renders anything like a philosophical solution of this problem much more difficult, if not hopelessly intricate; for while special providence works through natural laws, it presupposes an *intelligent* overruling power.

Similar difficulties are created by his general remarks on the supernatural.

“We have seen,” he says, “that in this world there is a set of objects and agencies which constitute a system or cosmos, which may have relations to regions beyond, but is, all the while, a self-contained sphere, with a space around it—an island separated so far from other lands. This system we call ‘natural.’ The beings above this sphere and the agents beyond it, though, it may be, acting on it, we call ‘supernatural.’ God, who created the cosmical agencies, and set them in operation, is himself supernatural.”

But subsequently he so associates others with God, as supernatural, that when any event which would be deemed supernatural occurs, it is beyond our power to say which of these supernatural beings has been its source, or whether God himself has directly caused it, either through higher laws brought specially into action, or by his own will.

We are left in the dark as to how far angels may of themselves produce supernatural occurrences, and as to how many other beings may have the power of modifying

the Reign of Law, and influencing human history. The application of the term *supernatural*, like that of the term *natural*, is so often shifted and so variously modified, that we can make little progress in ascertaining what is within the reign of law, and what is beyond it. The obscurity is not lessened when he writes of the "supernatural coming into the lower sphere and acting in unison with the agencies already there." What supernatural is it? God, or other beings separate from him? Again, "the natural does appear operating and coöperating with the supernatural in not a few of the dispensations of God." This distinction between the supernatural and the dispensations of God, it is not easy to apprehend. We question its reality; or, admitting its reality, whether it is of the least practical value in this discussion, either with those who look exclusively to the reign of law as the explanation of *all* anomalies, or with those who advocate the direct reign of God.

Dr. Bushnell, in his elaborate and eloquent work, "Nature and the Supernatural," defines *nature* to be "that created realm of being or substance which has an acting, a going on, a process from within itself, under and by its own laws." Limiting it to the physical universe, he describes it as "a chain of causes and effects, or a scheme of orderly succession determined from within the scheme itself." "That is supernatural," he says, "whatever it be, that is either not in the chain of cause and effect, or which acts on the chain of cause and effect in nature from without the chain." By this definition man is placed beyond this chain; he acts on it, he inter-

feres with its adjustments, and is therefore to be regarded as supernatural. While this is so far true, it is defective, as representing only a part of the system of the universe. He presses vigorously the view than man has "properly a supernatural power," that he stands "out clear and sovereign as a being supernatural," and that he is able so to act from without "on the chain of cause and effect, as to produce results which the laws of nature would never have produced but for his interference." "The very idea of our personality is that of a being not under the law of cause and effect, a being supernatural. Man is an original power, acting not in the line of causality, but from himself." In these statements a principle is assumed, which, in his use of it, must be much restricted; for man is, in his own sphere, in a special sense, constantly under the law of cause and effect; and is, besides, subject to higher laws than are those economies beneath him which he subordinates to his purposes.

"The supernatural," he adds, "is that range of substance, if any such there be, that acts upon the chain of cause and effect in nature from without the chain, producing thus results that, by mere nature, could not come to pass."\*

This somewhat indefinite "*if any such there be,*" is too flickering a light to aid us reliably in traversing this intricate subject. "A range of substance, if such there be," is expected to produce what cannot possibly be accounted for apart from intelligence and purpose. Without that purpose, substance left to itself could never so

\* "Nature and the Supernatural," p. 23.

act on substance as to educe extraordinary effects, and invest them with permanent meaning. Let effects break out at any time in such a form as to be obviously independent of ordinary laws, and be at the same time morally influential through their connection with human history, and they will remain inexplicable, except in relation to the regulating will of God. If we are to comprehend aright the moral government under which our responsibility is increasing as our knowledge of nature extends, we must go farther than to hidden laws and superior agents behind the known; we must rise directly to his hand in whom all move and have their being.

In his "Reign of Law," the Duke of Argyll has, with great fairness, tested the definitions and delineations which Principal M'Cosh and Dr. Bushnell have contributed, and has himself presented valuable suggestions, yet he leaves the subject in somewhat perplexing ambiguity. While we accept his assertion that "the reign of law is, indeed, so far as we can observe it, universal," and that "nature, in the largest sense, includes all that is

"In the round ocean, and the living air,  
And the blue sky, and *in the mind of man,*"\*

we refuse to admit that law, in being universal, is absolute and exclusive, and that God acts only in and through its agency. Nor is his view of the supernatural so distinctly unfolded as is necessary. His definitions are not free from the obscurity of which he justly complains in others, and he appears to restrict the "doings" of the supernatural more than the principles of Christianity can

\* "Reign of Law," pp. 4, 11,

fairly admit. He touches the right spring, we believe, when he says, "By supernatural power, do we not mean power independent of the use of means, as distinguished from power depending on knowledge—even infinite knowledge—of the means proper to be employed?" This power, independent of the use of means, is essential to the idea of creation. Its origin is the will of God. He gave existence to means, and then used them for his manifold purposes. The real difficulty—that which many say is inconceivable—lies, as his grace states, "in the idea of will exercised without the use of means—not in the idea of will exercised through means which are beyond our knowledge or beyond our reach." But we are perplexed by the concession which he makes in the very next sentence: "Now, have we any right to say that belief in *this* is essential to all religion? If we have not, then it is only putting, as so many other sayings do put, additional difficulties in the way of religion." Belief in *this*, that is, in God's will, exercised without means, is conceivable, and though not essential to all religions, it *is* essential to Christianity. His grace assumes that the Creator did first give existence to the means, and then did, and now does, use them for the accomplishment of ends. Will, then, must have been exercised without the use of means. This he appears to admit when he says, "But the very idea of a Creator involves the idea, not merely of a Being by whom the properties of matter are employed, but of a Being from whose will the properties of matter are derived."

Surely belief in that is essential to Christianity. To

refuse this is not only to put additional difficulties in the way of religion, but to bar altogether the acceptance of Revelation and the Gospel. He says truly, "But those who believe that God's will does govern the world, must believe that, ordinarily at least, he does govern it by the choice and use of means, which means were again pre-established by himself." On this there can be no difference of opinion; God does govern ordinarily by the use of means; there is a reign of law, yet not a blind despotism of force. But in the next sentence his grace requires a concession which we cannot possibly make, when he says, "Nor have we any certain reason to believe that he ever acts otherwise." He has acted otherwise in creation, and what has been may be again. We should be sorry to misinterpret the views of one whose contributions in many respects we greatly value and admire, but we do think that he makes concessions which neutralize much of his best reasoning. If he fails anywhere, it is in discussing these fundamental principles. In a footnote in the fifth edition of his "Reign of Law," he accepts as satisfactory Mr. Lecky's reference to his views, as conveying "a notion of a miracle which would not differ *generically* from a human act, though it would still be strictly available for *evidential* purposes;" but in accepting this restricted use of a miracle, he enunciates a principle which must hamper and enfeeble all his reasoning, in reference not only to the supernatural, but to Christianity itself. "Beyond the immediate purposes of benevolence," he says, "which were served by almost all the miracles of the New Testament, the only other pur-

pose which is ever assigned to them is an 'evidential purpose,' that is, a purpose that might serve as signs of the presence of superhuman knowledge, and of the working of superhuman power. They were performed in short, to assist faith, and not to confound reason."

It is strange to find one so acute in discriminating principles, and so comprehensive in reasoning, restricting the miracles of the New Testament to merely *evidential* purposes; they serve that end, it is true, but in their profoundest connections they are more than evidential, they are eminently doctrinal. "The facts of Christianity," says Archdeacon Lee, "are represented by some as forming no part of its essential doctrines; they rank, it is argued, no higher than its external accessories. It is impossible to maintain this distinction." And Professor Bannerman, in his work on Inspiration, also refuses to separate the miracles from the dogmatic teaching of Scripture; for they are, as he believes, to a large extent identical. "In many cases," he adds, "the miracles are nothing but doctrines rendered into facts, and the doctrines only miracles interpreted into truths."

#### I. THE RELATIONS OF THE SUPERNATURAL TO THE NATURAL.

In determining the mutual relations of the supernatural and the natural, we must extend the sphere of the natural beyond that to which it has been limited, and endeavor to simplify the ideas prevalent as to miraculous agency. With much diffidence we follow the distinguished writers to whom reference has been so freely made; but the difficulties which remain are such, that,

notwithstanding all their concessions, and in large measure because of them, the whole subject needs reconsideration. Eager and ingenuous inquirers, especially among young men, pausing at almost every step, have found apparent contradictions in some of their definite propositions, and they are refusing to accept statements which have left vitally important questions in even greater obscurity than before. We enter on this part of the discussion cherishing the hope that, if we fail to satisfy the philosophic inquirer on the side of Christianity, others more competent may undertake the task of exposition when they observe the special questions which continue to tax the reason and the faith of many thoughtful students.

I. *The Natural: Its Extent.*

Nature not only includes all that is in the physical universe, at least in so far as it influences man, or may be known by him, but is expressive, in the widest sense, of all that is, as having come forth to be by the will of the Creator. Creation and the "natural" are synonymous or coequal, as now existent. Their origin is supernatural. There is nothing in nature to show self-origination. It could not of its own accord begin to be. All that is now natural was, in the beginning, the result of divine power. The will of God, omnipotent, sovereign, and inscrutable, is its source and stay.

