

A SOURCE ANALYSIS
OF
EMANUEL SWEDENBORG'S
PHILOSOPHICAL AND THEOLOGICAL IDEAS

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INTRODUCTION

The pre-theological and theological works of Emanuel Swedenborg have been artificially divided by an abyss of revelation. Because of the obvious abrupt change in both the style and content of the books published after his spiritual crisis of 1744-45, it is easy to presume that the two collections are virtually unrelated. In a stark transition from the rigorous analytical method of his scientific works, we find in Swedenborg's theological Writings a philosophical and exegetical style, dependent no longer on the reproducible data of the scientific method, but on spiritual *experience*, with the authority of divine revelation alone.

The nature of this transition is problematic for those students of Swedenborg's scientific works who also appreciate his theological Writings for the revelation they claim to be. What, for example, are we to do with certain revealed doctrines basic to the theological works, when they may also be found essentially complete in works clearly philosophical, and therefore not "inspired?" How are we to interpret a statement in *The True Christian Religion* referring the reader to cosmological principles which have been explained "in what has been set forth in *my works* [OPERIBUS MEIS] respecting creation?"¹ Does this

¹This statement, found in TCR n. 33, apparently refers specifically to Swedenborg's *Principia*, and not his "works" in general. Alfred Acton II examines this problem in *What were They Fighting About?: A Revue of the Argument over the Nature of Spiritual Creation, The New Philosophy*, Vol XCVIII, Nos. 1 & 2, January-June, 1995, p. 43.

statement endow the *Principia* with the authority of the Writings?

The trouble is that there are several ideas basic to Swedenborg's theology which appear in the scientific works as well, and his apparent use of certain of his scientific principles in theological constructions cannot be ignored. There is also the question of which principles, if any, might Swedenborg have gleaned from other philosophers, eventually to find their way into his theology.

This paper will address these problems, by examining Swedenborg's scientific works in an analytic way. The method will identify specific elements of these works which 1) may have been derived from other philosophers, and which persist in the theological works, 2) were apparently derived from Swedenborg's original thinking and also persisting in the theological works, and 3) are doctrines appearing *de novo* in the theological works, which clarify or even supersede elements of the scientific works.

What emerges from this analytical treatment of the scientific works are identifiable lines of thought - a conceptual tree of sorts - converging but still incomplete at the time of Swedenborg's call, but perfected thereafter by the addition of certain critical and unifying truths.

To begin this process, Swedenborg's major works in the natural sciences have been selected for analysis, presented chronologically here, with a little commentary to put them into the perspective of this study.

Swedenborg's Major Scientific Works

1719 *On Tremulation*

A tentative work dealing with human anatomy and physiology, but also speculating on the role of certain anatomical structures in the transfer of information within the body. The idea of a harmony of sympathetic vibrations between anatomical components is introduced. After this very promising beginning, Swedenborg apparently abandoned this line of investigation for the pursuit of philosophical topics focusing on cosmology.

1721 *Principles of Chemistry*

A treatment of the geometrical internal arrangement of various substances, the enduring concept in this book defines matter as serial aggregations of components differing in complexity of arrangement, but not substance. A theory of creation emerges from this series, originating from a single, mathematical point.

1729 *Lesser Principia*

A short work improving on the concept of the mathematical point said to be the simplest of matter in the *Chemistry*. Matter must begin with a binary of two simples, fluent and quiescent, reciprocally associated.

1734 *Principia*

A major work attempting to explain creation (as in the *Chemistry*) by a series of compounding aggregates of matter derived from active and passive primary particles.

Essential to extended matter is motion, provided by a *conatus* from the Infinite. Creation proceeds by a series of compounded *finites* in increasing degrees of complexity, each successive level containing the one before.

1734 *The Infinite and the Final Cause of Creation/Intercourse Between the Soul and the Body*

This philosophical/scientific work represents a turning point in Swedenborg's scholarly life, as it is here that he shifts his attention away from cosmology and physics, and begins in earnest his search for the soul. His concept of a structural and functional *contiguum* emerges in this book, as the pathway from the natural to the spiritual. Realizing the need for more anatomical expertise, he embarks on extensive self-study and finally formal studies in Paris, 1736-38, in the School of Chirurgery and Dissection.

