

## THE NATURAL POINT AND OTHER POINTS

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(Concluded)\*

143. To understand life is not given to man. This is above his comprehension (II *E.A.K.* no. 266). Not only is this true of Life itself (*ibid.* no. 252), but also of Life which inflows (*ibid.*). Only the forms which receive life can be comprehended. Light we do not know; only the form the energy takes—transverse waves of known length, frequency, and speed.

144. It is easy to recognize that most of this is the teaching of the Writings. The style is different, the ideas the same. Of particular interest is the nature of the pure intellect, i.e., the Intellectual. This is similar to the Intellectual Truth of the Writings. The pure intellect organizes consciousness—as moderns would say—or it recognizes what is good and true in things natural. Intellectual truth does the same thing. It is “an internal perception that it is so” (*A.C.* no. 1496<sup>e</sup>). “It is like a kind of light which illuminates and gives the faculty of knowing, thinking, and understanding” (*A.C.* no. 1901<sup>2</sup>). “It is the spiritual itself” (*ibid.*).

145. Objection has been raised against identifying the pure intellect of the *Rational Psychology* with intellectual truth of the Writings, because of space—there being no space in the spiritual world. But Swedenborg says that the higher forms of his series are non-spatial, and he emphasizes this by saying that each of these organic structures is non-spatial. Thus the soul “is immaterial, devoid of extension, motion, and part” (*Rat. Psy.* no. 498; II *E.A.K.* nos. 233, 247, 297, 316, 352). There can be predicted of the operations of the pure intellect neither “time, space, place, motion, speed.” The simple fiber is “far removed from terrestrial forms. . . . Its qualities cannot be expressed in words—qualities which, if they should be expressed, would appear like paradoxes, to wit: That it consists of simple substances as of so many units or monads, which are void of figure, extension, size, gravity, and levity, and hence are not material” (*Fibre.* no. 279).

\* See *New Phil.* for April, 1951 and Jan. 1952 for the first and second installments of this paper.

## XV. THE PARADOX: THE EXTENSION OF THE POINT:

146. Swedenborg's paradox, described in *The Fibre* nos. 266a and 279, is very easy to see; but from the beginning to the present day, the resolution of this paradox has defied theologians, philosophers, and mathematicians. It is the question as to the non-space of the spiritual world and the space of the natural world, the relation between these two; or, if you please, the question and ensuing doubt of how the spatial can be created from the non-spatial.

147. Zeno started the first paradox before the year 430 B.C.—his famous paradox of the hare and the tortoise. We now call it the mathematical consideration of the infinitesimal. Descartes inaugurated a second paradox by his definition of mind and body, two mutually exclusive realities. The only quality of mind is thought, thus non-spatial. The only quality of body is extension, thus spatial.

148. Since then, many philosophers with many theories have written on the mind-body problem. Mathematicians have continued their investigation of the infinitesimal down to the present day, and some at least have concluded that it is not yet finished, e.g., Bell in his *Development of Mathematics*. These two paradoxes, the mind-body problem and the infinitesimal are usually considered to be separate and disconnected, but it seems to have been left for Swedenborg to discover that they are one and the same—in fact, that the one is the solution of the other.

149. The *Principia* and the *Infinite* give Swedenborg's treatment of the infinitesimal, in his consideration of the space of the natural point, the simple, or the primitive. We have considered this at length elsewhere. Here is room for only the briefest summary of this treatment. The simple is not spatial, and yet there is something of space in it. It is not in space unless this be simply understood. The point of Zeno gives the clue to Swedenborg's meaning. Swedenborg refers to this character of the simple several times in his later works, e.g., in the two numbers of *The Fibre* referred to in connection with the non-spatiality of the spiritual form.

150. Though the simple of the *Principia* has the characters of the infinitesimal with respect to magnitude or extension, it is not otherwise limited as is the mathematician's concept of Zeno's point. The natural point or simple of the *Principia* has form, structure,

and motion. In general, it has all the possibilities of the created universe.

