

a black roof, all well contrasted with the bright green of the vine. The roof does not go up to a ridge or gable, but is broken through by a short vertical portion, in which are long narrow windows, serving to light the loft over the room. This, in its turn, is roofed with hip rafters. On the two points of the ridge is a ball ornament, on which is perched a little golden star. A chair which belonged to Swedenborg remains in the summerhouse. His organ lately stood there, but has passed into the possession of Mr. Hammer, in whose museum, in Byström's Villa, it may be seen.

"The garden is fenced in, and divided from the street by a palisade of such great boards as can only be seen in a country where wood is in great abundance."

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## THE THEORY OF EVOLUTION AND NEW CHURCH PRINCIPLES

BY HAROLD C. CRANCH

It has been thought that the Writings teach little about evolution, either for or against it. But, since evolution defines cause in nature, the Writings are full of references to it. So, of the doctrine of materialistic evolution, we read: "Only a person bereft of reason, who is ignorant of what life is can think that all things are from nature, and that even life comes from nature. Nature cannot dispense life to anything since nature in itself is wholly inert" (*D.L.W.* 166).

Many evolutionists, from Darwin to Sir Arthur Keith and G. G. Simpson, teach a materialistic origin and development of life. Darwin and Lamarck accounted for life and the change and origin of species by natural accident from without. Haeckel, the famous German scientist, claimed that spontaneous generation produced the first protoplasmic cell from which all things came. DeVries and Weisman held that within that protoplasm all germs of possible future developments were present, with one strain or another dominant, producing the various species.

Swedenborg was aware of various nature theories of creation. In the *Divine Love and Wisdom* he says: "He who does not know that there is a spiritual world, and that it is distinct from the natural world, like the prior and the posterior, cannot know anything about

the influx of the spiritual world into the natural. This is the reason why those who have written about the origin of vegetables and animals could not do other than deduce the origin from nature; and if they deduce it from God, they can do no other than think that God has from the beginning implanted in nature the force of producing these things; not knowing that there is no force implanted in nature; for nature is in itself dead, and contributes no more to the production of these things than an instrument contributes to the work of a mechanic, which if it is to do anything must be continually moved. It is the spiritual, drawing its origin from the Sun where the Lord is, and proceeding to the ultimates of nature, which produces the forms of vegetables and animals, and presents the marvels that exist in both kingdoms, closely surrounding them with matters from the earth that these forms may be fixed and constant" (n. 340).

Other teachings will affect our thought about the evolution of species. So in the *Divine Providence* we are told that all things are kept in the order into which they were created (n. 55). The *True Christian Religion* teaches that nothing can be produced from animals and plants but what is similar to itself and to its own (n. 145).

There are many references to the fallacies embodied in modern evolutionary theory, but to do justice to it, we must view the subject as a whole. The mechanistic theory of nature formulized by the philosopher DesCartes laid the groundwork for present theories. He opposed the dogmatic, irrational theology of that day, demonstrating that there is order and law, and therefore mechanism, in every aspect of nature. This led to the effort to prove that law was inherent in nature, and that chemical changes within matter produced life and all its developments.

#### GENERAL THEORIES OF CREATION

Essentially there are four creation theories today. First: the fundamentalist, creation by fiat; that God created all things as finished products by His Word, out of nothing. The Writings reject this theory immediately, showing that this is not the way the Lord operates—that nothing can be produced out of nothing.

The materialistic, evolutionary theory claims that nature is her own creator, and develops by blind chance, the survival of the fittest, and natural selection, or by emergence and mutation. It denies the

necessity for a spiritual world or a Divine Being to create and to control His creation. Causes are thought to be inherent in nature herself. Higher forms take their rise from lower ones. Nature herself is either given the attributes of deity, of existence from eternity—an entity ever existent, without beginning, and possibly without end—or else, in the tradition of the religionists, it came into being by a distinct creative act, without means, by fiat, and since has developed without interference.