Some, restricting nature to what is material, cannot escape from the trammels of a purely physical philosophy; while others, fixing exclusive regard on psychological truth, as having a reality and a certainty of at least as

much consequence as "the laws of the planetary motions and chemical affinities," hasten to the opposite extreme, and demand acknowledgment of the facts of their science as the only worthy foundation of philosophy and natural theology. Both err. In excluding either the one or the other, they act unnaturally; they divide what God has joined in man, a body connecting him with the physical, and a soul connecting him with the spiritual. The fact of a spiritual nature in man is presumptive evidence of a spiritual universe around him of which he is part, and the spiritual and the natural may be alike natural. Philosophy and natural theology must recognize both, because they really rest on both mental and material principles, psychology as well as physics. This view is so far held by the Duke of Argyll when he "takes the natural in that large and wider sense in which it contains within it the whole phenomena of man's intellectual and spiritual nature as part, and the most familiar of all parts, of the visible system of things." That is the limit which he reaches, but we go farther, for ethics cannot be excluded. The distinction to which Lord Brougham attempted to give permanent prominence between Ontology, or the science of what is, and Deontology, or the science of what ought to be, cannot be rigidly maintained here. The two sciences intermingle. The what is, for instance, in our physical condition, teaches what ought to be in regard to health, and has not only sanitary, but moral, obligations. Besides, conscience is part of what is; its existence is universally acknowledged; as a fact it has its place in ontology, but in function and influence it

passes into the domain of deontology, or what ought to be. It regulates conduct, it invests with responsibility, it is a determining power, not only in individual life, but in national history ; it is the basis of religion, and prepares man for Revelation.

Nor can we rest here. Philosophically, the natural must also embrace those higher rational or spiritual beings who have been created, and who in the divine government are related to MAN. Analogy in the visible, guiding us from lower to higher forms of life, and from the higher to the highest, MAN, warrants our moving upwards through a still higher series in the invisible. Analogy forbids the arrest of our course when we are passing from the intellectual in man to the confines of the spiritual in the unseen ; and we cannot stop on this threshold without doing violence to the first principles of scientific investigation. What analogy has indicated, the Scriptures directly attest. This statement may, of course, be ridiculed by the physicist, but the philosopher who has any confidence in the lessons of analogy will admit the probability of other and higher existences ; and to the Christian who has faith in the Bible it is matter of certainty. "For by Him," the Son of God, "were all things created that are in heaven and that are in earth, visible and invisible, whether they be thrones, or dominions, or principalities, or powers." Col. 1 : 16. The idea of an ascending series of rational and moral beings is familiar to every student of the Bible. And is it not illogical on the part of the mere physicist to be making perpetual reference to "higher laws" and "hidden laws,"

and to "subtle or mysterious forces yet unknown," on his own side of the question, while he denounces as "mere imagination" or "superstition" all references on the other side to those higher, hidden, and mysterious beings to whom analogy directs us, and whom the Bible describes as "ministering spirits," as "heavenly hosts"? Is it not really more unphilosophical to deny than to admit the existence of "higher spiritual beings than man"? Is it not more one-sided and less harmonious with our convictions to impose such a limit? As man is connected with all life below him, is he not also connected with all life and intelligence above him?

Such an extending of the sphere of the natural, renders easier of solution, we think, some of the more pressing problems regarding the relations of law to the supernatural.

### *2. The Supernatural.*

What is the supernatural? Where does it begin? What sphere does it fill? How give it a definite character? What is the source of its power?

The supernatural, we believe, can have no moral value to man except in its direct connection with the will of God. Apart, indeed, from such connection, the supernatural, about which so much has of late been written, is nothing more than the natural; and although the distinction may be serviceable, it can relieve the mind of no anxiety; it explains nothing. What we understand and what we cannot fully comprehend, may be thus separated by appropriate terms, but both are natural, as dependent on the creational and the governing power of

God. We acknowledge the reign of law everywhere as fully as any one can describe it; we admit its prevalence above, around, beneath; but we deny its absoluteness. It has vast sway, but still it is a subject. When such occurrences have to be explained, as iron swimming, when naturally it should sink, the mere reference to supernatural agencies or hidden laws explains nothing: it leaves us gazing in very helplessness into the dark. Be it that there is some hidden law which produced that effect, how came it to work at that juncture, and at no other? Can any certain footing be gained until we refer the process and the result to the sovereign will of the great Ruler; or can any adequate solution of the supernatural be found but in his wisdom and power?

While we gladly acknowledge the aid which the Scriptures bring, it is only in the way of confirming a conclusion otherwise reached. To this course objections have been raised; it is not fair, they allege, to begin the study of natural theology with the Bible in our hand, or to employ its light in speculations as to supernatural agencies; but this objection has been fully disposed of, we think, by the late Archbishop Whately in one of his letters to Baden Powell.

“It is enough,” he says, “if you can establish it as a strong probability that there may be a God, and that not such as we call God—the Author of all things—but simply an unseen, intelligent Being, exercising power over the world. And when it is admitted that there may be such a Being, there is no absurdity in proceeding to inquire what proofs there are of His having directly

communicated with man. When this is established, we may justly infer from such his revelation, his having probably done so and so, and being so and so, of which again we may find confirmation by inspecting more closely the other volume—the Created Universe.”\*

This appears to be a use of Scripture so perfectly fair, that we claim its aid in the same way and to the same extent, and accept its teaching as confirming the lessons of analogy.

Those who insist on “the grand truth of the universal order and constancy of natural causes as a primary law of belief, and as so strongly entertained and fixed in the mind of every truly inductive inquirer that he cannot even conceive the possibility of its failure,” and who assert that any results different from this established order are “inconceivable to reason,” must prove two things; first, that this primary law of belief renders it impossible to have intuitional evidence in favor of the supernatural; and second, that there is no evidence whatever in the natural to train or guide the mind to any legitimate conception of a Being above all nature.

In both they fail, and in both the Christian student finds support. Why should such results be *inconceivable to reason*? No evidence has ever been adduced to show that we are intellectually *incompetent* to reach or receive the idea of a supernatural Being, or that the idea is itself an outrage on any one of our intuitions. Principal M'Cosh has conclusively shown that our intuitions do not in the least sanction the conclusion that “nature has

\* “Life of Archbishop Whately,” p. 148. Edition in one volume.

nothing but physical or mundane law ;” and he has shown that they are neither inconsistent with a miracle nor violated by its history.\* Our intuitions do not rigorously limit to natural agencies alone the causes of the effects which we examine, when they may possibly have a divine origin. The very evidence which leads us to recognize uniformity in nature, fosters, if it does not create the conviction, that there *is* a higher power at work than the natural exhibits. The assertion that “faith in the supernatural is the essence of all unreason,” does violence to our intuitions. It sets aside a primary law of belief. The idea of the supernatural is not foreign to man ; its prevalence is universal. To disown it is unphilosophical. The history of our race is its vindication.

“You may interrogate the human race,” says Guizot, “in all times and in all places, in all states of society and in all grades of civilization, and you will find them everywhere, and always, believing in facts and causes beyond this sensible world called nature.”†

Although Sir John Lubbock and others have given their decision against the universal prevalence of a religious sentiment, the general opinion is opposed to their inference. All known races, savage and civilized, are connected by the idea of the supernatural in some one form or other, and by some religious customs or habits, however vague or contradictory.

\* “The Supernatural,” etc., p. 41. See also “Christianity and Positivism.”

† “Meditations sur la Religion,” p. 95.

## II. EVIDENCE IN NATURE OF THE SUPERNATURAL.

The rigid exclusion of the very idea of the supernatural, is unjustifiable. Its banishment does not harmonize with the tendencies and the guidance of nature, for we are trained to the idea by the economies which surround us. Not by intuition only, nor by human history alone, with its universal beliefs, but by the structure of the earth also, and by an ascending series of manifestations, are we constrained to look to the supernatural. In the facts of science is the basis of our argument, and their relations may be briefly described.

I. In the inorganic fabric of our globe there is indirect yet impressive evidence of a power which has been at work beyond all that physical tests can touch. In the disposition and distribution of the materials which surround us there is abundant evidence of design. The superposition and the arrangements of the rocks and the metals, represent through long antecedent ages such obvious regard to the future constitution of man, that we cannot connect such a wonderful series of facts with the blind action of unintelligent law without doing violence to reason. No law has ever been even remotely indicated which would determine the place, the thickness, and the very texture of succeeding strata, or which would explain how the silver, the gold, the lime, the iron, and the coal, are so accessible to man, and therefore so promotive of civilization. In the disposition of the constituents of the oldest rocks, there is exhibited a minuteness of care, as well as a vastness of prophetic preparation, for which

natural laws have indicated no explanation. How came all those inorganic substances, those indispensable elements without which plants perish, to be so stored up, and to be so related to future agencies, that they give forth sparingly in their season those nicely-balanced quantities which clothe the earth with green, enamel it with flowers, and enrich it with fruit? By what process of selection have the rocks established within themselves that delicately-varied texture which, with marvellous precision, yields to the sunshine, and the dew and the storm and other wasting influences, those homœopathic supplies which plants separately and unconsciously require? Can this singular storage, long ages ago, of food for future plants, have been no more than the chance result of materials in chaos striving for the mastery? No power in nature has been pointed out as possibly leading to these marvellous allocations. They are commensurate with our globe, and they compel us to look away from themselves for an explanation of their order. Our first step in physical inquiry thus brings us into the presence of what is supernatural, unless we are contented to sit shrouded in mysteries, which may be, at least in part, removed.