151. The forms of the *Principia* which follow the simple are all very much alike. The finites and actives are all described by the same words and figures (I *Princ.* VI, Clissold ed. p. 170, Tansley, p. 189); though the third, fourth, and fifth finites differ from the simple, the first, and second finites, by being formed under great compression (*ibid.* VIII, 4). The elementaries or atmospheric units are likewise so described, save that the two higher are said to differ from the two lower (III *Princ.* V, 4-6). These are all general descriptions, however. They are close descriptions and do not exclude differences among themselves.

152. The differences between the several degrees of finites came later as Swedenborg developed his system. They are found in *The Fibre*, as already shown extensively above. Swedenborg may have had them in mind at the time he wrote the *Principia*, but I know of no evidence that he did. On the other hand, there is no valid reason why he should not have developed his system of philosophy as he wrote his works.

153. During his later studies, Swedenborg seemed to have further developed his ideas of the uses of the atmospheres of the *Principia*. In this work, the atmospheres are given only one function, the natural or, as is obvious, the physical functions. But in the later works, two functions are assigned to the atmospheres, the physical as in the earlier treatment, and also the biological, the living or the psychic. The *Economy of the Animal Kingdom*, *The Fibre*, the *Five Senses*, and the *Rational Psychology* are devoted to the consideration of those organic structures which are built out of the first aura. But that Swedenborg, in his very early thoughts, believed that his atmospheres lacked all psychic functions, seems to be disproved by his work on *Tremulation* (written in 1719): "Vital form consists mostly of little vibrations." "Life . . . is motion." (Chap. 1, no. 1.)

154. However, the idea that the first aura of the *Principia* is itself non-spatial does not seem to have appeared until the later philosophical works. In the *Economy of the Animal Kingdom*, there seems to be a beginning of this idea, e.g., II, no. 311. In *The Fibre*, Swedenborg clearly recognizes its spiritual nature, saying that it is "void of figure, extension, magnitude," and clearly

indicating that it must have some of the qualities of the simple (no. 266a, b). But that he was clearly developing his earlier ideas of the *Principia*, not throwing them overboard, is proved by his reference to his *Principia* at the time he wrote this, as well as before and after.

155. Does it not follow the dictates of sound reason to believe that Swedenborg developed his early ideas still further after his eyes were opened into the spiritual world? Many things could not be explained until this had occurred. A complete view of creation could not develop without these new experiences. Had Swedenborg thrown overboard all the latter half of his philosophical system, and started a new and totally different philosophy in the Writings, he could hardly have written that famous passage in the *Intercourse between the Soul and the Body*, no. 20, and its parallel passages.

156. Many indications of this early philosophy continued in the Writings have been advanced by various writers. This is not the place to reconsider them. It does seem advisable to point out that Swedenborg's doctrine of forms so amply presented in *The Fibre* is found almost complete in the *Spiritual Diary*. (See nos. 125-26, 132 above.)

157. But the paradox remains in the Writings. How the spatial arises from the non-spatial is not explained. The natural world arises from the spiritual by discrete degrees, i.e., by conglomeration. But how can non-spatial forms be grouped together in a mass to form the spatial?

158. The doctrine of the simple would seem to be the only solution of the paradox. It is non-spatial, and yet something of space adheres in it. To understand this, we must make some fundamental changes in our ideas of space. This is not easy, and it will take time to do so. Nevertheless, it seems the only way out of the difficulty.

159. The *Economy* seems to present this view: "If, therefore, we deprive the soul of every predicate that belongs to material things, as of extension, figure, space, magnitude, and motion, we deprive the mind of everything to which, as to an anchor, it can attach its ideas; the consequence is, that every one is left in doubt whether, after all, the soul be anything distinct from an *ens rationis*; and whether there can possibly be an intercourse between

two entities, to one of which is ascribed the privative of the other, or of one extreme of which there is no assignable notion" (II, no. 216).