1740 *Economy of the Animal Kingdom*

A major work on human anatomy in four parts. The soul is at first identified in association with the three bloods. Following this is an expanded model of the dynamic *contiguum* of adjacent membranous and fibrous parts serving the body at all levels. A large section on the cerebrum was written and never published, as Swedenborg abandoned this work as too "hasty" in its approach.

1744 *The Animal Kingdom*

A major series of works of the same nature as *Economy*, but from the perspective of the soul itself. Its goals were

to define a "rational psychology," or the working of the mind, and to gain knowledge of the soul, "the crown of my studies." From this approach, Swedenborg hoped to identify the seat of the soul in the body. Leaning toward the brain as the site of this nexus, the series nonetheless ends in an unfinished state, a reflection of the author's failure to define the nexus in anatomical terms. Major contributions of the series (also including *The Fibre*, *The Five Senses*, *Generation*, and *Rational Psychology*) are the further development of the *contiguum* concept, relation by degrees, and the absolute necessity for a doctrine of correspondences (briefly described, but never really defined). This unfinished study was terminated by Swedenborg's spiritual crisis, from which followed his theological period.

Young Swedenborg

Young Swedenborg was a voracious student of philosophy and science. He travelled widely, visiting the scholars and libraries of Europe, leaving voluminous notes in his wake.² From these notes we have a good idea of his interests, and although these were predictably broad, it is possible to identify some primary sources for his philosophical ideas. Some of these ideas he later discarded, and some he modified, but some of these

²Of these notes, the most widely known are those edited and collected by Alfred Acton in 1931, in *A Philosopher's Notebook*. Organized by topics, it is a chronicle of Swedenborg's interests as a young scientist comparing notes with the best minds of history.

principles he embraced to the end of his life.

Contributions From Other Philosophers

Three principle philosophers from whom Swedenborg seems to have drawn heavily are Descartes, Liebnitz, and Wolff³. Appearing frequently in his *Notebook* and elsewhere, it is possible to draw some conclusions as to which of their ideas were incorporated into Swedenborg's thinking. Some of these ideas can be followed into his theological writings as well. Although this analysis is tentative, a discussion of these ideas is useful to demonstrate an important contribution to the tradition which produced the theological Writings.

René Descartes

Of all the philosophers, Swedenborg seems to have drawn most heavily from Descartes. Predictably influenced by the philosophy which had enjoyed such success in Swedish intellectual circles, and just ahead of the overriding influence of Newton's physics, Swedenborg began his scientific career with the Cartesian certitude of contiguity, pure and total motion, and an identifiable nexus of soul and body. Three Cartesian ideas of particular importance to Swedenborg's philosophical system were 1) the universe is not a void, punctuated by occasional dense bodies such as suns and planets, but is in fact a series of contiguous bodies of differing motion, 2) all things are

³For a substantial discussion of the possible contributions of the German philosophers to Swedenborg's development, see Nimitz, Kurt P., *The German Philosophers Leibnitz and Wolff In Swedenborg's Development, The New Philosophy*, Vol. XCVII, July-December, 1994, p. 411.

mechanical in nature, and 3) the soul is joined in some real way to the (mechanical) body, and leaves it at death.⁴ These ideas are basic to many of Swedenborg's cosmological statements, and to his idea of the interaction of the soul and body as well. His reliance on these great concepts never falters.

Gottfried Wilhelm von Leibnitz

From Leibnitz Swedenborg gained valuable insight into the nature of matter, a concept of mind, and the idea of action at a distance by means of harmony between interacting components.⁵ Leibnitz postulated an "alphabet" of human thought (a *universal mathesis*) which could explain complex phenomena by means of simpler ones or even symbols of these. This problem was to drive Swedenborg to develop some practical language of such analogy, and as we shall see, its solution was to elude him to the bitter scientific end, finding expression only in a theological concept of *correspondence*. Improving on Descartes' notion of mind/body nexus, Leibnitz places the human mind in an imperishable "kernel" of the body which survives death, an idea to surface much later, greatly modified, in Swedenborg's *limbus*, the envelope or containant of the human soul. Further ideas of great importance to Swedenborg were that matter is composed of elemental units called *monads*, interactive by *preëstablished harmony*, and that the body and the soul interact by means of this same principle.

⁴Edwards, P., Ed., *Encyclopedia of Philosophy*, Vol. 2., Macmillan Co., New York, 1967, pp.344-354.

⁵ibid.,, Vol. 4, pp. 422-433.

Perfecting this hypothetical interactive mode by his later description of *coëstablished harmony*, Swedenborg nonetheless owed much to Leibnitz for the rudiments of this idea. Of equal importance is Leibnitz' restatement of the ancient notion of concurrent active and passive forces associated with his monads, a model persisting in Swedenborg's *first finite* of the creational series, in the *Principia*.

Christian Wolff

Perhaps selecting less from Wolff than from Descartes or Leibnitz, Swedenborg nonetheless appreciated Wolff's clear explication of the ideas of other philosophers, and he was particularly attracted to his explanation of extended matter and non-extended substance, an arrangement allowing a clear separation of the natural and the spiritual worlds. Although Wolff described a rather mechanistic model for the human body, Swedenborg was attracted to his explanation that this body could work toward the final cause of God, and could thus be both efficient and final cause.⁶

Although one might argue for other foundational ideas appearing throughout both Swedenborg's scientific and theological works which might be included here as having been derived from other philosophical sources, those selected for this discussion are clearly major concepts, presenting little difficulty in identification or interpretation as they appear in his subsequent works. From this collection of philosophical foundations we

⁶ibid., Vol. 8, pp. 340-343.

shall proceed to a discussion of other, different ideas found in Swedenborg's philosophical and scientific works which, as above, persist in his theological writings as well. The difference is that these ideas seem to be original with Swedenborg, derived from the evaluation of the former by *analysis*, or the scientific method for finding truth from experience alone.⁷ Swedenborg believed himself to be "the first who has taken this course professedly" (*Animal Kingdom* n. 15).

Swedenborg The Scientist

The Nature of Matter

The first, and perhaps most basic of foundational ideas in Swedenborg's scientific works is his own definition of the smallest component of extended matter, that particle giving rise to all other matter in a series of combinations. This was the philosophical *ens primum*, developed by Swedenborg over time into a model satisfactory to the requirements of his cosmology. Appearing first in the *Chemistry* as a dimensionless mathematical point (differing little from the standard Euclidean paradigm), matter was built up from this entity in motion, in a series of "crustals," which compounded into particles of greater and greater complexity. Each crustal is contained in the crustal subsequent to it in the series, providing a functional continuity

⁷Swedenborg was intent on ascending to the anatomical domain of the soul by scientific reasoning based entirely on experience, but by means of "new ways," which make this possible. His discussion of this process, called *analysis*, may be found in the Prologue to *Animal Kingdom*. These "new ways" unfold as novel philosophical doctrines, some of which mature to become important theological elements.

to matter in all forms.

Finding that a purely mathematical point would not serve to produce matter with both active and passive attributes, Swedenborg, in the *Lesser Principia*, revised this *simple* into an entity of two modes, *fluent* and *quiescent*, which combine to become matter. This first *bullular particle* has a surface of quiescent points, an active interior of fluent points, and a fluent sphere outside its surface. It is not difficult to see the rudiments of modern atomic theory in this energetic, bipolar representation of the bullular particle.

Building on this improved model of matter, the *first natural point* emerges in the *Principia* as the particle resulting from motion imparted to a dimensionless simple by the will of the Creator. This is the entity which bridges the Infinite and the finite, its internal motion a perfectly circular mode, as yet dimensionless, awaiting the addition of linear motion to become extended. Within this particle is contained all active and passive principles - all of matter in potential.

By means of the *conatus* to motion internal to this first natural point the first extended particle is produced - one of dimension because it moves, not only internally, but now in a line through space as well. Defining one dimension, and thereby part of space, and by combination of its internal and external motions, the figure this *first finite* describes in space is a spiral, reciprocating from center to circumference and back.

Aggregates of connected first finites produce a passive

entity, capable of receiving motion. This, the *second finite*, is produced from the combination of firsts, by contiguity. If, however, a first finite is independent of this contiguity, it becomes an *active of the first finite*, a particle of matter with inherent motion, and a functional reciprocal to its passive counterpart. It is the combination of these two - the passive second finite and the active of the first finite which finally produces the first element, or *elementary particle*. This particle is truly matter, from which, through a series of combinations, all things of the universe are derived. It is a reciprocal association of active and passive, just as in the *Chemistry*, but developed to near perfection⁸. We will find this binary element again, in the theological Writings, manifested as the *Conjugal Principle*, the presence of the Divine marriage of Love and Wisdom - the Creator Himself - in all things of heaven and earth (AC 718, DLW 14, 34, 36, 46).

The Contiguum

The next great concept to be examined in this study is that of the connected nature of all things in series, already implied in the creational sequence of the *Principia* as fundamental to the nature of matter itself. An idea appearing in the earliest scientific works, we find it first in *Tremulation* (1720), in a

⁸Swedenborg's detailed description of the simple and its progression to the elementary particle is presented in the *Principia*, chapters I-VI. Subsequent chapters in Part I deal with combinations of these elements in a series of finites in a creational sequence leading to the formation of the solar system and earth.

discussion of the connection and harmony between all parts of the human body by means of the small nerves (called *fibers* by Swedenborg). A stimulus to any single part, we are told, is essentially a stimulus to all parts as well, by means of a contiguous system of membranes, from the dura mater to the fine membranes investing the smallest parts.

Next, we find a restatement of this principle in the *Principia*, offered as an example in a discussion of connectedness prescient of the doctrine of Degrees:

We see then that there is a contiguity in all things, and that nature produces them by means of connection, extending from one end to the other, both of substances and causes... The case is the same in animals; parts cover over parts, and grow by contiguity. Both the nervous and membranous system is coherent and contiguous. There is not part in the whole animal to which fibers, muscles, veins, and arteries do not extend; no fiber, which is not derived and ramified by some larger nerve; no nerve, which does not proceed from the medulla spinalis or oblongata and its teguments; and no vein, but what originates from that great one which flows immediately from the heart. The medulla and its teguments, with which the nerves are connected, are in contiguity with the membranes of the whole brain; its grosser coats are contiguous to its more subtle ones; the dura mater to the pia mater; the pia mater to the more subtle parts; and thus the contiguity is continued till it arrives at those simple active substances, from which all motions or affections can afterwards reflect and expand themselves to the most principles of all. Hence it is manifest that there is a continual connection of the whole body with its minutest parts.⁹

Nowhere, including his massive anatomical works to come, does Swedenborg describe continuity more completely and elegantly than in this statement. This quotation demonstrates a mature concept

⁹Swedenborg, Emanuel, *The Principia*, Walton and Mitchell, London, 1848, Reprinted by the Swedenborg Scientific Association, 1976, Vol. I, pp. 21-22.

of functional integration in the human body, in place by 1734.

In *The Mechanism of the Operation of the Soul and Body* (also of 1734), Swedenborg enlarges the concept of the functional nature of this anatomical continuity, naming it in this book the *contiguum*, and explaining its importance in both physical and spiritual terms. "With the microscope," he says, "we observe in the lesser the causes which produce motion and extension in the larger."¹⁰ All connection supposes contiguity, and the contiguum is the whole system of contiguous membranes and fibers, from grosser to finer, from essentially the whole body to a level far below the level the microscope allows. At this finest level is the nexus of soul and body.

The contiguum next appears in *The Fiber*, of the *Economy of the Animal Kingdom* series, in a discussion of the tunics of nerves and fibers, in which a contiguum of nerves, from the brain to the finest peripheral branches, along with their tunics in the whole body, is described. In another context, the pia and arachnoid coats of the brain are identified as universal membranes of the encephalon, communicating with the contiguum of nerves and fibers.

Swedenborg's most rigorous description of the contiguum appears in the *Animal Kingdom*, where, in the chapter entitled The Peritoneum (Vol. I, Ch XVI, nn. 318, 19, 20), he gives us an exacting description of the three-dimensional membranous lattice

¹⁰Swedenborg, Emanuel, *The Infinite and the Final Cause of Creation, also the Mechanism of the Operation of the Soul and Body*, Swedenborg Society, London, 1965, p. 27.

spanning levels of complexity from grossest to finest parts. This description does not end with anatomical relationships, but for the first time includes a consideration of the functional nature of the system. Here we find a statement of the role of these membranes in "communication, powers, and actions;" a purpose for this anatomical arrangement beyond that of mechanical support alone.

In the posthumous *Rational Psychology*, a continuation of the *Animal Kingdom* series, a consideration of this contiguum with respect to its function in the cerebral cortex is added. There is a contiguum of nerves and fibers in the whole brain, we are told, "so that there is no part of the cortex that does not share in the sensation that comes in."¹¹ Another, separate treatise of this year (1742) discusses a wholism of fibers, each acting separately but also promoting "the general cause."¹²

From this brief review, it is evident that Swedenborg's idea of the contiguum was well established early in his career, and was a concept that went far beyond the strictly anatomical descriptions common to the anatomists of his day. His vision of functional integration of the myriad body parts, in the concurrently separate and collective operation of each, is a concept which has yet to be fully appreciated by the reductionist

¹¹Swedenborg, Emanuel, *Rational Psychology*, A. Acton, Ed., Swedenborg Scientific Association, Philadelphia, 1950, n. 18.

¹²Swedenborg, Emanuel, *Psychological Transactions and Other Posthumous Tracts, 1734-1744*, Tr & Ed. by Alfred Acton, Swedenborg Scientific Association, Bryn Athyn, PA, 1984, Chapter III of Transaction No. 5, *Action*, pp. 118-19.

science of our own era. We will find this system, if we look for it, in the complex interactions of angels and their societies in the heavens, in the human form of the *maximus homo*.

Degrees and Series

The third of Swedenborg's major concepts to be examined matures in final form as his doctrine of Degrees and Series, but begins with his analysis of the nature of the connection between elements common to a relational series. Growing out of the philosophical premise that all things must by necessity participate in an *end -> cause -> effect* series of causality, Swedenborg expands this idea by application of his own experience in anatomy and the natural sciences into a practical principle beyond the hypothetical case.

No mention of a doctrine of degrees is found in *Tremulation*, but the concept is there, nonetheless. The structural relationship of the elements of the fibrous contiguum are so arranged, but Swedenborg makes no statement about this arrangement as representative of any special principle. Similarly, within this same context, the *Principia* says that the elements of the contiguum "owe their existence to their mutual dependence on each other, there being a connection, by mediums, from ultimate, whence all things have respect to their first source from which they derive their existence."¹³ He completes this thought in a later section, by stating that "the visible world is a series of finite things both simultaneous and

¹³op. cit., *Principia*, p. 20.

successive; modified and connected one with the other in a multiplicity of ways, and in a long extended order."¹⁴ The concept of degrees is here, virtually complete, but without a statement of its doctrinal status, and without a formal name.

A name does appear in *The Infinite*, in which we are told that for the world to exist, its elements must be related in a series of perfections, or degrees. "The essence of the finite consists in its subjection to degrees and the laws of succession and derived substantiality..."¹⁵ By 1734 then, we have evidence of a relational scheme governed by certain laws, by the general name of "degrees."

By 1740, this principle had become a well developed doctrine of association and connection, fully demonstrated in *The Economy of the Animal Kingdom*. Chapter VIII of Part I (entitled An Introduction to Rational Psychology) is devoted entirely to the explication of this doctrine, its practical applications, and its implications for other problems of causality. "This doctrine constitutes a principle part of the natural sciences; for everywhere in nature there is order, and everywhere the rules of order. It is a doctrine which expounds the nature of the veriest form itself, without which nothing which is predictable of anything can occur." (n. 581)

In this lengthy treatment of the subject, the general characteristics, varieties and special features of things related

¹⁴ibid., p. 190.

¹⁵op. cit., *The Infinite*, p. 116.

by degrees are fully discussed, and the fundamental nature of the doctrine is explained. This Doctrine of Degrees is immediately the most pervasive of Swedenborg's doctrines, explaining as it does the operations of nature on virtually every level, and by necessity attempting ultimately to explain the operation of the Divine into nature as well. At long last, in rational terms, the mystical paradox of pantheism appeared approachable by this doctrine of Degrees.

Correspondence

Late in the development of this doctrine, the question of the nature of relationships of things distantly placed in the hierarchy is raised, and this leads quickly to a consideration of the ultimate problem of relationship and distance - that of the relationship of spiritual to natural things. There was no easy solution to this most important question, and despite every effort to complete the progression, Swedenborg found himself increasingly frustrated by its elusive nature. If even remotely connected, then all of Creation is nothing but an extension of the Creator. But with no connection, the Creator does not participate in Creation. Disallowing either extreme, Swedenborg sought the mechanism whereby the two could be linked in action, but apart in space. The problem was crucial to solve, and simple enough in principle, but impossible to find. The Doctrine of Correspondences, the last of Swedenborg's major concepts to be considered here, proved to be the most demanding of them all.

Correspondence as a doctrine is not considered as early as

Tremulation, but we do find its rudiments in the fourth Rule of Tremulation: there are sympathetic vibrations in strings if both strings are tuned to the same key.¹⁶ Elsewhere in the book is a discussion of whole systems of sympathetic tremulations arising from a single small tremulatory force.¹⁷

It is in *The Economy of the Animal Kingdom* that Swedenborg demonstrates both the necessity and utility of a doctrine of correspondences. The discussion arises in Part I, Chapter VIII, I-IX, the same series dealing so completely with the Doctrine of Degrees examined above. Swedenborg begins by stating that Aristotle's "physical influx," Descartes' "occasional causes," and the "preëstablished harmony" of Leibnitz are all inadequate to solve the problem of spiritual/natural association. What is needed, he says, is a doctrine of order and connection to explain the true condition. This condition he defined as *coëstablished harmony* (n. 593).

Next, we are given five rules governing the relationships of individual elements of different organizational levels which *correspond* (some general rules for correspondence) (n. 648). This serves as an introduction to both the necessity and the general nature of correspondences, again called coëstablished harmony, but it offers little explanation of how things might interact by means of these relationships. His description is more anatomical at this point than dynamic.

¹⁶op.cit., *Tremulation*, p. 2

¹⁷ibid., pp. 13-14.

In Part II of the same book, however, in a section dealing with the human soul, Swedenborg again discusses correspondences, but this time with respect to the spiritual/natural nexus. In concession to the transcendent nature of this conjunction, he says here that there "is no analysis and no abstraction that can reach so high..." It is "infinitely above the sphere of the human mind." (nn. 251-52) The scientific method could not reach above its limits to find the limits of the soul.

In a final restatement of this disappointing fact, Swedenborg closes his *Rational Psychology* (and his scientific period as well) by reluctantly admitting that this knowledge of correspondences,¹⁸ which "has hitherto been unknown to the world," is still beyond his grasp. "...there are many rules to be premised, data to be set forth, and truths to be connected together before I can undertake the task... For this reason I forbear to make the attempt." He promises instead another, future book, "which more surely and quickly leads us into hidden truths." (n. 576) Unknown to Swedenborg at this time, the Doctrine of Correspondences was not to come at all, by any amount of labor or analysis. What was to come was spiritual crisis, and a period of failure and doubt, followed by the answer he could not obtain - revealed at last in a unifying vision of spiritual reality.

Revelation

This unifying vision was not an instantaneous flash of

¹⁸The doctrine is here called a "universal mathesis."

insight, but the wisdom of continuous, cumulative experience in the spiritual world. Here Swedenborg saw the connections, the relationships of things with other things, and haltingly at first, he began to see what he had not seen before. In his vision of man the microcosm of the cosmological macrocosm, or *maximus homo*, he found the nexus, and in doing so, he found his correspondences. And he found a whole lot more. The contiguum, and the finest things of nature were there, but they are no longer the center of attention. Instead of the bloods, the membranes, the fibers, and the cortical substance, he now tells us that

The soul, which lives after death, is the spirit, and is in complete form a person; the soul of this form is the Will and the Understanding, and the soul of these is Love and Wisdom from the Lord.¹⁹

In further application of this spiritual enlightenment, Swedenborg redefines the soul, its domain, and its operation in the natural body, and thus by example, defines his unifying doctrine of correspondences:

Before any statement can be made about influx and the operation of the soul into the body, it must be well understood that the internal man is formed according to the image of heaven, and the external man according to the image of the world; insomuch that the internal man is a heaven in the least form, and the external man is a world in the least form, thus is a microcosm. That the external man is an image of the world, may be seen from the external or bodily senses; for the ear is formed according to the whole nature of the modification of the air; the lungs according to the whole nature of its pressure, as also is the general surface of the body, which is held in its form by the circumpressure of the air, and so on.

¹⁹Swedenborg, Emanuel, *Divine Love and Wisdom*, Swedenborg Foundation, New York, 1988, n. 394.

From all this it is now evident that in man the spiritual world is conjoined with the natural world, consequently that with him the spiritual world flows into the natural world in so vivid a manner that he can notice it, provided he pays attention. All this shows the nature of the intercourse of the soul with the body, namely, that properly it is the communication of spiritual things which are of heaven, with natural things which are of the world, and that the communication is effected by means of influx, and is according to the conjunction.²⁰

Again, using the familiar subject of the human body for his model, he shows the correspondences at work:

What has been said may be seen in a kind of image and thus corroborated by the correspondence of the heart with love and of the lungs with the understanding. For if the heart corresponds to love, its determinations, which are arteries and veins, correspond to affections, and in the lungs to affections for truth; and as there are also other vessels in the lungs called air vessels, whereby respiration is carried on, these vessels correspond to perceptions. It must be distinctly understood that the arteries and veins in the lungs are not affections, and that respirations are not perceptions and thoughts, but that they are correspondences, that is, they act correspondently or synchronously; likewise that the heart and the lungs are not the love and understanding, but correspondences: and inasmuch as they are correspondences the one can be seen in the other.²¹

These correspondences will not be found with the microscope, or teased out with the dissection needle. They are beyond the senses, but may be observed in operation in all things of the universe. What had been Swedenborg's greatest disappointment became his *conatus* into a frame of reference where the causes of natural truths were evident.

A Perspective

Swedenborg's works, then, from his earliest scientific

²⁰Swedenborg, Emanuel, *Arcana Coelestia*, Swedenborg Foundation, New York, 1984, n. 6057.

²¹op. cit., *Divine Love and Wisdom*. n. 412.

treatises to the final volume of his theological Writings, may be viewed as a distinctive blend of elements. They are constructed partly on applied philosophical truths derived from several identifiable sources, including most obviously those of Descartes, Leibnitz, and Wolff. There are also many basic concepts which appear to be original with the author, some developed and perfected from his earliest scientific works to serve as foundations for the great theological doctrines to come. Examples of these presented here were the nature of matter, the contiguity of anatomical components, degrees, and finally correspondences.

It was this Doctrine of Correspondences, and also the concept of the *maximus homo* or "Grand Man of Heaven" which were shown to be of another, very different nature. These ideas did not grow out of Swedenborg's scientific *analysis* or philosophic argument. In fact they would not, despite his greatest efforts, come at all. These principles would come only from revelation, a spiritual vision of Creation, which made obvious those things obscure in natural light. Not doctrines of peripheral interest, these principles govern all others, and in fact are essential to any understanding of them. This was indeed the *universal mathesis*, delivered, not derived, to complete the process started so long before.

From such a perspective, it becomes unimportant to cling dogmatically to any preconceived notion of revelation as exclusive of any natural effort or design. Revelation, or

revealed truth, is spiritual truth revealed by any means whatever, in any combination of methods necessary to bring it into natural light. That it comes through human instruments is proof enough of this.²² The form and origin of the Writings, described as they have been in this analysis, are testimony to the appropriate contributions of intellectual preparation, physical effort, and finally Divine revelation in crucial combination, which together produced a unified spiritual and natural New Church cosmology.

²²Acton, Alfred II, *Paradigms of Revelation, New Philosophy*, January-June, 1991, pp 489-506.

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