A third view is closely allied to the second, and is dual—finalism, and vitalism. Both are modified forms of the common theory of evolution. They use the facts and theories of materialistic evolutionists, but overrule them with a Divine intervention and an original creation. They acknowledge spiritual or vital forces acting in and through nature. Vitalism merely says that there are vital forces immeasurable by science present in or affecting matter, but that there is no evidence of purpose. So it points out that many dominant species have arisen in turn: Dinosaurs in their time, man in the present age, and perhaps insects in the ages to come. Finalism, such as that of Lecomte du Nouy teaches that men are the final form, and now evolution operates for the development of his mental powers.

A fourth teaching can be derived from New Church principles, to answer the basic objections to these evolutionist theories.

These various theories, materialistic, vitalistic, and finalistic, have this in common: that the first cell, once created by chance, spontaneous generation, or by the Divine, was left alone to develop according to the laws of evolution. Du Nouy only adds that if natural evolution should take a wrong turn, the Divine would interfere to set it again toward the final goal. Thus it might be well to state briefly the popular theory of evolution.

The first organic form of life was considered to be a speck of sea slime which by adaption or invention developed the power of motion. In many generations it added a great series of adaptations or inventions—muscles, bones, blood, warm blood, legs, backbone, organs, etc., and finally a reasoning brain.<sup>1</sup>

One eminent evolutionist in an address gave a rather cynically humorous survey of this theory. He said: "We must be content

<sup>1</sup> Summarized from an article "Man, an Invention," by Profs. E. E. Free, and Wm. K. Gregory, Curator of Comparative Anatomy, American Museum of Natural History.

with the general assurance that the original man, the ancestor of the human race, was what in modern language might be loosely described as a microscopic dab of mud. . . . Although to the eye of fact our ancestor was still scarcely . . . distinguishable from the slime in which he continued to reside, he had made a great stride up the ladder of evolution. He had mastered the secret of assimilation and growth . . . in other words, our ancestor digested and assimilated food; and, at that stage, man could do no more. Stones have not learned to do it yet. . . . As he attracted attractive particles to his inside, so was he drawn in the direction where attractive particles were thickest. Thus early was developed that faculty of mankind during social entertainments to cluster round the bars and supper tables. O, Man was getting on.”<sup>2</sup>

The theory teaches that one form arose from another, and there were many branches. Thus we have a chain of species and genera—the invertebrates, the vertebrates, the mammals, and man. Thus life gradually evolved by its own efforts from matter to living, sentient being. Through myriads of years, the forms of life varied and became more complex—more specialized. Acquired characteristics were transmitted by heredity so that the offspring was better prepared than the parent forms to cope with its environment. By heredity and mutation many variations arose. Environment, changing by unpredictable and disordered forces of nature, destroyed some forms, and others, more haply equipped by blind chance to face the rigors of these changes, prospered and became abundant. Thus a great number of varieties arose, until finally, by a species of invention, we have all the kingdoms of nature, and all species and genera in existence, except man.

Then, since all things tended upward in quality from some unknown law of chance directly contrary to the laws of thermodynamics (the leveling off of effort and energy instead of progression),<sup>3</sup> the higher forms of ape produced an intermediate between ape and

<sup>2</sup> From *Man of the Past*, by E. Kay Robinson, N. Y. U.

<sup>3</sup> In a brilliant article “Life, Thermodynamics, and Cybernetics” in “*American Scientist*,” Oct. 1949, L. Brillouin shows many limitations of the 2nd law. He points out in part: “There are many strange features in the behavior of living organisms, as compared with dead structures. . . . The fact that evolution has been progressing from the simplest to the most complex structures is very difficult to understand, and appears almost as a contradiction to the law of degradation represented by the second principle. . . . It is hard to reconcile these two opposite directions of evolution” (page 564).

man over the period of thousands or millions of years. These apemen lived in great numbers, transmitting even higher qualities. Each variation led to special mating, which tended to accentuate their acquired characteristics. As his brain power developed, man finally emerged from the jungle, a thinking, rational being, able to talk, plan, fashion tools, and to imagine and create beauty. But implanted deeply in his nature was the savagery of his origin. He lived with a lust to kill, lust and desire in place of love, and the selfish lust for possessing all things for himself alone.

This simple outline is generally accepted. Similar simplifications have been made and used by such men as H. G. Wells in his *Outline of History*, and by Van Loon in the *Story of Mankind*.