160. "Habitation and place, also part, magnitude, force, and form, are predicates that suit the soul as a substance, provided only that those properties be abstracted that are generated in compounds" (II *E.A.K.* no. 247).

161. The Writings have so many new things to teach about the world of hereafter, that the underlying philosophy is, most of the time, overshadowed. Nevertheless, it often appears when the subject is the doctrine of creation or the human organic. We find the *Economy* explanation of the paradox taught in the *Arcana Coelestia* no. 444:

162. "Conversing with one who while he lived in this world had believed that the spirit has no extension, and on that ground would admit of no word that implied extension, I asked him what he now thought of himself, seeing that now he was a soul or spirit and possessed of sight, hearing, smell, an exquisite sense of touch, desires, thoughts, inasmuch that he supposed himself to be exactly as if in the body. He was kept in the idea which he had when he had so thought in the body, and he said that the spirit is thought. I was permitted to ask him in reply, whether, having lived in the world, he was not aware that there can be no bodily sight without an organ of vision or an eye? and how can there thus be interior sight or thought? Must it not have some organic substance from which to think? He then acknowledged that while in the bodily life he had labored under the delusion that the spirit is mere thought, devoid of everything organic or extended. I added that if the soul or spirit were mere thought, men would not need so large a brain, seeing that the whole brain is the organ of the interior senses; for if it were not so, the skull might be hollow, and the thought still act in it as the spirit. From this consideration alone, as well as from the operation of the soul into the muscles, giving rise to so great a variety of movements, I said that he might be assured that the spirit is organic, that it is an organic substance. Whereupon he confessed his error and wondered that he had been so foolish."

163. It is evident that Swedenborg, during the days of his philosophic work, was acquainted with the paradox of Zeno, as evi-

denced by the *Principia*, and that he was acquainted with the paradox of Descartes, as indicated by the *Economy* (II, no. 216). It would seem that he discovered that the first paradox was the solution of the second—that the non-spatial nature of spiritual things, e.g., the soul, did not deprive them of all forms of extension; that spiritual things do have the extension of the infinitesimal. This occasionally appears in the Writings. In the next section, I will attempt to show that this is involved in Swedenborg's teachings of the "Leasts" of creation.

#### XVI. POINTS AND THE WRITINGS:

164. As stated above, the use of the term "first natural point" to the exclusion of other terms has been adversely criticized more than once. While this is justified in the opinion of the writer, there is nevertheless some justification in the Writings for continuing this usage even though Swedenborg himself practically discontinued the term after writing the *Infinite*. This justification lies in the fact that the units of the first substance of creation must be very small indeed; in fact, they must be mere points if their size alone is under consideration.

165. It has already been shown that Swedenborg recognized the paradox of size in the point or infinitesimal. That is to say, size seems to imply space. If this paradox is not understood, it does not remove the fact of Swedenborg's teachings regarding the nature of discrete degrees. If so, it may be necessary to leave the paradox and to consider the implication of the law of composition of discrete degrees.

166. Let us examine the universe from below upward in terms of the Writings, somewhat as Swedenborg has done in the DOCTRINE OF FORMS as given in *The Fibre*. Objections to this could be drawn from the Writings; but the objections can have little force when the inquiry is guided by the Writings—when the true doctrine of discrete degrees is used. The objections should have no force at all when it is clear that in the Writings, Swedenborg himself suggests this approach.

167. Hence, the teaching that "Exteriors proceed to interiors, and by these to inmosts by degrees; not by continuous degrees but by discrete degrees. Continuous degrees . . . are as increases and increments from the thin to the gross or from the rare to the

dense, just as light to shade, or heat to cold. But discrete degrees . . . are as simples, congregates of these, and congregates again of these, which taken together are called a composite" (*D.L.W.* no. 184); or "They are successive compositions, confasciculations, and conglobations of the simples which are their first substances or materials" (*ibid.*, no. 207°, see also no. 195). The monad of Leibnitz is condemned because it is absolutely devoid of space, and hence "nothing can arise by heaping up (coacervationes)" (*ibid.* no. 229).