2. As we proceed, another fact presents itself which natural law cannot explain. Not produced in any form by the harmonious preparations above referred to, but depending on them, and so acting on the substances provided as to turn them to uses not within the range of inorganic matter alone—is *Plant-life*. Whence is it? How has it appeared? No facts have been yet discovered

which "help us even in imagination to bridge the chasm from the nonliving to the living."\* It is a result beyond physical law. Mark how it acts. Vital force overcomes the law of gravitation, and while it uses chemical combinations, is in origin independent of them. To all intents and purposes, plant-life is, in relation to the inorganic world, miraculous or supernatural. Higher laws are framed which suspend or modify chemical and mechanical forces. All that chemistry has achieved amid transformations which often startle, and always instruct us, has failed to organize a single form in which life may take up its abode. Life makes its own form, and plies its own force. Plant-life was a *new* thing in our world. It came into or upon it, supernaturally, not from it.

3. By another step we are brought to a new economy, that of animal-life, not educed, but supervened. Although animals and plants are more closely related than are plants and the soil, yet they are essentially distinct. While there are intermediate or apparently transitional forms between plants and animals, there is, as Professor Huxley admits, a great difference in these two divisions of lower life "of which nothing is at present known." Science has not connected them, nor is it likely that it ever will. While plants draw their nourishment from the inorganic, animals cannot; they live on the organic; they utilize the materials which plants elaborate; they educe results altogether beyond the vegetable economy; and they modify its laws to new ends—to ends which, in

\* "Protoplasm; or, Matter and Life." By Dr. L. S. Beale, p. 377. Third Edition.

so far as plant power is involved, are supernatural. That "life can come only from life" has been generally accepted as an established truth. We anticipate the vindication of a still more definite truth—that plant-life can come only from plant-life, and animal-life only from animal-life. Meantime, the question of spontaneous generation has been so far settled by the experiments of M. Pasteur,\* that we cannot accept, at this stage of the discussion, from any less skilful analyst, mere elaborate theories as against his conclusions or results.

4. Again, and higher, we have MAN associated in physical conformation with the lower animals, yet possessed of qualities peculiar to himself. Between man and the lower animals, near as they approach each other in some respects, there is a chasm which the utmost ingenuity has failed to bridge or fill. Neither Geology nor Travels have produced facts which accord with the reasoning of the derivationists. On their theory, man's origin should be traced to some region where he is most debased, and where, consequently, survival is, at first, most precarious. But "it is absurd," as Principal Dawson has justly observed, "to affirm of any species of animal or plant that it must have originated at the limits of its range, where it can scarcely survive at all."† Much more natural is it to suppose that Man's career did not commence at the extreme verge of possible existence. Even in those regions in which the apes nearest man

\* See p. 56.

† See Principal Dawson's admirable work, "The Story of the Earth and Man," chapter 15.

are most fully developed, the conditions of his existence are such as to render very improbable the supposition that man is descended from them. But decidedly positive testimony, as well as merely negative reasoning, is confirming the Scripture statements as to man's separate origin. Mr. Wallace has displaced Mr. Darwin's conclusions by demonstrating the "insufficiency of natural selection" to account for the development of man's brain, his soft, naked, and sensitive skin, the structure of his foot and hand, and the conformation of his organs of speech; and it has been frankly admitted by such as Professor Huxley, that man is immeasurably separated from the highest of the lower animals by his intellectual and moral nature. Professor Tyndall has ignored these conclusions and asserted that he discerns "in matter the promise and potency of all terrestrial life,"\* that "the doctrine of evolution" which he accepts "derives man, in his totality, from the interaction of organism and environment through countless ages past,"† and in particular, that "the human understanding is itself the result of play between organism and environment through cosmic ranges of time."† These assertions, as made by a president of the British Association claim respectful attention; but, when it is found that inferences only, not facts, are adduced to support them, in the interests not of theology but of science, we reject them. While evolution reduces

\* Authorized Report of the Forty-fourth Annual Meeting of the British Association for the Advancement of Science, held at Belfast in August, 1874, page xcii.

† Ibid p. xciv.

man "in his totality" to a merely material fabric it utterly fails to account for the facts of human life, in their manifold relations, intellectual, moral and religious. Man, made capable of looking "to the Unseen and Eternal," cherishes the distinctive idea of immortality. His intellect, with its power of comparing; his reason, with its grasp to generalize; his imagination, with its faculty to invent and combine; his conscience, with its recognition of right and wrong; his memory, with its power of reproducing the past; and his conceptions of responsibility, obligation, virtue, and the sanctions of law—connect him with an economy which is utterly beyond the reach of the lower animals. In his intellectual, moral, and spiritual nature he is supernatural to all beneath and around him. The germs of this highest moral nature cannot be found in either inorganic masses or in the life-forms which abound beneath his sway.

5. And must we stop here? Is Man the first and last of rational and responsible beings? Does the human race exhaust the range of intellectual and moral existence? Are there no higher beings in wider spheres, and subject to other laws than those which are known to us? Does not the finger of analogy point upward? And does not the Bible assure us that the inference is legitimate which sheds light on higher ranks of moral beings—angel, archangel, and seraph?

To examine the connections or minuter relations of the series of economies of which we form a part, is unnecessary. All that we insist on is, that by an ascending series nature does train the inquirer to the idea

of the supernatural. The idea is not merely admissible, but necessary, and its repudiation is unjustifiable. Let us not be understood as claiming the acknowledgment of a frequent interference on the part of the Creator and Preserver with the laws which he has established. They fulfil their function in a twofold capacity: they act according to their special destiny, and also in accordance with those demands which are made on them by a higher and subordinating economy. It is in that sense we hold the one economy to be supernatural to the other—plant-life to the inorganic, animal-life to plant-life, and man to both. Enough has been said, not only to prove the legitimacy of the idea, but to show that its exclusion is unscientific. To assert that the supernatural is “inconceivable,” or is “the essence of all unreason,” does violence to the facts of nature and their logical interpretation.

The bitterness with which the idea of the supernatural is hunted down, can be accounted for only by the undue influence which any single department of study, without its counterpoise, may exert over even the keenest and most powerful intellect. While all creation, visible and invisible, may be regarded comprehensively as “the natural” under the control of God, we are warranted in describing as a “supernatural” result each higher economy in the ascending series which could not have been originated by that beneath it. That power which controls the subordinate, as the vital force in the plant controls the inorganic elements around it, is in its action relatively supernatural, but in origin it is absolutely supernatural. The two ideas are harmonious, though

distinct. The relatively supernatural becomes the natural beneath the next higher economy in the ascending series. The plant economy, supernatural relatively to the inorganic fabric, becomes natural relatively to the animal economy; and so on, upward through all stages and ranks, until we reach the great source of order and life—the Lord God Omnipotent reigning.

But to acknowledge the reign of the Supreme Being, does not necessarily displace the reign of Law. Law has its sphere. It is universal; but not absolute. This is not a new discovery; it is a truth shining with as much clearness in every page of Scripture as in the “Principia” of Newton. Regarding this principle, both Science and Scripture are at one; the difference lies in the variety and extent of its applications—a difference always dependent on the progress of scientific discovery. But while we acknowledge the prevalence of natural law, and admit that hidden laws may be applied by higher beings to produce what to us are supernatural results, we cannot, in homage to an imperfect philosophy, dissociate the Lawgiver from the works and the laws which he has framed.

While admitting that the Divine Government proceeds ordinarily by the use of natural agencies, we are justified in firmly refusing the statement already adverted to, “that there is no reason for believing that God ever acts otherwise,” because the facts of science, as well as the intimations of Scripture, reveal actions without means. *To institute means* originally, is itself evidence of acting *without* means. To establish laws, is proof of

work without laws. The reign of law is not self-originated. God began it, and his Will must be the rule of its continuance. Proof is accumulating. Natural Philosophy has already demonstrated that the present cosmical system has not been eternal—that it began to be, and that it is passing on to change and overthrow, unless some power, not now acting, interpose. Geology has proved that there has been a commencement to our rock structure, and Biology has also attested for Life a beginning that is supernatural to all that previously existed. We are therefore justified in assuming that there are results without self-originating means; and it does no such violence to our intuitions and our reason to connect them with the sovereign Will of God, as it does to throw back the beginning of all things into the mists of a measureless eternity, and to assert that explanation is “inconceivable.”

Throughout the “Natural,” in the fullest extent which may be claimed for it, there is abundant evidence of the introduction of *Supernatural* influence; and if Christianity is indeed a system from the same hand which framed the heavens, it would not be in harmony with the facts which appear in the lower economies, if the manifestations of a supernatural presence in it were not at least equally distinct.

## CHAPTER XVI.

## EVIDENCE OF THE SUPERNATURAL IN CHRISTIANITY—RESULTS IN THE HISTORY OF CHRISTIANITY—CONCLUSION.

The truth which really and only accounts for the establishment in this our human world of such a religion as Christianity, and of such an institution as the Church, is the truth that Jesus Christ was believed to be more than man, the truth that Jesus Christ is what men believed him to be, the truth that Jesus Christ is God.—CANON LIDDON.

HAVING tested the historical statements in Scripture by evidence in other records, having noticed the peculiarity with which prophecy and its fulfilment have invested the Bible, and having traced in the "Natural" the mysterious tokens of a Power working in sovereignty behind its economies, we cannot escape the impression that the same Being who hath introduced into the physical world new conditions of structure and life, and into mental history those ideas which strangely or superhumanly represented future facts, centuries before their realization, hath also placed in the higher world—the Mental, the Moral, and the Spiritual—those historical facts, those miraculous changes, and those doctrinal truths which lay beyond the reach alike of man's physical and intellectual resources. Physical changes for which no known natural forces can account, and prophecies for which, in the domain of thought, no satisfactory explanation, apart from the Will of God, has ever been

offered, constitute of themselves sufficient warrant for receiving the Bible as a divine revelation, and Christianity with all its miracles as a divine system. Christianity claims to be supernatural. It reveals truths beyond the range of human thought, and that is supernatural; it records miracles, and they are supernatural. The two are inseparably inwrought with one another—the miracle of revelation itself, and the miracles which are recorded in the Scriptures. The proposal to accept the Bible without its prophecies, and Christianity without its miracles, is to deprive both of almost every vestige of moral value. The traces of the supernatural are so abundant in the Bible, and so distinctly characteristic of it, that to efface them or cut them out would be to render the book and its system of truth so utterly meaningless, that it would become a piece of incongruous and useless patchwork, with no trace whatever of its connection with the works of God in Creation, and that union of the works and the word which has recently become better known in the light of science would be unappreciated.

The systematic study of Nature alone creates a disposition to look for and acknowledge the supernatural in any higher system of truth which might be brought within man's reach, and accordingly the Scriptures are so pervaded by tokens of a controlling presence above all that is merely human, that they harmonize with the evidence in Nature of the supernatural. That there is development in the life of every individual, and that there is evolution in separate systems or economies, every one admits; but there is not the least evidence to prove, as

has been already fully stated, that the one system has been evolved from the other ; that the different systems of inorganic bodies, and of organized beings, have been evolved from some very simple beginnings ; and that the intellectual and moral nature of man has been evolved from either inorganic matter, or from some molluscous creature.

But supposing that both development and evolution should be found to extend much more comprehensively in breadth and depth than we yet imagine, the result should not in the least degree affect our confidence in the dispensations of providence and the means of grace. There are higher laws than this material framework, with its plant and animal existences, can ever exhibit ; there is the Sphere of Providence as it regulates individual, domestic, and national histories ; but beyond and above it there is the Economy of Grace, or the Plan of Redemption, and every student is responsible for an accurate knowledge of its doctrines and its duties.

On turning our attention closely to the Word of God, that the economy of grace may be known aright, we naturally expect that the same method of manifesting truth will be exhibited which appears in God's works around us ; and we are not disappointed. The natural and the supernatural reappear in forms still more distinctly recognizable, and the *progressiveness* which we have already described as apparent in the adjustments of the globe and in the development of life-forms, is still more obvious in the development of revealed truth and in the unfolded means of grace. At the very commence-

ment of the Bible, there is that profoundly comprehensive prophecy or promise to which reference has already been made, "I will put enmity between thee and the woman, and between thy seed and her seed ; it shall bruise thy head, and thou shalt bruise his heel." Gen. 3:15. All that has transpired in the history of the world is morally an evolution from the twofold truth in that broad announcement.

These facts at the very outset, taken in connection with what has followed, could not be a natural evolution of human thinking ; they must have been supernaturally communicated. The first distinctly recognized element in the revelation of truths which lie beyond the grasp of man is supernatural ; indeed, all the facts of grace must have a supernatural connection. The Bible carries in its pages abundant evidence of the supernatural, not only in its separate exalted truths, and in prophecies long mysterious, but in the whole foundation and scope of Christianity. The *Plan* of Redemption is itself supernatural, and the communication of that plan, be the means what they may, was ever dependent on the mind of a Being higher than man. If these views be refused on the plea of the universality of law, how account for those special facts, changes, and movements which have transcended all that has yet transpired within the sphere of the material, the intellectual, and the moral, in any of those lands in which the light of Scripture has never shone ? We challenge an answer. The review of "Religious Beliefs," which has been commenced, and which, we trust, will be sedulously prosecuted, cannot possibly prove that Chris-

tianity, with its ideas, doctrines, and precepts, is a mere evolution in the upward struggle of the religious sentiment in man. Its origin is distinctly traceable to a time when, historically, it could not be an evolution; and its character at the present moment is so confounding to all false religions, that they could not possibly give it originating impulse and moulding process. If they did, why are they not now originating, apart from Christianity, a similar, or some other exalted scheme?

While rejecting the natural development of religious belief, some very able Christian writers are evidently much perplexed by the assertion of strenuous opponents, that the suspension of physical laws is inconceivable, and by their repudiating the possibility of spirit in any way interfering with material processes. Of the *mode* in which spirit so influences matter as to produce changes, we have no definite information or idea, but that spirit can and does thus work is a *fact*. Whenever we raise our arm, we affect that law of matter by which it would hang by our side; whenever we cast a stone into the air, our spirit acts on matter; and so also in a thousand different ways. It does not, in the least, modify this connection of spirit with matter, that the human mind controls it in a manner distinct from that in which the Divine Spirit may be supposed to produce changes which are to us miracles in both cases. The mode of action, or the connection between two distinct existences, is inconceivable. But, in reality, the action of the Divine Spirit in making the iron swim, or in the miracle of walking on the Sea of Galilee, presents in itself no greater difficulties

than the action of the human spirit on the body, and, through the body, on the various objects by which it is surrounded.

There is an obvious source of weakness in the concession by Christian writers of absolute supremacy to what has been not inappropriately designated the "Reign of Law." It is a mistake to be ever attempting to bring the higher movements of Providence and Grace within the limits of the lower material processes of Creation; and it is no less an error to be ever reasoning as if all nature were stereotyped, fixed, unchangeable, incapable even of modification except by higher or hidden laws, which, in their own sphere, also, must be physical, or conformable in nature to that on which they act. There is, of course, the prevalence of LAW; there is the ORDER of nature, and we count on its continuance; what has been, we *expect* to be. By this principle, and its recognition, human life is regulated and utilized; but what *has* been in the past is *not* a logical warrant for dogmatically asserting that the past shall be invariably repeated in the future, and that change or reverse is in every form impossible. All that can be held by us as to the future, is an *expectation*. The facts and the laws which make up what is called the *constitution* of our present complex physical system, depended at the beginning, solely on the sovereignty of the *Creator*; and the continuance of this system, or of any part of it, must ever be associated with the sovereignty of the same omnipotent *Preserver*. All that comes within the sphere of our observation justifies our conclusions as to *law* being universal in the

*past*, but it does *not* justify our so accepting that universal law as to make it a *proposition*, rendering any change or modification in the *future* impossible.\* Law in the past warrants no more than an expectation in the future—an expectation, it is true, that amounts to practical certainty when no contrary is anticipated, but to no more, and therefore all reasoning as if it did amount to more is vitiated. It is by accepting the *absolute* certainty of the one aspect as if it equally covered what can be no more than mere *practical* certainty in the other, that many are led into error when interpreting Scripture and estimating the supernatural or miraculous. It is this really unphilosophical view which has led to the attempt to reduce every miracle recorded in Scripture to the level of law, either open or hidden. To carry through their theory, its advocates are bound to explain all that is supernatural in Christianity. To leave outstanding facts unaccounted for, or to be explained by hidden laws, is to hinder, rather than help, those who are anxiously turning their attention to this subject.

The discussion has of late been conducted through phases that may well arrest and alarm the Bible student. Amid the demands of skepticism and the concessions of too generous Christian apologists, there is great danger of our losing sight of what is fundamental and essential in Christianity. The contest is being again narrowed to Hume's almost lately unheeded position. The reign of Law is held to be more powerful than the highest hu-

\* See Mozley's "Bampton Lectures on Miracles," chapter, *Order of Nature*, and Note 5.

man testimony ; and the reasonings of Campbell, Paley, Chalmers, and others, are unfortunately forgotten or neglected by many who should add them to their armory, and wield them anew. While the phrase "reign of law" serves, with not a few, to cover their inveterate opposition to the whole Christian system, it is influencing some prominent writers so much, that they appear to be hampered rather than aided by the miracles of the Old and New Testament ; and their chief concern seems to be, so to insphere them in a kind of speculative philosophy as to harmonize them, on the one hand, with a materialistic belief in the absolute reign of Law, and on the other, with an honest acceptance of the simple yet sublime records of Christianity.

In illustration of this tendency, it may suffice to quote the following somewhat qualified statements : "Yet," says Principal Tulloch, "when we reflect that this higher will is everywhere reason and wisdom, it seems a juster as well as a more comprehensive view, to regard it as operating by subordination and evolution, rather than by 'interference' or 'violation.' According to this view, the idea of law is so far from being contravened by the Christian miracles, that it is taken up by them and made their very basis. They are the expression of a higher law, working out its wise ends among the lower and ordinary sequences of life and history. These ordinary sequences represent nature—nature, however, not as an immutable fact, but a plastic medium through which a higher voice and will are ever addressing us ; and which, therefore, may be wrought into new issues, when the

voice has a new message and the will a special purpose for us."\*

The same view is advocated by the Duke of Argyll : " Assuredly, whatever may be the difficulties of Christianity, this is not one of them, that it calls on us to believe in any exception to the universal prevalence and power of law. Its leading facts and doctrines are directly connected with this belief, and directly suggestive of it."† And after quoting passages of Scripture to connect the Divine mission of the Saviour with a certain inscrutable necessity, he adds, " Whatever more there may be in such passages, they all imply the universal reign of law in the moral and spiritual, as well as in the material world : that these laws had to be—behooved to be—obeyed ; and that the results to be obtained are brought about by the adaptation of means to an end ; or, as it were, by way of natural consequence, from the instrumentality employed."‡

Doubtless, Jesus Christ was subject not only to natural and moral laws, but to all the requirements of Redemption, and the Gospel which his disciples preached is conformable to human necessities ; but to concede all that Principal Tulloch and the Duke of Argyll demand, is to involve the whole question of Revelation and the system which it unfolds—Christianity—in a confusion from which it cannot be extricated. If their claim be granted, that the idea of law is the " very basis" of Christian miracles, and that we are not called on " to believe in any exception" to the universal prevalence and

\* " Beginning of Life," p. 86. † " Reign of Law," p. 51. ‡ Ibid., p. 52.

power of law, it must suffice to explain ALL the facts which are placed before us. If it leave some outside their conclusion, it cannot satisfy us. Every miracle must be explicable by this principle, it must be ultimately referable to law as the "basis;" and what is the issue but this, that the whole system may yet be reduced to the ordinary level of the natural, like the formerly unexplained mystery of eclipses, and we shall have no foundation on which to rest our hope as to the unseen and eternal? Divested of all evidence of the supernatural, or, in other words, of a personal controlling power, there is nothing to draw the mind upward, and give it stability and comfort. Is this theory tenable? Is this result possible? We think not. We agree with President M'Cosh when he says,

"It should not be allowed for one moment that we are not at liberty to look upon an event as springing from the supernatural power of God, unless it can be shown to be a link in a concatenated combination. There is a loose and empty style of speaking in our day about miracles being, after all, referable to a higher law, which either has no definite meaning, or may be understood in a misleading sense, and, at best, is no way fitted to gain the opponents of supernaturalism, who by law always mean one consistent thing, and that is, natural law. If it is meant that miracles can all be referred to some higher natural law, discoverable or undiscoverable, the impression may be left, that they are like meteors, or like mesmerism, simply mysteries which may yet come within natural explanation, and which cannot, therefore, be

evidential of supernatural action. If it is meant that they can all be referred to some supernatural law, known or unknown, the assertion is made without a warrant from revelation. . . . It is quite conceivable, indeed, that there may be some such law beyond our ken, but of what use can it be to appeal to a law unknown and unknowable. It is quite as conceivable that God may have wrought in our world an isolated occurrence, having no connection, physical, causal, or dependent, with any other mundane occurrence, except the profound relations which all things have one to another in the Divine Mind.”\*

We may with perfect consistency go even farther than the supposition that “it is quite conceivable that God may have wrought in our world an isolated occurrence,” and assume the fact. We have a solid foundation on which to rest; the creation of the “heavens and the earth” is an isolated occurrence, the instituting of laws is an isolated occurrence, the origin of life is an isolated occurrence, the appearance of man as rational, moral, and responsible, is an isolated occurrence; and we are warranted in denying the sufficiency of proof to the contrary. We do not claim belief that God ordinarily interferes with the processes of natural law. It has its reign. But he has interfered with law, he has interfered with the laws of the inorganic structure by the supervision of the laws of plant life, and so on upward through the stages which we have already described, until there is no resting-place for the observant inquirer lower than the Infinite and Sovereign Mind.

\* “The Supernatural,” p. 163.

If this is denied on the plea of universality of law, how account for even those facts of lesser import, which yet transcendently overtop the ordinary movements of material, intellectual, and moral being? Among the subordinate in the material, we have iron rising to the surface apparently by the will of the prophet, but really by a higher power operating through man's will as its medium, and reversing the law by which iron sinks. When the waters of the Jordan ceased their course to the Dead Sea until the Israelites passed over, there was more than hidden laws can conceivably explain. Among the subordinate in the intellectual, we have prophecy. How possibly deduce that far insight into the future from law or evolution? How have facts, centuries distant, been brought within man's grasp? The prediction and its fulfilment, after an interval of many centuries, have been completely adjusted. While there are miracles in the Christian system which perfectly harmonize with its exalted truths and doctrines, they cannot possibly be all reduced within the range of laws either known or hidden. Although some of the miracles, it is true, may be directly associated with special ends, there are others of more comprehensive import which can be brought within the sphere of no law whatever, conformably to which God must necessarily act; four may be specified which cannot be reasonably connected with any law in nature or behind it, apart from the directly controlling will of God: 1, Revelation; 2, the Incarnation of Christ; 3, His Resurrection; and 4, His Ascension.

I. REVELATION. It is in origin, absolutely super-

natural. "All Scripture is given by inspiration of God;" "Holy men of God spake as they were moved by the Holy Ghost." As truth, it is relatively supernatural to those higher and highest truths which man himself can reach in the domain of human thought, and some of which, as natural, have been inwrought with what is the subject of direct revelation. All that is unfolded in Scripture as to redemption is, in origin, supernatural, although reaching us now through the ordinary channels of a written Word.

2. The INCARNATION of the blessed Redeemer is also, in its origin, absolutely supernatural. It can be reduced to no law. It is absolute as the origin of creation. But while the first movement of the Son in his incarnation, and in that humiliation which was to be specially his own in the economy of redemption, was absolutely supernatural, it was relatively supernatural as to "the true body and reasonable soul," and also as to his life being holy and "separate from sinners." While he revealed God as he is, and man as he ought to be, he was in his human history subject like other men to the ordinary influences of material, mental, and moral laws; and he thus combined in his life the natural and the relatively as well as the absolutely supernatural.

3. The RESURRECTION of Jesus Christ, the centre-doctrine of the Christian church, has been established by most convincing proofs. The apostles had seen him, they had eaten with him, they had touched him, they had in different circumstances verified their impressions; and thereafter, "with great power gave the apostles wit-

ness of the Resurrection of the Lord Jesus." Acts 4:33. No truth is more forcibly or more distinctly presented in the Word of God. It is the fact to which Christ himself appealed as warranting his claim to the homage of the world. So irresistible is the evidence of the literal resurrection of Jesus Christ from the grave, that it is accepted as a fact, not only by orthodox churches, but even by some prominent rationalistic critics who discredit his other miracles of power, and also his ascension into heaven. As it is not, however, with the proof of the fact we have to do, but with the explanation by which some Christian writers attempt to bring this great miracle within the scope of hidden laws, we have to urge, in reply, that although such is in itself imaginable, there is not a vestige of proof to warrant the supposition, and it is utterly inconceivable and inadmissible, if it is meant thereby to dissociate the result from the directly originating and guiding power of God. The attempt to explain the resurrection of Christ by referring it to some unknown law, increases rather than lessens the difficulty, by constraining us to read the New Testament record in a different sense from that which is obviously implied. We cannot place the fact of the resurrection within the sphere of hidden laws without doing violence to plain historical statements, for Christ himself has expressly declared that he had power over life and death; or, in other words, that he was above the sway of what we term Universal Law. "Therefore doth my Father love me, because I lay down my life that I might take it again. No man taketh it from me, but I lay it down of myself,

I have power to LAY IT DOWN, and I have power to TAKE IT AGAIN." John 10:17, 18. While *our* human nature has been *given* to us, he assumed this nature; "He took to himself a true body and a reasonable soul." These and similar declarations reveal in Jesus a power absolutely independent of those natural laws or forces, which he used supernaturally or miraculously in accomplishing the great ends of his mission.

4. In the ASCENSION of the Lord Jesus we have another FACT, dazzling in its splendor, and revealing supernatural action. His bodily ascension, in the presence of his disciples, while it overbore and set aside the universal law of gravitation, has given us no glimpse of any other more powerful counteractive law, nor any warrant, indeed, for supposing that such a law has ever existed. The evidence of the fact itself is complete, and the manner with which it is described has singular impressiveness. "And he led them out as far as to Bethany; and he lifted up his hands, and blessed them. And it came to pass while he blessed them, he was parted from them, and carried up into heaven. And when he had spoken these things, while they beheld, he was taken up and a cloud received him out of their sight." Luke 24:50, 51; Acts 1:9. There is no possible explanation of these words but that which their obvious meaning suggests. Jesus *has* ascended to glory; and we think it unnecessary, with those who accept the Bible narrative as true, either to state the objections of such as Strauss, or the answers of such as Ebrard. There *may* have been the adaptation or the introduction of higher laws to facilitate

ascent, thus constituting here, also, relatively supernatural action ; but in the outgoing of the will and power of Jesus there was the absolutely supernatural. Like the incarnation and the resurrection of Jesus Christ, his ascension is mysterious in its process ; it cannot possibly be explained by physical science ; it is a fact, at the same time, which is but the natural—we may add, the inevitable—outcome from the resurrection. Jesus had risen ; and as he was not again to die, it was essential that he should pass from his earthly existence in a supernatural way ; and it was consoling to his sorrowing disciples, as it is now satisfactory to every believer, to have the facts of his departure distinctly stated, although that departure to a higher sphere cannot be proved by even the ingenuity of modern science to have been in the least degree conformable to any ordinary or known or hidden laws. But the fact is certain, like the resurrection itself ; and as the resurrection is but the beginning of the ascension—as it is in his grave the first ray of his future glory shines—both facts must stand or fall together.

#### IV. RESULTS IN THE HISTORY OF CHRISTIANITY.

In Revelation, the incarnation of Christ Jesus, his death, resurrection, and ascension, apart from many other impressive events, there is such a singular yet perfectly harmonious combination, not only of miracles but of doctrines, as renders Christianity easily distinguishable from every other religious system, and as naturally leads every unprejudiced student to anticipate corresponding RESULTS. And so it is. The history of

Christianity in the world is its best interpreter; it reveals a series of changes so distinct as to be easily traceable in the character of individuals and of nations; it represents the evolution of doctrine in the higher life of renewed men, and it is ever exhibiting all those remedial influences which faith in Jesus Christ enables man everywhere to appropriate.

As this subject is too extensive to be fully discussed within the space at our disposal, we must restrict ourselves to a brief review of those results which depend on doctrines chiefly related to the PERSON of Christ, and which are manifested in *individual, social, and national life*.

1. The *doctrines* to which reference has been made create a new motive to action and sustain an ennobling aim. Love and holiness are their natural fruits. In the multifarious religions of the world, this motive to action and this aim were absent. There was an abiding and ever deeply-felt want, which they utterly failed to remove or lessen. The sublime moral maxims of oriental nations—the early learning of Egypt—the philosophic and æsthetic culture of Greece—and the jurisprudence of Rome, rising from the midst of an all-embracing idolatry—never produced any results approaching those which the preaching of the gospel has diffused through every generation. For at least six thousand years, the world has done its best to repress evil and lessen sorrow, but has failed. Untaught by experience, the world continues its vain struggle. Philosophy has long striven to solve the problem of human life, and has failed. Poetry has

long sung its most ennobling strains, and has failed. Political wisdom has run its course of secular expedients, and has failed. Unaided humanity has had no spirit with power to rise above its own dark and troubled waters, and evolve from its chaos light, beauty, and stability. But in the doctrines of the cross, in the gospel revealing the love of God in Christ Jesus, there is the supernatural introduction of a new motive power—there is that which is changing the intellectual and moral aspects of the whole world. Although heathen philosophers understood not the gospel, the olden prophets proclaimed its power; although earliest poets could assign it no place in their strains, it gave a tenderer thrill to David's lyre, and with it Solomon enriched his song; although to the Greek it was foolishness, and to the Jew a stumbling-block, it became mighty to the pulling down of the strongholds of Satan; and although Saul of Tarsus constrained men to attempt to swear it down, it subdued his own heart, and led him, in the face alike of friend and foe, henceforth with unfaltering tongue to proclaim his one great resolve: "God forbid that I should glory, save in the cross of our Lord Jesus Christ."

The doctrines of the cross, as dependent not on a system but on a person, Jesus Christ, gave the motive power that was needed by the world to connect, through grace, its knowledge of the right with the doing of it. In the wondrous truths of the incarnation of the Son of God, of his death, of his resurrection, and of his ascension, is much of the vitalizing power which, by the Holy Spirit, is reanimating a perishing world, and enriching

it with moral loveliness. These truths represent pre-eminently the love and the wisdom of God as originating that which, in the gift of the Son, was absolutely supernatural. "For God so loved the world, that he gave his only begotten Son, that whosoever believeth in him should not perish, but have everlasting life." John 3:16. "And we have seen, and do testify, that the Father hath sent the Son to be the Saviour of the world." 1 John 4:14. This giving of the Son—this "God sent his Son"—can, by no conceivable process of thought, be referred to any law. Its secrets are in the divine counsels. With what singular exactness the apostles' delineation of the life and character of Jesus corresponds with the simple yet sublime announcement of the Evangelist! "God sent not his Son into the world to condemn the world; but that the world through him might be saved." John 3:17. "Let this mind be in you, which was also in Christ Jesus: who, being in the form of God, thought it not robbery to be equal with God; but made himself of no reputation, and took upon him the form of a servant, and was made in the likeness of men; and being found in fashion as a man, he humbled himself, and became obedient unto death, even the death of the cross. Wherefore God also hath highly exalted him, and given him a name which is above every name: that at the name of Jesus every knee should bow, of things in heaven, and things in earth, and things under the earth; and that every tongue should confess that Jesus Christ is Lord, to the glory of God the Father." Phil. 2:5-11.

2. These and similar descriptions separate the Bible

from all other books, and Christ Jesus from all other persons. In the announcement of his advent, and in the records of his life, there is a history which rises above all histories. Christ can no more be classified with mankind, than his miracles can be reduced to ordinary events. His whole life attests the truth that he is from above, and that he CAME to save the lost. Christianity is, in this view, "an historically superhuman movement in the world, that is visibly entered into it, and organized to be an institution in the person of Jesus Christ. He is the central figure; he is the unfailling power; and, with him, the entire fabric either stands or falls."\* Christ was himself a revelation of God. "He was the brightness of His glory, and the express image of His person;" he was "God manifest in the flesh." Humble as he was among men, he willed to be a king, and his ministerial work was one continued proclamation of his absolute and unrivalled sway; and when that ministry on earth had terminated, he encouraged his disciples by the declaration, "All power is given unto me in heaven and in earth," and by the thrilling promise, "Lo, I am with you alway, even unto the end of the world." As we study his character and his claims, we are constrained to acknowledge the truth of Isaiah's prophecy: "And his name shall be called Wonderful," Isaiah 9:6; and "we discover, as did the first Christians, beneath and beyond all that meets the eye of sense and the eye of conscience, the eternal Person of our Lord himself. It is not the miracles, but the Maker; not the character,

\* See Bushnell's "Nature and the Supernatural," chapter 10.

but the living subject ; not the teaching, but the Master ; not even the death or the resurrection, but He who died and rose again ; upon whom Christian thought, Christian love, Christian resolution, ultimately rest.\* To him alone believers on earth, like the ransomed in glory, turn as "all their salvation and all their desire."

The person of the Lord Jesus is the very foundation of Christianity. He is its source and its support. He is its embodiment. As well take the sun from our system, as Christ from Christianity. Philosophy can exist apart from the philosopher, science from the scientist, art from the artist ; but not so Christianity. Platonism may remain though Plato may be himself forgotten, astronomy may remain though Newton or Laplace may not once reappear in the student's memory, and so of all human systems ; but Christianity without Christ evanishes as intellectual vapor,† and becomes alike powerless and unprofitable. This lowly Jesus has become the great centre of thought in the civilized world. Men cannot rest *in* his teaching alone, or his doctrines ; they see in them all HIMSELF, and everywhere they are now in the profoundest sense acknowledging his intellectual and moral pre-eminence. Religious controversies have removed from their old positions, and they are concentrating their forces around the person of Jesus. The highest scholarship, the most cultivated taste, and the profoundest philosophy, have united their resources in analyzing his character and in portraying his life.

\* Liddon's Bampton Lectures on "Our Lord's Divinity," p. 146.

† *Ibid.*, p. 127.

Intellectually and emotionally, is the prophetic declaration being fulfilled: "And I, if I be lifted up from the earth, will draw all men unto me." Thought and feeling from opposite poles are drawn to him, whether in knowledge, in faith, in love, in adoration, or in hate and fear. Among learned men, he is in the midst now as when in the temple he "was sitting in the midst of the doctors asking them questions," and taxing their learning and their wisdom. Skepticism and unbelief are accustomed to examine his claims, and ever as they strive to escape they turn to look on him, as Peter met his glance when in cowardice he swore he knew not the man.

3. Not only are the fundamental conditions and the essential truths of Christianity miraculous in their origin, but they are supernatural in the results which they produce. Its ideas of God, its clear delineations of heaven, its demands of holiness, of love, of patience, of self-denying toil, not for the indigent only, but for enemies, its commands to believe in the Lord Jesus Christ, and its fulness of consolation through the Holy Spirit the Comforter, are blessings which are inseparable from true Christianity, but which are discoverable in no other religious system. Truly, Christendom is not the creation of mere human thought and will. Guizot has informed us that in studying for the annotation of Gibbon, he became impressed "not only with the moral and social grandeur of Christianity, but with the difficulty of explaining it by purely human forces and causes."

a. The fruits of Christianity in *individual* character are apparent. Union to Christ by faith is the condition

of enjoyments which never cease, it is the source of that "peace of God which passeth all understanding," and intensifies that love through which believers become more than conquerors in their constant struggle with spiritual foes.

Christianity, originated in love, is manifested in every man by himself, and by him in the world. The perfection of the individual is its first aim; and the second, the right use of that perfection in the world for its improvement and happiness. It takes man as he is, sunken and debased, or intellectually equipped and socially refined, and, creating in him the consciousness of sin, stimulating his sense of responsibility to the all-seeing and just Ruler, and leading him to feel, in the solitude of guilt, as if none existed save himself and his God, it directs him to that blessed Redeemer who hath said to the guiltiest and the vilest, "Come unto me, all ye that labor, and I will give you rest." Thus may those whose life has been most enslaved to sin become "heirs of God," and exclaim, "Behold what manner of love the Father hath bestowed on us, that we should be called the sons of God." They are "new creatures," and strive to meet through grace all the demands of their higher sphere. The perfection which is to be reached is special; it is not exactly that of an unfallen being, but, resting on a distinct foundation, and having new characteristics, it is specified as "perfection in Christ Jesus." The affections purified, the understanding enlightened, the will submissive, the conscience made sensitive and strengthened, the imagination regulated, the love abounding "yet more and more in knowledge and *in* all judgment," are univer-

sal results in Christian life. Every man is summoned to know, to act, and to be for himself alone as accountable to God. He is encouraged to look "into the perfect law of liberty" that he may learn—to learn that he may be a "doer of the work," and to do that he may be "blessed in the deed." What he knows, he is to apply; what he receives, he is to distribute; what intellectual, moral, and spiritual influences benefit his own life, he is freely to communicate to others, for the common good. Thus does Christianity blend the doctrinal and the practical, theology and religion, the sublimest truths with the commonest duties of daily life.

*b.* In *social*, as well as in individual life, the assimilative influences of Christianity are distinctly visible. The power which, in the breast of every believer, subdues and controls his warring passions, no less effectively commands and regulates the surging movements of society. Without demanding any change in the external arrangements of society, it has infused a new spirit, broken down the middle wall of partition between Jew and Gentile, and revolutionized the old estimate of distinctions between high and low, learned and unlearned. It has rebuked selfishness in every form; and care for the poor, long regarded as no part of society at all,\* but only as materials to be wasted in war or in the drudgery of home services, it has not only inculcated by new arguments, but sustained by new motives.

At the time of Christ's appearing, a kindly regard to the poor had perished amid even the stirring injunctions

\* See Bushnell's "Nature and the Supernatural," p. 241.

of Moses, the psalmist, and the prophets. Selfishness was supreme. The ordinary duties of common philanthropy were but feebly if at all discharged. Mutual love, in its noblest sense, had ceased to be recognized by the Jews as a principle of action. Because distasteful and unpopular, the topic found no place in the disquisitions of the moralists or the religious expositors of that degenerate age. The Sadducees had no motive by which to stimulate or sustain self-denial, and the Pharisees, teaching, with untroubled conscience, ungrateful children to evade the fifth commandment, and defraud their parents of that filial aid which the law of God and the instincts of their own nature taught them to render freely, either shunned or disowned the subject. In the midst of this heartless laxity of moral principle Jesus appeared, and, while by his life he established principles which completely revolutionized the ethics of the world, he spoke to the heart and conscience of man with a spirituality and power never before approached by prophet, or priest, or psalmist.

In his ministry, human slavery lost the foundation which tradition and custom had given it, and its last argument perished in the overwhelming fulness of that gospel which was henceforth to be preached to all nations. Woman also was assigned her rightful place; but although eighteen centuries have passed since Christianity restored and honored woman's claims, her sunken condition in the midst of Eastern civilization is still as signal as it is in those dark places which savage ferocity wantonly stains with human blood.

Not only has Christianity shielded the poor, and uplifted woman, but it has diffused those genializing influences which bless the outcast, the maimed, the diseased, and the infirm. It pleads for them, and shelters them in the asylum, the almshouse, and the hospital. On objects or themes like these the eloquence of heathenism never spent its strength. In Christianity alone can we find a higher eloquence plying its power on behalf of the suffering poor than ever thrilled the councils and the courts of ancient heathenism. In short, in no part of the world has there ever been raised any social structure so beautiful in aspect, so lovely in proportion, so truly generous in spirit, and so effective in methods, as that which Christianity creates and adorns.

c. Those forces which beneficially operate in society, permeate with no less effect communities and *empires*. As the individual is the type of society, so society represents national character. As society retains its external aspects, even when animated by the spirit of Christianity, so nationalities may be expected still to retain their distinctive characteristics, when they are all one in spirit. The idea of a world-wide dominion does not require the absorption of all nationalities into one vast empire, but it represents them associated as are members of the same family, who yet differ from one another. Not the kingdom of this world, but its "kingdoms," are to become the kingdoms of our Lord.

This oneness of many kingdoms, with widely differing forms, is dependent on the oneness of principle which Jesus Christ himself embodies. Love and holiness are

its characteristics. Love is its compacting power, and holiness its universal expression. The mind which was in Christ is to be in the Christian. The world is to become of "one mind in the Lord." To this universality of empire the Scriptures direct us. The unity of God and the unity of the human race, as taught in Scripture, presuppose the ultimate unity of the kingdoms of the world. Diversity of races and of nationalities does not necessitate the abandonment of the idea that Jesus shall be acknowledged "Lord of all." Christianity does not obliterate, in the individual, mental characteristics, or produce a monotonous uniformity. After conversion, each continues *himself* as before it. Though modified, constitutional qualities abide. The prophets and the apostles were one in spirit, though easily distinguishable in their representation of that spirit. The genius of Isaiah, the pathos of Jeremiah, the statesmanship of Daniel, the philosophic thoughtfulness of St. John, and the reasoning power of the apostle Paul, not only retained their lustre undiminished, but had their intensity increased by faith in the truth as it is in Jesus. Thus also may *nations* be so diversified as to be apparently antagonistic, while in reality they shall be of *one mind* in Christ. In this idea of a universal sway over the human mind by one Lord, there is surpassing grandeur. That the idea of a universal kingdom had a place in Babylonian, if not indeed long before in Egyptian history is certain. Nebuchadnezzar's dream, at least, contemplated a kingdom that shall "not be left to other people, but that shall break in pieces and consume all those kingdoms, and that shall stand for

ever and ever." Cyrus, Alexander, and Cæsar attempted to realize this idea, but they utterly failed.\* The one *true* idea was couched in the first promise to our first parents, and it had continuous and consistent development in the Scriptures until the close of the Old Testament; but the Jews mistaking the import of revelation, looked for a material organization, and they missed the truth.

As an idea, it is surpassed in grandeur only by the history of the means through which it is to be realized. Great conquerors sought to influence nations through their princes; they treated only with the mighty. But Jesus began with the lowest; he went to the basement of society to uplift and permeate its whole mass; he was born among the poor, his lot was in their midst; he was identified with them, and made them the special objects of his ministry. To the disciples of John, who put the question to him whether he was the Christ, he answered, as evidence of his mission, "And the poor have the gospel preached to them;" and now only is the world awakening to a just conception of the marvellous sublimity of the blending benevolence, wisdom, and power which appear in the very commencement of the Saviour's work.†

The moral magnificence of his undertaking is all the more impressive when we remember that this kingdom has to be established by the diffusion of principles which are ever intensely distasteful to human nature. Not only did Judaism and heathenism dislike the demand for inmost holiness as the basis of external consistency, but

\* See Luthardt's "Fundamental Truths of Christianity," pp. 227-230.

† See Bushnell's "Nature and the Supernatural," chapter 10.

they regarded with inveterate repugnance the very thought of a universal religion which should subdue the whole world and extend throughout succeeding generations.

How, therefore, could Christianity be the natural outcome of powers which sought its instant destruction through the crucifixion of the Saviour, and which have for the last eighteen centuries relentlessly resisted its extension?

The inference that Christianity is a mere historical result, evolved by slow changes from ancient religions, though plausible, is really futile. That there was a preparation in mental conditions for the Son of Man's advent, as there had been in material conditions for our first parents, that there were "unconscious prophecies of heathenism"\* pointing to Jesus as the "Desire of all nations," few will be disposed to deny; but that conclusion is widely different from the notion that Christianity is the mere natural growth of the old religions of Paganism, as man is, in the belief of some, the lineal descendant of the monkey tribe. Voltaire and his school revelled—and blundered egregiously as they revelled—in their reasoning, that Christianity was the puny offspring of Eastern religions. We do not require to doubt or deny that in false religious systems there may readily be found some truths which have their counterpart in Christianity; but Christianity is so far in advance of them all, that no one can really trace its outcome from Paganism; it has also diffused practices which have no counterpart in any other system, and for whose existence there is no satisfactory

\* See Trench's "Hulsean Lectures," 1846. Introductory Lecture.

explanation whatever, apart from the Bible. It has no originality, if it is regarded merely as an illustration of moral truths embodied in ancient philosophy, or if it is held to be no more than the last utterance of some dogmatic traditions which have in varying forms existed in all religions.\* Students have spoken too hastily. The "Science of Religion" has not yet assumed any definite outline. Max Müller admits this.† We can afford to wait, and also to welcome any other discoveries that may be made. The bitter inferences of Voltaire have been rejected even by those scholars who are indifferent to the Bible, and we can look with calm interest to the growth of a science of religion, promoted by the recent discovery of authentic documents of the most influential religions in the ancient world. The Bible has nothing to fear from the Canonical Books of Buddhism, the Zend-Avesta of Zoroaster, and the Hymns of Rigveda, although revealing what religions were existing before that old mythology which was a ruin even in Homer's time.‡ Tested by their practical results they all fail; they cannot be compared with Christianity in its love, in its holiness, in its missionary spirit. While these religions are limited to Asia, the gospel has its sanctuaries in all lands, and its glorious aim is, through the grace of God and by his Holy Spirit, to reach every heart and home in the world.

*d.* In the face of all this, we are met by the repeated assertion that Christianity has failed, that it is effete, and

\* See De Pressensé's "Religions before Christ," concluding chapter.

† Max Müller's "Chips from a German Workshop," p. 378. ‡ Ibid.

must be abandoned. But to this it may be answered, Is it true? Have ever sunken tribes been found which it has failed to uplift and enrich? Has ever nation been found which has been ruined by the adoption of its principles? Is not the continuous history of Christianity the refutation of such assertions?

The triumphs of the gospel in Asia, Europe, and Africa, during the earlier centuries, have arrested the thought of even the most indifferent, and have taxed the philosophy of the skeptic to account for their completeness.

In comparatively recent times, the most ferocious and debased cannibal tribes have been subdued by the influence of the gospel—the most sunken tribes in the world—men of all races, of all grades in society, and of all stages in culture, have rejoiced in the blessing of which, through faith in Jesus Christ, they have become partakers.

It were easy to adduce ample testimony to the power of the gospel in rooting out the most debasing social practices and in overturning long-established systems of idolatry. The records of missionary enterprise vindicate the claim of the gospel to be the one mighty power which is destined to revolutionize and exalt the world; but we can do little more than refer the reader to some of them. The South-Sea Islanders, for instance, physically a noble race, and favored with nature's richest products, were idolaters, destitute of principle, ferocious in war, murderers of their offspring, and stained with the blood of human sacrifices, but have been so changed as to present, in some instances, the comeliness, the spirit, and grace of

civilized communities. And the Fuegians, small in stature, filthy, and almost hopelessly debased, have been in part reclaimed and uplifted. Dr. Livingstone, whose impartiality all acknowledge, gives it as his conclusion, after carefully noting the effects of Christianity on many hundreds of the Griquas and Bechuanas, and comparing them not with what appears in Britain, but with practices in neighboring tribes, that if the whole subject were examined in the severest and most scientific way, the changes effected by the missionaries would be reckoned unquestionably very great. No tribe has ever yet been found so sunken as to be beyond the power of Divine truth, when presented in the gospel message. In every part of the habitable globe where the voice of the missionary has been heard, most notable changes have been effected, and the sufficiency of Divine grace has been most distinctly manifested. The boasted systems of the East have proved barren of similar results. There is in them no missionary spirit, because there is, and there can be, no love as a motive force. Mohammedanism, Buddhism, and other systems, are now circumscribed, apathetic, and monotonous; they seek no outlet, they are destitute of enthusiasm, and are, therefore, without missionaries to the most distant parts of the earth.

#### CONCLUSION.

The field which lay before us at the outset of these lectures has been traversed, and if we have found in our survey more to encourage than to perplex the Bible student, our object has been gained. Studies which have been

prosecuted in the various departments of Natural Science, Archæology, and History, sometimes with the avowed object of confuting the Bible, as well as many of those incidental inferences which have been the result of purely scientific inquiry, have so often become the sources not only of defence, but of singularly attractive and instructive expositions of Scripture passages which before were somewhat obscure, that we may well rejoice in the assurance that whatever difficulties remain shall disappear in the fuller light of extending knowledge, and that fail or change what may, the "Word of the Lord endureth for ever."



## NOTE BY THE AUTHOR.

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A NEW attitude of hostility to the Bible has been assumed by influential scientists in Britain, as represented by PROFESSOR TYNDALL. In his inaugural address in Belfast, as President of the British Association, he boldly advocated the Evolution Theory in its most materialistic form, and in the discussion which the address evoked in various parts of the country, its leading principles were as boldly controverted. They are briefly noticed in this edition, chapter 15. PROFESSOR TYNDALL has renewed the discussion in a paper which he has just published in the *Fortnightly Review*, and as it could not be noticed in its proper place in this edition, owing to its having nearly passed through the press, the author takes the opportunity of referring to it here.

His paper is not written in the spirit in which students dealing with questions involving issues so momentous should strive to emulate or exemplify. Many, who have read nearly all that he has written with a delight which has scarcely been lessened by their inability to accept every one of his conclusions, or to yield to all his assertions, will regret to find him, while bitterly denouncing theologians, losing the calmness of the philosopher

in the impatience of the partisan and the dogmatist. He should with equanimity bear to be told that his argument in support of the evolution theory is incomplete—that important links are wanting; that while the sciences have multiplied their facts and illustrated their laws within well-defined spheres, they have supplied no means of connecting these separate spheres. Evolutionists themselves are constrained to admit that the chasms are yet unbridged, and therefore impassable, between an atom and life—between matter without life and matter with it, and between animal life and human consciousness, with its associated moral distinctions, philosophic power, and religious aspirations.

“It is absolutely and for ever inconceivable,” says DU BOIS REYMOND, “that a number of carbon, hydrogen, nitrogen, and oxygen atoms should be otherwise than indifferent as to their own position and motion, past, present, or future. It is utterly inconceivable how consciousness should result from their joint action.” On this point PROFESSOR TYNDALL is compelled to make concessions both to DU BOIS REYMOND and Mr. MARTINEAU which completely invalidate his reasoning. He frankly confesses that “this is the rock on which Materialism must inevitably split, whenever it pretends to be a complete philosophy of the human mind.” And yet with this admission in his hand, he severely rebukes those who reject his theory on account of its sheer defectiveness.

In the *Fortnightly Review* he puts forth his strength in combining several illustrations for the purpose of

proving that in matter there is a "formative power" which is sufficient to educe and account for all the modifications of terrestrial life. With characteristic grace and eloquence he describes the changes through which water passes as it disappears in vapor, and, frozen, falls in "stars of snow;" the rush of vital action through the slender branches of a fern from Ceylon "until the unsightly twigs broke forth into a mass of fronds;" the changes through which the acorn passes from the time of its bursting in a genial soil, until, as a majestic oak, it spreads its branches in the sun; and he afterwards briefly indicates what physiologists tell us of the origin and growth of the human body. He assumes that the "formative power" which came into play in the snowflake, and which existed in the water and the vapor, though not manifested by either, is the same power which is at work in the fern, the oak, and the human body. By this "formative power" are built all life structures; and thus he sees in matter "the potency of all terrestrial life." He *believes* this, and therefore he not only asserts his dogma, but claims for it universal acceptance. If his assumptions were correct, the evidence of an all-embracing evolution should be met everywhere. But it is not so. Continuousness is nowhere visible, and there is not the slightest warrant for supposing that it is the same formative power which builds the crystal, the fern, the oak, and the human body. There is something distinctive in each. There is that in the crystal which separates it from the fern, and that in the oak which separates it from the human body. They never even approximate-

ly coalesce. Evolution is for ever represented separately in the crystal, the snowflake, the oak, and the human body. Neither PROFESSOR TYNDALL nor any other evolutionist has succeeded in showing an all-pervading "formative power" controlling inorganic and living matter. And even if it be granted that there slumber in atoms different formative powers, which come into play successively in congenial circumstances, so as to produce different structures, mineral, vegetable, and animal, there is not the slightest evidence of continuousness or transmutation. The biologist has failed to connect spontaneous generation with inorganic matter; the physiologist has failed to connect with the processes in the body the facts of consciousness; and throughout the geologic volume, vast in its lapse of ages and in its extent of space, not a single vestige has yet been found of those transmutations of structural form which are indispensable in proof of evolution. The geologic volume is decidedly unfavorable to the evolutionists. They are baffled by it at the very outset. In the earliest organism yet known, the Eoozoon, they have not only found no support to their view, but, as PRINCIPAL DAWSON states in his recent very interesting and instructive work, "The Dawn of Life," the "oozoon itself bears some negative though damaging testimony against evolution." And in reply to those who assert that such an organism as eoozoon may include potentially all the structures and functions of the higher animals, and that it is possible that we might be able to infer or calculate all these with as much certainty as we can calculate an eclipse or any other physical phe-

nomenon," he says that "there is not only no foundation in fact for their assertions, but it is, from our present standpoint, not conceivable that they can ever be realized." After referring to the limited data which they use, as not warranting their deductions, PRINCIPAL DAWSON justly adds, "Those who think to build a philosophy and even a religion on such data are mere dreamers, and have no scientific basis for their dogmas."

In short, the advocates of an evolution whose origin is in atoms, have utterly failed to give any plausible account of the facts of modern civilization, of the philosophy of human history, and of the doctrines and precepts of Christianity. The present aspects of the controversy recall KIRCHOW'S conclusion: "Of all kinds of dogmatism, the materialistic is the most dangerous, because it denies its own dogmatism, and appears in the garb of science; because it professes to rest in fact, when it is but speculation; and because it attempts to annex territories to the domain of natural science before they have been fairly conquered."

This discussion, so far as it has yet gone, has done good in showing the weakness of the argument in support of materialism, and the weakness also of Christian apologists in making unnecessary and mischievous concessions, the consequences of which they do not foresee.

FREE MIDDLE MANSE, Paisley,  
November 5, 1875.





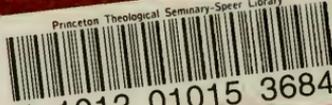








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