The evolutionists continue, saying that conscience arose from the realization of the advantages of group life, each protecting the welfare of the others. The dawning brain power saw that man was stronger if aided by others, than by standing alone. Thus from pure, selfish reasoning a truce was established. When it was clear that this worked, it became the law that could not be broken. Thus man is thought to have progressed through the interaction of two specific forces, friendship within the group, and common enmity toward outside groups.<sup>4</sup>

Friends who had died appeared to early man as living in his dreams. This is meant to be the origin of belief in a future life. Accepting this, it was natural to assume a ruler of men there, like the father or chief here. Thus arose the idea of God. From this gradual development, mental and physical, the ape man passed. In his place we have the man of today. According to these teachings, man has risen to the height of civilization, battling constantly against his brutish desires, and bearing indelibly stamped upon his character the attributes of the beast, his origin. Such is the theory of man's ascent from protoplasm, through all the forms of evolution, to the crowning form of life today—reasoning, wonderfully civilized, man.

#### DIFFICULTIES IN EVOLUTION THEORY

There are many objections to this theory—many raised by the evolutionists themselves. One valid objection is that it mistakes theory for fact. So one says to the objections that man rose from the ape form: "In any case we have to try to square our views with the facts, not the facts with our views, and while one of the facts is

<sup>4</sup> *A New Theory of Human Evolution*, by Sir Arthur Keith.

that man stands unique and apart, the other is that man is a scion of a progressive simian stock.”<sup>5</sup> This last is an assumption, not a fact. So also is the conclusion concerning the early ancestor of the carnivores and primates, assumed to be the insectivores. Thus he said: “There is no doubt that the insectivores were very plastic and progressive mammals.”<sup>6</sup>

Another objection arises from the summary rejection of the Biblical story of the creation. Evolutionists seem to assume that there can be only a literal interpretation of the Word, and that if its validity can be challenged, we must give up the idea of a creation of separate species. So, because certain animals are found only in Australia, they argue that this precludes the possibility that all living men and animals descended from those who were in the ark when it landed on mount Ararat after the universal flood. By thus proving that Australian animals were not descended from those supposed to have escaped the flood, they are satisfied that they have disproved the Biblical doctrine of the separate creation of species.

They also deride any possibility of a continuing or progressive creation to suit the testimony of geology that higher forms appeared in successive stages. They seem to consider it imperative if we are to believe the Bible at all, that we accept only one creative act in a period of seven days, and that then creation be left to itself. They seem to insist that those who hold to religion and a Creator must also hold to the illogical creation by fiat, out of nothing. These arguments cannot destroy religion, although they have turned many of their own devotees into agnostics and atheists.<sup>7</sup> One scientist points out that for many years evolution was considered taboo as opposed to religious principles. He says that the result is the younger generation is apt to give up religion, for, he says, they are fascinated by the demonstrated truths of evolution, and have abandoned religion. He advocated the acceptance of evolution by religion to save the situation. He says that this scientific data will arouse a feeling of awe and wonder that can have only one result—the building of a new and greater faith in *life*. And he calls it “as sound a basis for faith as was ever submitted to man.”<sup>8</sup>

<sup>5</sup> J. Arthur Thomson in *Outline of Science*, page 163.

<sup>6</sup> *Ibid*, page 165.

<sup>7</sup> NEW PHILOSOPHY, 1946, page 347.

<sup>8</sup> John Sparks in *The Introduction to the Histomap of Evolution*.

Evolutionists themselves have pointed out that there are many weak points in the chain of evolution, one being the fact that there are missing links all along its length. How one class arose from another is not demonstrated by any intermediate forms. How the vertebrates could have originated from the non-vertebrates is not known. So how birds arose from dinosaurs, or the placental mammals from the marsupials, or the carnivora and insectivora from some common, generalized ancestors.<sup>9</sup> Many evolutionists believe that it is impossible for life to spring from a single source.<sup>10</sup> Thomson writes: "Another preliminary note is unfortunately necessary, that it is quite illegitimate to infer from our dubiety in regard to the factors of evolution any hesitation as to the fact. Our frankness in admitting difficulties and relative ignorance in regard to the variations and selections that led from certain dinosaurs to birds cannot be used by any fair-minded inquirer as an argument against the idea of evolution." And then he adds the naïve remark: "For how else could bird have arisen."<sup>11</sup>

The biggest difficulty in holding to this theory is the absence of missing links between ape and man. Many liberties have been taken by the scientists to demonstrate missing links, but in vain. Professor Osborne, in the *Hall of Man*, tries to show the genealogy of man through the apes, with the trinal ape-man—pithicanthropus erectus—as the missing link. But he later renounces this.<sup>12</sup> One authority states: "Not one connecting link has been found between man's hypothetical ancestral forms and man. The whole hypothetical pedigree of man is not supported by a single fossil genus or a single fossil species."<sup>13</sup> Neanderthal man, considered for a time a missing link, is now thought to be within the limits of variation of *Homo Sapiens*. It is considered by some specialists to be a degeneration from a higher form. Even Sir Arthur Keith says: "We are compelled to admit that men of modern type have been in existence long before the Neanderthal type."<sup>14</sup> Thus modern man is considered to be as ancient a form as any yet discovered. Speak-

<sup>9</sup> James McReady Price in *The Phantom of Organic Evolution*, p. 206—quoting Prof. Fleming in "Origin of Mankind."

<sup>10</sup> L. R. Wheeler in "Survival, Biological or Human."

<sup>11</sup> J. Arthur Thomson, in *Outline of Science*, page 368.

<sup>12</sup> Osborne, *Men of the Old Stone Age*, page 79.

<sup>13</sup> Eric Wasmann, in *Modern Biology and the Theory of Evolution*, page 463.

<sup>14</sup> Sir Arthur Keith: *A New Theory of Human Evolution*.

ing against the ape ancestry theory, one man points out that the ancestry of our present mammals is discovered in the fossils of the Tertiary period, but man appears suddenly in the Quaternary period. "There is no record of any ancestor of man in the Tertiary period. The very first evidence of man's existence . . . proves that he made his first appearance at once, as a complete man."<sup>15</sup> Another says: "Paleontology tells us nothing on the subject—it knows no ancestors of man."<sup>16</sup>

Professor Osborne admitted the lack of data to uphold the theory of evolution. He said at the end of a long address: "We can talk about Neanderthal man, Cro-Magnon man, and all the other primitive types, but we have nothing that is of any real value to us in upholding our contention of evolution. . . . I suppose I am leaving myself open to a frontal attack by the forces opposed to the doctrine of evolution, but I am not interested in that, my belief in evolution is unshaken."<sup>17</sup>

Dr. Scott, also disclaiming evolution, said: "The Darwinian period is past; all again is in the melting pot." Yet he added: "Evolution remains, there is no alternative, and the evidence of paleontology is unshaken." It is no wonder that one writer says: "The more one studies paleontology, the more certain one becomes that evolution is based on faith alone."<sup>17a</sup>

We can be grateful for the studies and facts that have been discovered by the evolutionists, and we can understand why the theory arose. It was from the efforts to discover universal law and order—to fight against ignorance and blind fundamentalism. But the theory failed. The evolutionists hit out at each other. The facts which they have waited to discover for more than a hundred years have failed to materialize, or have only led to further renunciation by leading scientists. Evolution fails to provide missing or intermediate links between species. It fails to show cause for the rise of life, and the dominating factor for change in Nature herself. It now has discovered that Modern man—Homo Sapiens—is as ancient as any discoverable form, and other ancient remnants of man

<sup>15</sup> Prof. Branco in an Address to the Fifth International Congress of Zoologists.

<sup>16</sup> See note 13.

<sup>17</sup> Address "Recent Discoveries concerning the Ancestry of Man," reported in the *Phila. Inquirer*, Feb. 22, 1928.

<sup>17a</sup> Prof. L. T. Moore, University of Cincinnati, "The Dogma of Evolution."

are within the variation limits of *Homo Sapiens*.<sup>18</sup> It denies God the Creator. It denies the rule of Providence to maintain the creation. It identifies life with matter. It derives the complex from the simple. It denies modern understanding of nature's law, by rising above the source, and it mistakes effects for causes, such as the Recapitulation Theory. The motto "Ontogeny recapitulates Philogeny" expresses an appearance, but does not establish a cause.<sup>19</sup>

These reasons, and many others brought forward by the evolutionists themselves, lead to the inescapable conclusion that the theory of materialistic evolution falls by its own weight. The only reason that it has not been completely discarded is that men are at a loss to give anything to replace it.

Any answers the New Church gives must meet the reasons for the acceptance of that theory—systematic development according to law and order—as well as the objection to unreasoning, dogmatic, literalistic theology. Common sense should demonstrate at least part of the answer. There must be a beginning which we define as God, and His nature may be known in the creation, by perception, by analogies, and study. But principally men can know this by means of the ultimate written Revelation, which teaches His presence and the manner of His presence, in the creation. After the teaching is seen, it can be confirmed by the eye of reason.

Materialistic reasoners challenge this concept by attacking the idea that there is a God—the source. They say that man cannot conceive of a Being without beginning. But it is less reasonable to assume that nature always was, and there was no beginning, and no source. Nature is, and according to scientific measurements, entropy is a characteristic of matter—therefore, since it is approaching complete equilibrium, it must have had a beginning. A clock cannot run down without being wound in the first place. If the universe is continually running down, it had to have a beginning when it was completely charged with energy. If it is not running down, there must be a continual source of energy, above nature. Basically, the problem of the existence of God is much simpler than that. Materialists think from self, their power of understanding is their criterion—they are ego-centric, yet it is obvious that they are not the center of creation. A wise man realizes

<sup>18</sup> Rupert Stanley, in *Anthropology and the Fall*, pages 10 and 11, and footnotes.

<sup>19</sup> See George de Charms, *Growth of the Mind*, pages 90-92.

that he is part of a great whole. He strives not to limit his conceptions by what he would like to believe. He can see that things are, without being able to see clearly how they can be. So from Revelation or science he can see that there must be creation. Revelation so declares. Or, if he accepts the theory of science that the universe is a deteriorating thing, it involves a beginning when its forces were stored up. That beginning we define as God. Whatever the name we use—chance, nature, or God—its qualities can be known from the law and order in the created natural world.

### SOME NEW CHURCH PRINCIPLES

The Writings of the New Church provide an abundance of material from which to find an answer to the problems of the development of organic forms of life. They clearly present the leading spiritual principles that will guide future research, and they can give us a basic understanding of the mode of creation.<sup>20</sup> And it should be pointed out that the way of order is to see effects from spiritual principles or causes. This leads to wisdom in the disposition and arrangement of facts. To try to arrange the external facts and deduce causes and principles from them, we are told, is against order, and leads to confirmation of falsities and lusts (*C.L.* n. 408). Nine spiritual principles seem to have direct application.

1st: There is a Divine Being, who is Love Itself, Wisdom Itself,

<sup>20</sup> New Church theories may vary widely, but all will recognize that causes arise in the spiritual world, and are ultimated in the world of nature that the Divine purpose of an angelic heaven from mankind might be realized. Dr. E. E. Iungerich gave a timely warning to New Church Scholars in an article in the *Journal of Education*, April 1915. After pointing out that the scholars and scientists of the world have built up something of an imaginary heaven in their theories, in which facts and theories and false principles are sadly mixed together, he says that we must work in this field from the light of illustration from the new Revelation, and the enlightened principles of Swedenborg's philosophy. Speaking of the falsities in worldly science, he adds: "It is only slowly that we can drive these enemies out of the land. If we drove them all out at once, then the wild beast of our . . . incompetency would overwhelm these uses. So we must tolerate for a space their . . . physical theory of attraction within inert matter, their medical therapies . . . their theory of evolution, and many others. But while developing in our workshop adequate systems to supplant them, we must both guard against accepting any of them in toto as well as guard against denying there may be some involved truth which has been perverted. . . . We need . . . to exercise a wise patience" (page 159).

and Life Itself. All creation is from Him. He is the source of all life and power. He is Order, and His Order is impressed on nature. Thus, the world of nature, obedient to His Law and Order is mechanistic in its modes, but is operated by the Divine Power.

2nd: Life is non-creatable. It must constantly inflow from its source, i.e. from God (*W.* 4). This is confirmed by a modern scientific observer, who wrote: "Life is transcendent to inert matter; it cannot come from it as life; life is itself a principle different from matter." <sup>21</sup>

3rd: The Lord created the universe for no other purpose than for the existence of mankind, that from mankind there might be an angelic heaven (*W.* 167-172, *P.* 332, *A.* 6697, *Cannons* on God 7).

4th: Creation was effected by means of two suns and two worlds—the spiritual, with its plane of causes, and the natural, and its plane of effect (*W.* 163). The natural world provides the natural substances upon which the spiritual forces act (*T.* 76, *W.* 165). It can be seen that unless there were the dead world of matter, and the living influx from the world of cause, there could be no freedom, and thus no possibility of a heaven. We must be able to ascribe our origin to dead nature, as do the evolutionists, or to God, as do the religionists, to have mental freedom of choice; otherwise, we would be mere automatons, without the ability to choose and reason.

5th: All things were created for use and in the image of use, and the sum of all uses is that man may be prepared for heaven. Therefore, inasmuch as in man is the end and purpose of creation, all things have reference to that purpose. Therefore, all things strive for the image of man (*W.* 61, 65; *A.* 6697; *W.* 319).

6th: Creation was not a completed thing once done to be left to itself, but creation is continual. Sustentation and preservation are continual creation by the Lord (*A.* 4322, 10076).

7th: Creation proceeds from first to lasts, and thence to intermediates (*E.* 1209, *H.* 9); and the influx of life, order, and use, is according to reception (*A.* 4198, 3646, 2888).

8th: The world was not created out of nothing by Divine Fiat, but by ordered means, from Himself (*D.L.W.* 282, 283).

9th: All things were created into a form of use (*W.* 65, 66; *W.* 327) and they remain in it, not changing to other forms (*D.P.* 55).

<sup>21</sup> L. Cuénot, quoted in *L'Origine des Etres Vivants*, by Professeur Louis Vialleton à la Faculté de Medecine de Montpellier. See also E. Schrodinger, *What is Life*.

THE CREATION OF ORGANIC FORMS<sup>22</sup>

These are the leading principles, and in general, this is how they apply. The Lord, the First Cause, used one law and order which is universal in the creation, true in things greatest and least. According to that law, from the Divine Will, or from Firsts, He proceeded to create the ultimate matter of earth by means of the atmospheres. Then in ultimates, the work of formation began. This principle is universal. It applies to the creation of the universe and to the formation of the least thing by man. Whatever we create is first present in our minds as an end or purpose. In this living image, the whole effect exists. We visualize in the mind, then there is an influx from the soul or will into the body, inspiring it to procure the materials to fashion our plan. Only then can it exist. The will takes hold of the materials and fashions the realization of its purpose. Thus the soul proceeds from firsts (in the mind) to lasts (getting the materials) and in lasts, it commences the work of formation.

So in the creation of the universe. God first created atmospheres, the medium through which forces might operate. By them, inert and dead matter was last created as the materia for all created forms. Only after this dead matter, such as the entire mineral kingdom, existed, could organic vessels, receptive of life be created. The Lord acted upon this basic matter through the atmospheres, to convey His Life to creation. Bishop de Charms describes the Divine action as the hammer of creation hitting the anvil of ultimate matter to forge living forms. Bishop Acton calls the atmospheres the "fingers of God," shaping His organic creation.<sup>23</sup> He points out that the air, with its moisture, water, heat and cold, acted upon ultimate matters to produce the primitive protoplasm—the simplest compounded substance capable of being animated by God. This is the mother substance to be impregnated that primitive forms of life might be created. Matter cannot give life to matter. Its use is to furnish the clothing for life. But the impregnation must be effected by the Divine Life proceeding through the atmospheres. This life force through the atmospheres must be clothed with substances from the earth, that by means of that clothing, it

<sup>22</sup> These teachings may be seen in a more extended form in the article "The Origin of Man," A. Acton, *NEW PHILOSOPHY*, 1921, page 65, from which much of this material was drawn.

<sup>23</sup> *Ibid*, page 94.

might act upon the matters of the earth. This is the Use of the spheres, which all created things emanate.<sup>24</sup>

It takes the finest essences of matter to form a receptacle or seed of life, to impregnate the protoplasmic substance. For matter is not altogether passive and dead. It has the conatus or endeavor impressed upon it to clothe forms or uses. There is a constant emanation of spheres or radiations from all ultimate matter—from water and all the elements of the mineral kingdom. These emanations are used to form seeds and produce life in the vegetable kingdom, and they cause germination and growth in vegetable seeds (*W.* 172).

The spheres given off by matter are the finer materia that may be used by the active atmospheres. By them, they clothe themselves, and form the primitive seed. These seeds are implanted in the primitive ovarian substances, formed from the salt, oil, and water of the earth. The formation of this protoplasmic substance has been observed in the laboratory by the effect of radium emanations upon a sterilized, oily substance. This same principle applies to every stage in the ascent of the creation. New matters have this innate tendency to clothe uses, and new organic forms give off spheres also that can serve for the formation of seed of still higher forms of life. The soil, or humus, supporting the higher forms of vegetable life, is produced only from the remains of organic life. The bodies of all forms of organic life, enrich the existing material, to make it possible to clothe still higher forms of use. And there is a gradation of spiritual forces of life, as modified by the atmospheres. Life from the Lord, flowing through and tempered by one atmosphere, acting upon the spheres of the mineral kingdom, will produce the lower forms of life in the vegetable kingdom; flowing through a higher atmosphere to vessels prepared by the vegetable kingdom, it will produce the seed of the animal kingdom; flowing through the highest atmosphere, it will produce the soul of man.

Thus, creation ascends, step by step, in one continuous order, and according to one law—from the lowest forms of life, to the highest. At each step, the lower exists for service to the higher. That one

<sup>24</sup> Swedenborg speaks of the effects of these spheres in the little work "New Ways of Discovering Mines." Dr. Tafel, reviewing it, said: "The principle that the author . . . sets forth . . . is that from every metal there proceeds a sphere which . . . penetrates the whole . . . stratum of earth around it, and determines the nature of the vegetation. . . ."

law is true in every stage of creation, in its ascent from lasts, or ultimates, to firsts, from matter to the kingdom of heavenly souls. Every new creation is but a step in the ascending series; and every preceding form lays down its life, as it were, for the higher forms to follow. Thus, in series after series, the forms of the vegetable kingdom, and the forms of the animal kingdom, come into existence (*W.* 171).

This can be illustrated today by the science of ecology, demonstrated on every sea and lake shore. Sea, air, and rock, and their interaction, cause the development of sand. The emanations from the mineral substances in the water are increased tremendously, as the rock displays its many facets in the sand. The coarse sword-grasses are nurtured by these spheres; their death adds new organic substance to the sand, making a richer soil and higher spheres, which will support shrubs. These, in their turn, enrich the soil so that this topsoil supports the soft wood trees; by their death and decomposition the enriched soil nourishes the hard-woods, and finally, fruit trees. In every case, the animals that feed upon these vegetable forms are associated in their proper environment. They also contribute their substances at death to build the more complex spheres, which form the ultimate basis for the reception of life and uses of a higher degree. This law of creation is what gave rise to the appearances of one form evolving from another, in a steady series. There was continuity and plan from the simple to the most complex, for each strove to put on the human form of the Creator, according to its degree and capability (*W.* 61).

This briefly summarizes a New Church theory of the creation of organic life. It accounts for the facts of evolution. It operates according to universal law and order. It produces higher forms, step by step, not by organic procreation from a lower form, but by the use of the spheres and enriched materia to produce the higher forms. All are dominated by the human form, for that is the Divine End or Purpose to which all things look, and for which they strive. And we must remember that the First Cause, the Lord God Himself, created the ultimate world for a purpose, and the image of that purpose is in all things of His creation, and finds fulfilment in man—the last and crowning work of nature—the beginning work, or seed of the angelic heaven.