168. It has been assumed by some that there are two kinds of discrete degrees, one kind for the spiritual world, another kind for the natural. But Swedenborg says nothing about there being two kinds of formations. On the contrary, he indicates clearly that there is only one kind of creation. He says that the whole universe is formed of discrete degrees, "one from another, and one after another," and that there are three degrees in the spiritual world, three in the natural world, and three in material things (*Angelic Idea*, *T.C.R.* no. 33, *D.L.W.* nos. 300, 304, *D.P.* no. 6). Furthermore, he emphasizes that the universe is one chain hanging down from the Creator. "Those angels know that the universe is so created that it is a work continuous from the Creator, even to the ultimate, and that, because it is a continuous work, it hangs, is activated, and is ruled as a one chained together by the Lord who is the common Center. They said that the first Proceeding is continued even to the ultimate by discrete degrees" (*Angelic Idea*).

169. One of the laws of discrete degrees causes this emphasis still further: "THE FIRST DEGREE IS THE ALL OF THE SUBSEQUENT DEGREES. The reason is that the degrees of every subject and of every thing are homogenous; and homogenous because they are produced from the first degree. For the formation of these degrees is such that the first, by confasciculations or conglobations, in a word, by congregations, produces the second, and by this the third" (*D.L.W.* no. 195).

170. The oneness of the universe is also taught when Swedenborg describes the inner nature of matter. "By continuation from the sun [which encompasses the Lord] by means of the atmospheres, have arisen the substances and matters from which are the earths" (*D.L.W.* no. 305°; see also *ibid.* no. 310).

171. Since the universe is a one, i.e., a single chain which hangs from the spiritual sun; since the degrees of the universe are formed by composition of the lower from the higher, and since Swedenborg has regarded these degrees as proceeding from outmosts to inmosts, it is permissible for us to think of the universe in a similar way.

172. Suppose we take common table salt as an example of a substance having discrete degrees within it. Modern chemistry teaches that it is composed of molecules of sodium and chlorine; and, further, that both these are made up of electrons, protons, etc. Now it is obvious that the atoms of sodium and chlorine are smaller than the molecule of sodium chloride, and that the electrons and protons are smaller than the atoms. This follows from the axiom, that the part is smaller than the whole.

173. If we pass now from the scientific to the philosophical field, and assume that the electron is the fifth finite of Swedenborg—as some believe—we may carry the reasoning further and see that the finites within the fifth are smaller still. This analysis can go on until we reach the upper limit of the natural world. Here we find the smallest units which exist in the lower of the two worlds.

174. Many have objected to carrying this analysis beyond the limits of the natural world and into the spiritual world, on the ground that the two worlds are different. But is this objection valid? it has already been shown that it is not. We must then see that the units which make up the substances of the spiritual world are still smaller than the smallest units of the natural world.

175. The minuteness of the units of creation is taught very clearly if we take the obvious meaning of the words used in the Writings to describe them. The word used most often is *minimum*—translated least or smallest. Used as applying to natural things, the meaning is obvious. “The *first forms* are the substances and materials of the earth in their leasts (*minimis*), the *second forms* are congregates of these with infinite variety, the *third forms* are from vegetables fallen into dust, and dead animals” (*D.L.W.* no. 313).

176. The word *minimum* is applied many times to spiritual things. “The Divine is the same in greatest and leasts (*minima*)” is an example of this term which is used quite frequently. That

“minima” applied to spiritual things means smallest in size, and not some vague “least,” is clear from several places. “There is nothing so small (*tam minimum*) that it does not consist of degrees of both kinds” (*D.L.W.* no. 223). That is, the passage continues, there is nothing in “animals,” “vegetables,” or “minerals”; nothing in “ether and air,” “heat or light”; nothing in “spiritual heat or light,” or “love and wisdom,” in which there are not both kinds of degrees. There is also that well known passage, that the spiritual atmospheres are “discrete substances or least forms.” Quoted somewhat more fully, this number unmistakably teaches the smallness of the parts of the spiritual atmospheres. “[The spiritual atmospheres carry the spiritual heat and spiritual light] to the heavens where the angels are, and effect the presence of that Sun in the greatest and least (*minimis*) there. The spiritual atmospheres are discrete substances or least forms (*minimae formae*) arising from the Sun. And because they receive the Sun individually (*singullatim*), hence the fire of the sun is divided into so many substances or forms” (*ibid.* no. 174).

177. The minuteness of spiritual forms is also clearly indicated where Swedenborg condemns certain simple substances. These forms of Wolff are false in part because “they are not formed of smaller (*minoribus*) forms” (*D.L.W.* no. 229).

178. At the risk of repetition, it should be pointed out that the teaching of maxima and minima ties the universe into one whole rather than divides it into two worlds. “In the greatest and the leasts (*minimis*) of the universe, as well the living as the dead, there is action and reaction” (*D.L.W.* no. 263). “Since the greatest and leasts (*minima*) are forms (*formae*) of two kinds of degrees, there is a connection between them from firsts to lasts, for the similitude conjoins them . . . and the greatest consists of leasts (*maxima ex minimis consistunt*)” (*ibid.* no. 226).

179. The law of composition of discrete degrees given in the Writings requires not only that the substances of the spiritual world be more and more minute, but also that they be more and more numerous. This seems to be taught in the *Divine Providence* no. 6: “The more simple and pure anything is, the more numerous (*plus*) and the fuller it is.” It should be noted that the Latin does not confuse the two meanings of our word “more.” For the greater number, the Latin uses *plus*; for the comparative, “the

fuller," the Latin uses *plenius*. In a series of forms secondary to the central line of creation, the forms which constitute the will and understanding, it is clearly taught that the higher forms are more numerous. "They are [spiritual] forms within forms, ascending to the third degree, innumerable, discrete" (*Div. Wis.* II). "The interiors of man's thoughts, or his internal man, is his spirit itself, and in it are things as infinite in number or as innumerable, as there are in the human body, nay, still more innumerable" (*D.P.* no. 120; see also *D.L.W.* no. 215).

180. An interesting connection here is the use of the word "minute" in the Letter of the Word. Swedenborg uses the word "minutum" in his translation, and says that it signifies "Truth, not only as to its origin but also as to its essence" (*A.C.* no. 8458). Why should minute have this significance? Because truth is an activity of the spiritual atmospheres which are "minute forms" (*D.L.W.* no. 174).

181. But there are different degrees of minuteness. As we proceed from the ultimates of the spiritual world toward the inmosts, the units must get smaller and smaller. However, there must be a limit to this, unless we have an infinite series. This we do not have, because there are only three degrees of spiritual atmospheres, and, so it seems, three degrees above the heavens (*A.C.* no. 7270). The upper limit of this finite series is the spiritual Sun (*D.P.* no. 6). The substances which constitute the spiritual sun must be the smallest of all creation. This is so taught at the end of *Divine Love and Wisdom* no. 229. "[There] are innumerable [things] in the first of all created substances which are the smallest (*minima*) and the simplest (*simplissima*)." The context shows this to mean that "there are innumerable lesser forms in the first of all created substances, because they are the smallest."

182. In the *True Christian Religion* no. 33, these smallest things of the spiritual sun are called "Primitives." Note that this is the same word which is used in the *Principia* and the *Infinite*, to denote the first substances of creation.

183. The units of the spiritual sun, as to their size, because they are so small, are mere "points." But it must never be forgotten that they have other qualities than size. It is because the mathematicians use points with no other qualities than size which is of space, that "points" are condemned in the Writings. But the

term point can properly be used to apply to the spiritual sun if correctly understood. Hence we read: "Wisdom as light, or love as heat proceed distinct in appearance, but in themselves they are not distinct, for light is of heat and heat is of light, for they are one in the least point (*in minimo puncto*) as it is in the Sun. For that which proceeds from the Sun is also the Sun in leasts (*in minimis*) and hence universally in all things. It is said, every point and least (*punctum et minimum*), but it is not meant a point and a least of space for this is not given in the Divine, for the Divine is spiritual and not natural" (*Div. Wis.* I).

184. The word "point" here should not be considered a mere figure of speech; for it is identified with the *minima* or leasts which make the spiritual sun. The fact that it is said to be "not of space," aligns it with all the other descriptions of spiritual forms. Of great importance is the fact that it identifies the "Points" with the natural point of the *Principia*, because this is also said to be non-spatial or non-extended, as is likewise taught of spiritual forms, from the first aura upward.

185. This conclusion seems justified from the teachings which have been presented, as drawn from the Writings and the Philosophic Works. Admittedly, the "very small" and the "very numerous" seem to be spatial, but Swedenborg says they are not. This is the paradox which we must accept, and understand as best we may.

186. The use of the term "point" seems to be justified, and we must recognize and try to understand the paradox of size because, if we examine the universe from below upward, as Swedenborg does: 1) we find that the whole universe is made of discrete degrees; 2) that there is only one kind of discrete degrees; 3) that discrete degrees are degrees of composition; 4) that the law of composition requires that the units of the interior degrees be smaller and more numerous; and 5) that the smallest of all are the substances of the spiritual sun. It thus becomes apparent, 6) that these very small units are called "*minima*" or "leasts" or "smallest things," and in one case called "points." So it seems that the Writings and the Philosophy are one in teaching that the first of all created things are "points"—non-spatial points.

## XVII. CONCLUSION:

187. The only conclusion which it seems possible to draw from this study of "Points" in Swedenborg's early works and the Writings is that they constitute one philosophic system and describe one universe between them—not one universe in the early works and another different and corrected universe in the later. True, this universe is in some respects better described and more fully delineated in the Writings, but it is the same universe, and the complete set of forms of the earlier description are the same forms described in the later Writings.

188. The doctrine of forms is more fully set forth in *The Fibre* than anywhere else in all of Swedenborg's works. This book was prepared for the press in "the latter part of 1741 or the beginning of 1742" (*Fibre*, Acton Preface, 1918). Swedenborg fixes the opening of his eyes into the spiritual world during the following year, 1743. *Letter to Hartley*. Nevertheless, six or seven years later (Oct. 5, 1748), he wrote in the *Diary* (nos. 3482 and 3488) that he "had been led by the Lord into a perception of Forms greatly exceeding the ideas, even the greatest ideas, held by the geometricians." He then proceeds to outline the forms more fully described in *The Fibre*. The method of comprehending them is the same. The lower forms are natural, the higher are spiritual. The lower can be comprehended, the higher cannot because they are without space. There seems to be only two possible ways to understand the apparent discrepancy of five or six years in Swedenborg's discovery of the doctrine of forms: FIRST: The *Diary* refers to *The Fibre* studies; or SECOND: The Lord led Swedenborg back to his earlier studies after his eyes were opened into the spiritual world. In either case, the conclusion is the same. There is only one system of philosophy.

189. How else can we understand those references to his early knowledge of natural truth? Could the doctrine of forms in *The Fibre* be false and the *Diary* true? It would be fantastic to think so. The two systems, both based on an understanding of forms, are too much alike to be one true, the other false. Seven fundamentals, the same for both systems, attest the unity of Swedenborg's doctrine of forms: