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FORSTER W. FREEMAN, JR. Counsel,
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EDITORIAL, AND PUBLISHING COM-EDÎTORÎAL AND PUBLISHING COM-MITTEE OF THE SWEDENBORG PRESS AND THE DEPT. OF PUBLICATION OF THE GENERAL CONVENTION. ELINOR M. HART, LEONORE T. SPIERS, ELINOR M. HART, LEONORE T. SPIERS, WILLIAM R. WOOFENDEN, ERNEST O. MARTIN, ROBERT H. KIRVEN, RICHARD H. TAFEL, SR.

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Editor BJORN JOHANNSON

Address all editorial correspondence and manuscripts to the *Editor*, New-Church Messenger. 212 W. Reynolds St., Urbana,

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#### ESSENTIAL FAITH OF THE NEW CHURCH

There is one God, and He is the Lord and Savior Jesus Christ.

Saving faith is to believe in Him and keep the Commandments of His Word.

The Word is Divine and contains a spiritual or inner meaning which reveals the way of regeneration.

Evil should be shunned as sin against God.

Human life is unbroken and continuous, and the world of the spirit is real and near.

# 277th birthday

Admirers of Emanuel Swedenborg on January 29 will commemorate the 277th anniversary of his birth. Why is it that such a large number of scholars in the disciplines of science and philosophy and theology ascribe so much importance to this "Swedish Aristotle"? After all, though his genius is widely recognized, his life ended nearly two centuries ago.

For one thing, his conclusions anticipated many later developments in these fields and were often attributed erroneously to later investigators. His ideas and theories are being progressively confirmed by the results of modern scholars, many of whom find inspiration and guidance in his writings as they seek answers to life's questions.

Another reason lies in the fact that his contributions to science are less those of an independent investigator than as a developer of the findings of others. Early in life Swedenborg discovered that his ability lay more in the latter direction, saying: "There are some that seem born for experimental observation and endowed with a sharper insight than others . . . such are Eustachius, Ruysch, Leeuwenhoek, Lancisi, etc. have a natural faculty for contemplating facts already discovered and eliciting their causes. Both are gifts seldom united in the same person. Exploring the secrets of the human body, as soon as I discovered anything that had not been observed before I began to grow blind to the researches of others and to initiate the whole series of inductive arguments from my particular discovery alone . . . so I laid aside my instruments, determined to rely more on the researches of others than to trust to my own."

In this spirit Swedenborg collected a large library of extant scientific volumes and set himself to master its contents. After thirteen years of such reading and study, and while serving in the College of Mines and in the upper branch of the Swedish Diet, he published his first large work on the philosophy of creation and on the smelting of iron and copper. His Principia for the first time postulated the Nebular Theory, usually credited to Kant and La Place, the latter expanding and publishing it fifty years later.

In this first large work Swedenborg developed a number of philosophical principles which he called "universals" or "doctrines." These he followed throughout his later researches in the realm of anatomy-physiology and still later, theology. It is on these principles that the genius of Swedenborg rests—for as principles they have a timeless application.

His next area of study was that of the human body. years of study and experiment, including much time in dissection rooms in Paris, he published a series of anatomico-physiological works on the philosophy of the human body in action. Malpigius, Eustachius, Harvey, Lancisi, Fallopius and a galaxy of lesser lights had left little to discover in the field of gross anatomy, while Swammerdam and Leeuwenhoek had made more than a beginning in microscopic anatomy, or histology.

It was this rich harvest that Swedenborg entered upon and analyzed, applying to it those principles he had developed and found sound in his earlier studies. The result was a series of volumes of which Emerson has said: "These are works which, for sustained dignity of thinking are a credit to the human race."

Why then have the findings of this "Swedish Aristotle,"—so highly praised by so many deep thinkers who have earned permanent and universal recognition on their own merits—been passed over by the average medical student for two hundred years? Perhaps first because of what some regard as mystical theological works he published later in life. Equally important, for many, is that he employed unorthodox techniques in his work, using induction as well as deduction. His most important anatomical findings: Location of motor centers in the cerebral cortex, functions of many of the ductless glands, of the crossed pyramidal tract, the pituitary gland, the optic thalami and a host of others. These did not rest on a basis of "observable fact," but were the result of that "Sustained dignity

# anniversary of Emanuel Swedenborg

of thinking," which again Emerson praised so highly. An instance may be cited: A medical reviewer of a lately published work of Swedenborg—"The Cerebrum" while marvelling at the number and exactitude of Swedenborg's findings, feels called upon to characterize them as "happy intuitions." It is, however, on these "happy intuitions" as compared with the findings of present day science that the fame and recognition of the Prophet of the North ever expands and grows.

It was not, however, as a philosopher that Swedenborg was best known to his contemporaries in Sweden, but as an active man busy in everyday affairs. Few travelled as widely, or as profitably. Visiting the universities, dissecting-rooms, smelteries, mines, glass works and quarries of Europe he sent back home lists of "novelties" to be used in his homeland. New optical instruments, telescopes and microscopes went to his Alma Mater, Upsala University. When at home, he attended all sessions of the parliament, sitting in its upper chamber, and he was the confidant and adviser of every Swedish sovereign of his time—being the especial protegé of the illustrious Charles XII.

An imposing list of sketches for mechanical inventions came from his fertile brain: a machine gun, a submarine, an aircraft (the model of which in our Smithsonian Museum is pronounced by authorities as the first embodiment of aero-dynamic features essential to successful flight), a floating drydock, an ear trumpet and many others.

With his mentor the engineer Polhem he planned the locks of the great Swedish canal; and engineered the unprecedented feat of transport of a small fleet, over thirteen miles of hill and dale, to lift the seige of Frederickshall. A part of his duties in the College of Mines was the inspection of mines in the mountain region of Sweden. Well might he be enrolled among the "practical men" of Sweden when he wrote, in refusing the professorship of mathematics in Upsala: "Sweden needs nine practical men for every professor."

At the height of his fame, at fifty-seven, after having served for twenty years as a member of the Swedish Diet and having played a leading part in developing and controlling the mineral resources of his country, he retired on a modest pension. Unspoiled by fame or by royal favor, with modesty unimpaired, he dedicated the remainder of his life, as "a servant of the Lord," to studying the Bible and probing man's inner life

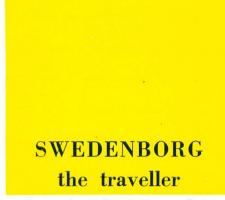
Swedenborg's theological writings (in English translation) fill thirty volumes. Originally published at his own expense, and for many years anonymously, they were distributed among the leading theologians and libraries of Europe. The revolutionary nature of their contents attracted little attention at the time, but after his death they were made the target of violent attack. Leading theologians labelled them heretical and disloyal to the established state Lutheran Church.

Swedenborg was deeply disturbed by the narrow biblical scholasticisim and by the consequent inter-faith feuding among his contemporaries. He presented a theology and a Bible interpretation which he predicted would provide the dynamic for a renewal of Christianity on a rational rather than a dogmatic basis.

The deepest and permanent philosophical value of Swedenborg's religious teachings, according to an eminent theologian, lies in his enlarged *Weltanschauung*. He taught and developed the concept of a spiritual world as a medium between God as infinite spirit and the world of nature. A world of finited spirit, it is the soul's true home in which even now we live and operate as to our inner emotional and intellectual life.

Moreover, this World of Spirit is the realm of causes. This concept lifts causes entirely out of the realm of the world of nature. It regards the latter as a procession of effects only which are, in themselevs, dead and inanimate, and which obtain all their motion, form, relation, and life

(Continued on next page)



(Denmark, Holland, France, Italy) From the *Itinerarium*, 1736-40

#### by Dennis Duckworth

EMANUEL SWEDENBORG was a great traveller. There were periods of his life when he was a great "stop-athome" for deep and productive scholarship demands long hours of quietness, seated at the desk. But it is the hallmark of genius to be able to do many things greatly, and to be able to do some great things simultaneously. Swedenborg could travel greatly; could endure the tedium and discomfort of prolonged travel; could enjoy the diversity of the ever-changing scene; and at the same time could absorb information of the deepest and most intricate kind, and produce written work of profoundest scholarship.

It is amazing to realize that, as he was sight-seeing in what was soon to be Madame de Pompadour's Paris, or wending his way by gondola through the waterways of Venice, or reviving his schoolboy memories of Cicero in the Forum in Rome, he was all the time excogitating the details of that great anatomical and physiological work, *The Economy of the Animal Kingdom*, or as it is better named, *The Economy of the Kingdom of the Soul*.

Swedenborg the traveller was Swedenborg the scholar; and the whole purpose of his four-year tour through

(Please turn to page 10)

### EMANUEL SWEDENBORG

The centuries do not dim our star:

Beyond the darkness of the night,

It shines in unabated light

And glows screne to men afar.

Replete with wisdom's lore in youth,

He knew the love of good and truth.

Beyond the power of earthly art,

His was the wisdom of the heart.

The law of correspondence knew,

And found within the sacred page

Great truths enshrined from age to age.

And beings bright from out the blue

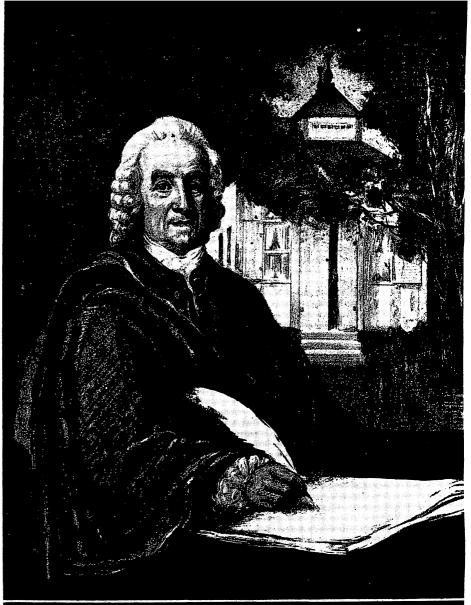
He was at home in paradise:

With him were men and angels seen
The while he walked this low demesne
That men with duller eyes might see
Great truths from out eternity.

What debtor this unfeeling age
That seeks far space for its control,
And in statistics loses soul.

Allume again the printed page,
And let men read God's secrets deep
And hearts respond and pulses leap
With high thanksgiving for this sage.

-Glenn Welmer Douglass



## EMANUEL: SWEDENBORG

from the influx of spirit from that world intermediate between nature and God.

Swedenborg thus not only influenced Kant, but also largely—through Oettinger—all the German transcendental philosophers. Chief among these has been Schelling who, in turn, has contributed to the theology of Paul Tillich. Swedenborg's ideas have also greatly influenced the thought of Goethe, Heine, the Brownings, Coleridge, Emerson, Blake, Henry James, Phillips Brooks, Edwin Markham, Robert Frost and Helen Keller. All these, and many others, among the famous have acknowledged their debt to the greatness of the Swedish savant.

Although the main line of Protestantism turned away from Swedenborg in the eighteenth century largely because of his charismatic experiences, many of his emphases, while not appreciated in his own period, are being caught up by present Protestant theology, as Dr. Walter Marshall Horton has pointed out. Again, as he has noted, Swedenborg was a "pioneer of the ecumenical movement in that he saw the 'New Church' not as a particular sect but as a movement of renewal in the church at large, and the ecumenical movement seems a partial fulfillment of this prediction."

Swedenborg must be viewed then, not only as a product of his culture, but as one whose vision was far beyond his times and whose greatness is increasingly recognized today.

From: Public Relations Dept., Swedenborg Foundation, Inc., 150 Fifth Avenue, New York, N. Y. 10011.

"For unto whomsoever much is given, of him shall be much required: and to whom men have committed much, of him they will ask the more." Luke XII, 48.

## servant of the Lord

by Thornton Smallwood

ON JANUARY 29TH, people throughout the Christian world, each in his or her own quiet way, will mark the date as being the 277th anniversary of the birth of Emanuel Swedenborg, a servant of the Lord. There have been many outstanding servants of the Lord, Wesley, Luther, Calvin, to name a few, who have all made their impact on Christian thought, and effected the lives of millions of thinking men and women throughout the world. To this illustrious list the name of Emanuel Swedenborg is always added by New Churchmen throughout the world, and to those who are members of the New Church his name should, and invariably does, head the list.

Our New Church does not, as so many claim, idolize or worship this man in any way whatsoever, but it does admire and respect him and his memory, not only for what he was and did, but more for what his writings have inspired his followers to do in the name of the Lord. He knew he had a mission to perform for mankind and the Lord. He set about to devote his life to the complete fulfillment of this mission, and those who even only *begin* to live according to his doctrines, come into a full realization that he was indeed a servant of the Lord as he himself declared.

Every servant of the Lord is given a variety of work to be done, that out of it may come forth use, use to the Lord, use to the neighbor, and use to himself. Some of the work so delegated to these servants is not rewarding in itself to the servant. Some of it is hard and difficult. Some of it seems, at times, useless and a waste of the most precious commodity known to man, time. But in the end, as the summary of a person's life is being drawn up for the inevitable final reckoning, it will always be observed that if the work allotted to that soul has been done for the sake of the triple use, the soul in question will be content, happy and unafraid.

That this is so we have but to remember that in doing the secular work allotted to each one of us, we are faithful servants to the extent we do adequately the work given to us. We are expected to do, and do well, everything that is given us to do, and as long as we do what is given us to do and do it passably well, to that extent are we rewarded by being paid and more work given to us. It is not a vicious circle but rather the law of supply and demand being fulfilled within our secular lives, an adequate supply of work being given with its own demands that it be done. The passage in our text beautifully, and perhaps startlingly, sets forth, a profound truth concerning what actually happens to a servant of the Lord and what is expected of him. Certainly it was true of Emanuel Swedenborg, and in his preparation to become one of the truly great servants of the Lord he was given everything needed by inheritance and education to fully equip him for his high office.

As a scientist his search for truth explored and mastered every known science. He mastered and practiced many of the known trades of his day and age. He spoke seven languages, had a place of authority within the bureau of mines in Sweden, and was admired and respected by his contemporaries. He was a lover of truth, explored it without end, sought it out and held it within his mind. But there was one great truth that eluded him, the seat of the soul within man.

Quest for the Soul

As the spokes of a wheel all lead to a common center about which they converge, so all the truths he learned seemed to converge to a center, not the fixed center of a dead axle on an old wagon, about which the wheel of life turns endlessly without thought or pattern, but an atomic nuclei of life so stupendous in its power and magnitude that no one before him had ever even sensed the possibility of its existence. Here was something new on the horizon of discovery, a heavenly science which could be used and made known to mankind. It was imperative that it be given to mankind so that in turn mankind could give it to others. It was time that it come into the world and be given to man. Swedenborg was fitted for it as no other man before him, or since, has ever been prepared. It could be given to him, it would be given to him on one condition and one only. If it was given to him by the Lord, he must sit down and laboriously give this heavenly information to the entire world.

Some years elapsed, and with their passing Emanuel Swedenborg himself changed. More and more he wanted to come into the presence of this heavenly information, this Divine Wisdom and Divine Love of the Lord. He sought it out in prayer. He re-ordered his life in accordance with what he already knew and found about the divine pathway that would lead him into the presence of this blinding radiance of divine love and truth, and when, in the eyes of the Lord it was foreseen that he would indeed become a servant of the Lord to eternity, the curtain between this world and the next was lifted for him so that he could come into the presence of the living truth he had so earnestly sought.

A servant does not know about all the business of his master, but even at the very beginning he is entrusted with much that is of a nature that is for the moment unknown to others. The kind of business the master is engaged in is made known to the servant. The part he is to play in carrying on the work of the master is made known to him. The tools with which the work of the master is to be done by the servant are furnished to him by the master. With these three necessities for carrying on the work being given to a servant it is then mandatory that the tools be used by the servant to do the will of the master so that the work in which he is engaged may go forward to its logical conclusion.

The work of the Lord is to fashion

souls so that they may come into the hundreds of thousands of worlds under the Lord's auspicies, be reunited to Him by the way in which they live while on an earth of the universe, and in time be called forth by the Lord out of the world, into which they were born, into the eternity of the hereafter. A servant of the Lord must therefore be made absolutely aware of the fact that this is definitely the work of the Lord and what He is primarily concerned with is the life of each of us. A servant of the Lord must also be given to know by the Lord that he has a definite part to play in carrying on this supreme work of the Lord, to be told what that work is, and how it is to be done by him. And because it is to be the work of the Lord, the servant is not allowed to use tools he himself brings to bear upon the work itself but is instead furnished by the Lord with the tools needed to do the job beautifully and adequately.

Mission of the Lord Revealed

With the coming of Emanuel Swedenborg into the midst of truth itself, he found that the whole mission of the Lord was indeed revealed to him. But he found something else, something that for him, at least, was much more profound. This was the fact that whatever was given to him he must in turn give to others. He must study the truth as it came to him in vast waves of gentle emotions. He must clothe these emotions in

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Our lesson today states quite plainly "For unto whomsoever much is given, of him shall be much required." In other words, as a servant of the Lord, Swedenborg would be given only as much as he would faithfully record for posterity. That was the purpose for these truths being given to him, and as he began to come into possession of these sweeping truths, he began to write them down for future generations, in words of scholastic Latin. From a language whose meanings were fixed and set to eternity, the truths imbedded in these writings could always be subsequently translated into living languages with always the correct meanings for that particular generation of mankind.

As Emanuel Swedenborg showed more and more that he not only intended but actually did record as best he could every divine truth given to him by the Lord, more and more was given to him. Much was given to him, and it was required by the Divine that in giving it to him the same amount would be given in turn by him to mankind. This he did, as the thirty volumes of his revelations so amply attest. And what was the logical outcome of giving such a wealth of heavenly knowledge? The outcome was that whoever could be brought to these writings could in turn become a servant of the Lord.

To the Lord's new church, which honors and reveres these writings of Emanuel Swedenborg, to its individual churches and to their members, have been given and entrusted all the truths given to Swedenborg. These truths have been given to us and to our church, not to shelter and protect as something that might be profaned by an unworthy person, but something we must offer to all who come seeking truth in its high-

est form. The Lord Himself will turn people from the truth they simply can't tolerate or would later profane. He will also see to it that the truth they can't use themselves. out of the vast sea of truth within the New Church, they will receive only academically, so that in the life to come it may be quietly removed from them. But the truths they can use within their own lives, and especially those truths they not only use within their own lives but those they will in turn try to pass on to others, will be given continually to them.

### Burdens

At times there seems to be a heavy penalty connected with being an active member of the Lord's new church. There are so few members and so much to be done that at times it seems that everyone is saddled continually with more than they should be to keep the organization and its work alive. But is not this also in keeping with the second part of our lesson? To whom men have committed much, of him they will ask the more. Does not a true servant of the Lord commit all that he is and has to the Lord? Can he withhold anything at all if his commitment to the Lord is complete and perfect? And if in committing all that he is and has to the Lord he in turn receives more and more opportunity to serve and carry on the work of the church, will not those associated with him call upon him to do more and more in the service of the Lord as His willing servant? Indeed, should they not ask the more and more to give that loving spirit full opportunity for growth?

Much has indeed been given to us in our commitment, not only by the Lord Himself but by all mankind as well. We don't always know what is involved in commitment to a church and its program of action. We don't realize until it seems, perhaps, to be too late, that in our spirit of entire commitment our moments of leisure must be forever on call as servants of the Lord to do and carry on the work He gives each one of us to do. Whether or not we break under the

load of responsibility given to us by the Lord is entirely in our hands. Mankind cannot possibly load upon us, as an organization, or upon any of us as individuals, enough physical labor to break our spirits without our consent. If we want them to break to evade the work, if we come to think committee work and responsibility are too much and are getting us nowhere fast, then we make it possible for a break to happen. The Lord alone knows, as we must all of us come to realize, that no amount of purely physical work will ever break us, and with the Lord's help and continual flowing into us from within we can not only do all the physical work we are ever called upon to do, but actually come out of each experience more perfect, more truly a servant of the Lord each moment of our life.

As proof of all this we have but to consider the life of Swedenborg. Imagine, if you can, the amount of endless and laborious work entailed in suitably clothing heavenly emotions and truths in human words, writing the thirty volumes of the revelation in long hand with a pen in Latin, with all the cross-indexing made at the same time, so that by turning to one passage of his revelation one can more and more enlarge the revelation given in each and every subject! Just to think about accomplishing such a vast piece of work may make some of us know that we would break under such a load. But Emanuel Swedenborg did not break under it. Not only did he write the volumes we know today under his name, but he personally published many of them, anonymously at first, at his own expense, and in doing so he lived to the age of eighty-four in perfect health, with all his faculties unimpaired. This alone, the testimony of his own life as servant of the Lord, proves to us that from within his life we have abundant proof that we can, must and will do whatever is necessary to make us servants of the Lord if we are truly big enough to become such in the eyes of heaven and of mankind as well.

Mr. Smallwood is lay-minister of the Chicago Society.

# REVELATION

by Frederic R. Crownfield

IN UNDERSTANDING to discuss the problem of the nature of revelation, I should like to begin with a consideration of what may be called the phenomenology of revelation. By this I mean simply "What sort of thing does revelation seem to be to those who claim it?" What are the general characteristics of such an experience, which leads those who have it to recognize it as a revelation, or specifically, a revelation from God? It would be possible for one to have an experience in which God seemed to be speaking to one, but which one would hardly claim to be revelation. What is the difference in the experience, as seen from the inside?

The prophets of Israel offer a clearcut case of this experience and what we learn from them is easly applied to more complex cases such Swedenborg's. The experience Amos is typical. Amos' message exhibits not only an exact relevance to his times but also a universal aspect. It is, moreover, not just a cry of protest, emotive language, but it has a definite content, capable of being grasped by the mind and furnishing principles which can be applied to various concrete situations. It is marked by a twofold discontinuity, a discontinuity with the past and a discontinuity with what may be called the natural order. And finally, the prophet's message comes with a claim to authority.

One of the striking characteristics of prophecy is its integral blending of the particular and the universal, the temporal and the external. The words of Amos cannot be understood apart from contemporary conditions: Assyria's conquest of the Syrian kingdom, followed by a temporary halt in their westward advance; material prosperity and lavish ritual, together with oppression of the poor and the corruption of justice; the activities of surrounding kingdoms; the nationalistic conception of the

religion of Jahweh. These are conditions to which Amos' message was so specifically and terribly relevant. But what makes Amos significant for all time is the fact that within the very specific application to his own day he expressed principles of permanent validity—that God is utterly righteous and can never abide unrighteousness, least of all can he make exceptions for those who know him best; that he cannot be served by elaborate and empty ritual; that the enjoyment of ill-gotten gain is not the mark of God's favor but the inevitable prelude to doom.

The sphere of revelation is thus, to paraphrase Whitehead slightly, the vision of eternal goodness and order incarnate in a changing world of fact. It is an insight into the demands of a particular situation, but the meaning of those demands in that situation sheds light on the demands of many other situations which may be far removed in time and space from the original occasion.

This type of experience is also marked by a sense of discontinuity which has two quite different aspects. In the first place Amos feels that what he has to say is something utterly new. It is true that he asserts that the conduct which is required of Israel is the conduct which was exhibited in the beginning of Israel's relation with Jahweh in the wilderness, but this is rather Amos' way of asserting the ultimate and universal validity of his message than a description of historic fact. The sense of radical novelty in his message is expressed in his almost violent dissociation of himself from the prophets of his day. "I am no prophet, nor a member of the prophets' guild, but the Lord called me and sent me to his people Israel." For all practical purposes his message is without precedent. The prophet sees what no one else has seen before.

### Giving Beyond Natural

The other discontinuity is even more fundamental. The prophet's message is not only something unheard of, it also cuts across the grain of those habits and customs and practices which we call natural. It goes beyond what is "natural," not first of all in the sense that it is communicated in a unique fashion, but in that it flouts the impulse to self-preservation, and the extension of that impulse to include all the things which are ordinarily thought to make life pleasant and interesting. Amos was not primarily concerned with making people comfortable and "happy" but with pointing out what God required of them, whether they liked it or not, whether or not it contributed to the sum of purely human values. As a biological organism man is the most complex and adaptable animal, whose exceptional powers may be used for the extension and enrichment of physical existence. Revelation, however, is not directed to this end at all. It summons man to a life forgetful of self, indifferent to physical death, claiming his allegiance to a world of spirit, to eternal and objective realities which may be lost in biological life and gained in biological death. It calls for action and commitment in scorn of consequences. One wonders whether Amos' encounter with Amaziah stands at the beginning or at the end of his career. But in either case the prophet spoke the Word of the Lord in defiance of the threat of death. What he did stood on the other side of the gulf between nature and spirit.

### True Authority

Related to this fundamental discontinuity between nature and spirit is the prophet's feeling that this insight in something communicated to him, something which would be impossible in the ordinary course of the functioning of the biological organism. Flesh and blood can neither inherit nor reveal the Kingdom of God.

Such experiences as have been described are inherently authoritative. "The Lord took me from behind the flock, and the Lord said to me . . ." "When the Lord speaks, who will not prophesy?" What the prophet sees exerts an inescapable compulsion.

This is the true authority of revelation. The transition from this inward compulsion to the ordinary idea of authority is easy but mistaken. There are three elements in this part of the prophet's experience—a vision. a sense of compulsion, and the belief that "Thus saith the Lord." The sense of compulsion really comes from the vision, for a similar feeling of compulsion regularly accompanies the clear and direct intuition of moral obligation, quite apart from any belief that a divine voice is speaking. Nevertheless it is not strange that, believing the Lord has spoken, the prophet should suppose that this fact was the source of the compulsion, and that the obligation to bow to it rested on every man, even though he did not have the insight which had come to the prophet. Instead of trying to invoke the insight, letting it exert its own compulsion, the prophet -and later institutions—have insisted that men should obey the injunction willy-nilly, and have devised systems of penalties applying both here and hereafter to force compliance purely on the level of outward behavior. Such external authority is doubtless necessary for some purposes of human living, but it has nothing to do with the authority which rightly inheres in firsthand insight.

This fact of the compulsive power of insight is not always clearly recognized. But it is akin to that sense of compulsion by which one is forced to accept the conclusion which follows from a set of premises. It is not, however, limited to this logical compulsion, but is present whenever values are directly apprehended in their relevance to a concrete situation. To realize that some act would be good in a given situation is to be impelled to do it. To recognize something as holy is to be compelled to fall down before it in worship.

It is quite true that these impulsions may be blocked in their expression. The impulsion produced by the vision has to compete with other impulses derived from appetite, customs, and the whole "set" of the personality, and the context in which it is placed. But that the impulsion is there and is felt, even when it is not acted on, is proved by the elaborate rationalizations by which we justify — chiefly to ourselves — our failure to respond to it. The cure



galiden med putto från 1700-talet.

for this state of affairs is not to be found in adding a further environmental compulsion, but in clarifying and deepening the insight, and in freeing the personality from the factors which inhibit the impulse.

As experienced, revelation thus has its significance in creative insight brought to bear on a specific concrete situation. Its particular religious quality which makes it revelation is its aspect of transcendence of the "natural," its character of being an absolute demand which claims man's submission and devotion above any private demands for satisfaction and enjoyment.

I would not want to assert that this sketch of the phenomenology of revelation is exhaustive, but I think it will do for our purpose.

### Revelation and Knowledge

It is necessary now to turn to another problem: Since revelation claims to give us knowledge, we need to consider certain aspects of the problem of knowledge. To say how religion is experienced is not to say what is the relation of experience to reality, especially when the experience involves a knowledge claim.

As I see it, the situation is not, given a clear-cut concept of revelation, how does some specific claim such as Swedenborg's stand in relation to this definite entity; but rather, whether-knowledge being what I think it to be—the concept of revealed knowledge has any real meaning. To put it briefly, if knowledge is essentially a report of how things are, then it makes sense to assert that one can report on matters not generally accessible to observation or investigation, and one may then ask whether an alleged report is or is not a true report, and if it is not, whether it rests on a deliberate attempt to falsify, or whether it is simply a delusion. These are the lines which have commonly been followed by those who have not been willing to accept Swedenborg's report as to what is true about the spiritual context of man's life.

Since I do not think that this is a correct description of the nature of knowledge I have no choice but to plunge into epistomology. Perhaps all knowledge is reportable, but if we make this reportability central, then I think we misconstrue the basic fact about it, even though we go on to add that the really important knowledge is the kind that gets applied. My central proposition is that knowledge is essentially not a report about the situation but a grasp of the world (not of an idea about it) mediated by a system of concepts. Truth is to be understood in terms of adequacy of grasp, not as accuracy of report, or conformity of report to actuality.

The function of knowledge is thus to secure and enlarge our possession, control and understanding of life. It does this by means of concepts and systems of concepts. These are not images of what is "out there," but are rather constructions or inventions, by means of which we grasp or experience the world. One might naively suppose that experience of the world would be much the same. whatever our stock of concepts, but this is hardly so. By no means is it true that the world would be presented to us in much the same way if we lacked our present set of concepts, except that without concepts we would not know how to name the objects. On the contrary, the infant's experience, for example, is doubtless as William James called it a "great, blooming, buzzing confusion," not because some hypothetical capacity has not developed but simply because the infant has not acquired the necessary concepts to get a grasp on the world.

Another example is offered by J. H. Woodger: "Consider a beginner looking through a microscope for the

first time at a histological preparation. If he has seen no books and has not been told 'what to look for' he sees very little, as his teacher quickly discovers if he asks the student to make a drawing. The drawing will be a confused blur of color —highly impressionistic (even supposing that difficulties of focussing are excluded). The sharply distinguished parts that the teacher sees will not be discoverable, because they are not objects for the pupil. He does not perceive them for this reason. The student is as it were 'born again' through the microscope. He is an infant in the microscopical world. He cannot perceive things in that world because he does not possess the requisite thought objects . . . his teacher, on the other hand. has lived longer in the microscopical world and has developed the requisite thoughts and therefore sees, not a confused blur, but sharply defined objects." (J. H. Woodger, Biological Principles, P. 136f.)

What Woodger calls "thought objects" are what I call concepts.

### New Concepts

It is equally important to recognize, however, that concepts do not exist in isolation, but rather form systems in which they are interrelated. Thus in Newtonian mechanics, concept offorce involves acceleration, velocity, space, time, coordinate systems, function, differentiation, limit, and so on. The significance of the theory of relativity and quantum theory in modern physics is not that they add some striking new facts to our store of information but that they replace one conceptual scheme with another, radically different one.

In a case like Einstein's the essential thing to notice is that while he had a problem, formed a hypothesis and sought experimental tests, the hypothesis which he formed had to do not simply with a postulated relationship to be added to the set of already given relationships, but was a re-examination of fundamental concepts in terms of which experience itself is had. Relativity is not a new law to be added to the set of physical laws, but a new set of concepts in terms of which physical experience is had. It is a conceptual scheme, not a theory in the ordinary sense.

This fact of the interconnections of a set of concepts, so that basic advances in knowledge consist in the development of new systems to replace old ones is of fundamental importance, and common notions about the nature of physical science are entirely off the track, from failure to take it into account.

Such a set of concepts supplies a net in which we catch experience, and this is not limited to experiences of knowing or recognizing. It is clearly exemplified in various aesthetic experiences. Students of music have evolved certain concepts such as form, harmony, rhythm, progression, scale, tonality, theme, countertheme, variations, movement, development, and so on. It is, of course, possible to make such matters a matter of study and memory with no connection with living music. whereas they should be guides enabling the listener to grasp what is going on so that his experience of the music is fuller and richer than it could be without them. It is no doubt impossible to image the experience of one who had never heard any music of any kind suddenly confronted with the performance of a symphony. But judging from the experience of those whose musical knowledge is limited, such a performance would also be "a great blooming. buzzing confusion." for the same reason that the infant's experience has this character, because he has no concepts at all to grasp it with.

If, then our environment includes a "spiritual" aspect, our ability to (Continued on page 13)

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### **SWEDENBORG**

### the traveller

See map on cover

(Continued from page 3)

Europe between 1736 and 1740 was scholarship, research; study and practice in the great schools of anatomy.

### His Diary

He carried with him a bulky volume which became the diary of his journey. Written in Swedish and known as the Resebeskrifning, it is Codex 88 of the Swedenborg mss. in the Library of the Royal Academy of Sciences, Stockholm. This was translated into Latin by Dr. Achatius Kahl of Sweden as the Itinerarium. It is the basic authority for this article, but tribute should be paid also to the fine historical study of the life of Swedenborg by the late Dr. Alfred Acton, recently published in four mimeographed volumes, which has been used.

In middle life at the time of this journey, Swedenborg was in excellent health. He was not the pale and frail scholar of tradition and popular opinion. He was strong and energetic, mentally and bodily robust, and—to use the modern expression—tough. No weakling could have travelled, as he did, often through the night, in the public stage coach, along rough and dangerous roads, through winter's snow and summer's heat. He was able to take the discomforts of travel "in his stride."

### No Eye for Beauty?

It has been said that Swedenborg had no eye for scenic beauty. The criticism is fair, up to a point; for he rarely speaks of the beauty of nature around him. He could cross the Apennines between Bologna and Florence through some of the finest of Mediterranean scenery, with nothing but the curt comment, "the road consists of mountains." allegation is, that Swedenborg, a highly skilled minerologist, could only look upon his surroundings with a That he had minerologist's eye. such an eye is an undoubted fact; and his journal abounds with comments upon marble columns, Italian mosaic work, Dutch bricks and tiles, the paved road to Mons, and the rock formations in the new dock at Copenhagen.

It should be realised, however, that in all this Swedenborg was but the child of his age. The eighteenth century as a whole had very little regard for scenic splendour. For the Romantic Era had not yet dawned; Wordsworth, Shelley, and Byron, and the German Romanticists. Goethe, Schiller, and Herder, with their passionate devotion to natural beauty, were yet to be. The simple point is, that scenic beauty was not an eighteenth century idea; and in his seeming lack of interest in the "appearances" of nature, Swedenborg was only typical of his period. He was alive to beauty, but never thought to comment upon it.

He travelled quite often on a Sunday. His movements were not inhibited by pietistic and sabbatarian scruples. But throughout his travels he was fairly assiduous in church attendance, as the journal records.

His rate of travel, checked against our modern timetables, was painfully slow; an average of between twenty and thirty miles a day. Thus, Lyon to Turin, two hundred and forty miles, in nine days; i.e. twenty-six miles per day. Or Milan to Venice, a hundred and seventy miles, in six and a half days; i.e. twenty-six miles per day.

He travelled by two means, public stage coach, and, what must have been delightful, canal boat. A considerable part of the journey, especially through the Low Countries of Holland, Belgium, and Northern France, was by *treckschuyt*—i.e. horse-drawn canal barge.

### Passing through the Customs

One may be sure that Swedenborg travelled light; all great travellers do! The lighter the baggage, the less trouble with the customs! Swedenborg left a list of the contents of his travelling trunk—change of clothing, books, six or seven bottles of medicine in a case, a little copper kettle, teapot and teacup, and a small pocket pistol. Whether he used the pistol on his travels, he does not say.

The Europe of 1740 was much more sub-divided than the Europe of today. Germany was a mass of dukedoms, and Italy consisted of a number of kingdoms, principalities, and republics. No official passport or visa was required for passing from one state to another, but the traveller was subjected to a thorough customs' search, with its accompanying irritations, suspicions, and malpractices. Books especially were suspect, and no doubt Swedenborg would have to use his powers of persuasion at many a frontier post. The effective entrée into a country was the bribery of the douanier, but as to whether Swedenborg used that kind of persuasion, the *Itinerarium* is silent.

On this long four-year journey from Stockholm to Rome and back, there were four great halting-places. The first was Paris, where he stayed eighteen months; the second, Venice, where he stayed four months; the third, Rome, where he stayed five months; and the fourth, Amsterdam, on the return journey, where he stayed for over a year. So, although his total time was about four years, his actual travelling time was not much more than nine months. For the rest of the time he was safely and comfortably housed in four of the largest and most beautiful cities of the European continent.

### His Route

From Stockholm by stage coach through Nyköping and Linköping and along the shores of Lake Vatter to the seaport of Hälsingborg.

Across the sound to the Danish island of Zealand, to Helsingör (the Elsinore of *Hamlet*), a cosmopolitan port. A five-hour ride to Copenhagen, and after a week, ninety miles across the flat cultivated fields of the island.

Across the Great Belt and the Little Belt to the mainland, and south to Hamburg.

After five days by boat down the Elbe to Harburg, and by coach across Luneburg Heath to Hanover.

Westwards across the Dutch border, through Deventer and Naarden and over the Zuyder Zee, to Amsterdam. By treckschuyt and coach to Rotterdam, Antwerp, and Brussels—where for the first time Swedenborg enters "Roman Catholic country."

South across the Flanders battlefields of the first world war to Paris.

After eighteen months, by diligence through the wine-producing regions

of Champagne and Burgundy, to Lyon.

Eastwards into the hilly country of mulberry trees to the Kingdom of Savoy. Up into the wild mountainous scenery of the High Alps, and by traineau (mule-drawn sledge) over the Mt. Cenis pass.

Down to the sunny plain of Northern Italy, through Turin and Milan to Venice—"the gayest and most immoral city of Europe."

After four months, south through Mantua, Bologna, Florence, and the hot Roman hinterland to the "Eternal City" itself. During the five months of his stay in Rome Swedenborg visits the Vatican, St. Peter's, the Forum, the Colosseum, the Capitol, the ghetto, and the Church of S. Giovanni Lateran (reputedly the oldest Christian church in the world).

The return is roughly the reverse of the outward journey, but Swedenborg stays a year in Amsterdam.

### Why He Travelled

The four cities, Paris, Venice, Rome, and Amsterdam, were exceedingly productive spots en route, as they were intended to be. The whole purpose of the intinerary was intellectual, in a thorough-going eighteenth century fashion. Swedenborg was travelling to learn; sight-seeing was a diversion, a relaxation. The Alps and the Apennines were but obstacles in the way, to be overcome as expeditiously as possible. Work came first.

What was the work he was doing in Paris, Venice, Rome, and Amsterdam? It can be summarised briefly. In Paris he was studying anatomy and practising dissection; in Venice he was writing, producing brilliant original speculative work; in Rome again he was writing; and in Amsterdam, on the return journey, he was both writing and publishing-i.e. editing, proof-reading, and generally seeing through the press that great work, the fruit of his travels, the Oeconomia Regni Animalis — "The Economy of the Kingdom of the Soul." This work is an ornament of human thought, and is all the more impressive when it is realised that it was born in transit.

There is no doubt about the fact that Swedenborg undertook the long and tedious journey from Stockholm to Paris in 1736 so that he might be a practising student at the famous school of surgery in the French capital. Soon after his arrival he found permanent lodgings in the Rue de l'Observatoire, on the Left Bank, near the Luxemburg and the Sorbonne, a stone's throw from the anatomy school. Here he not only mixed with the finest experimental anatomists and physiologists of the day, but also used the scalpel himself. He speaks of "my instruments." He says, "When I was following the direction of the muscles of the heart I found small ducts which led to the coronary vessels." Again he writes, "When I was exploring this nerve I followed it into many regions, etc." -proof positive of the practical nature of his studies.

Of course, he saw the sights of the city too. It was a place that had retained much of its medieval character, with narrow streets, unpaved lanes, and much squalor surrounding much opulence. It was the Paris of the youth-king, Louis XV, of the dissipated regent, the Duke of Orleans, and of Madame de Pompadourto-be. (For the flavor of "Swedenborg's Paris" read the excellent biography of Madame de Pompadour, by Nancy Mitford; or Sterne's Sentimental Journey).

### Other Experiences

Quite apart from the anatomical studies, there was something significant in Swedenborg's visit to Paris at this time. It was a part of the pattern of that Providential education for his Divinely-appointed mission. Paris was, then as now, the shop window of the world; and it is possible that Swedenborg would never have been able to write his work on Conjugial Love without a pretty thorough knowledge of the world, in both its noble and seamy aspects. Again, he could hardly have written, say, the Apocalypse Explained or the Apocalupse Revealed without a firsthand knowledge of Roman Catholicism-which Paris, and to a greater extent Venice and Rome, supplied. Swedenborg's anatomical tour of Europe between 1736 and 1740 taught him far more than anatomy; it taught him much that was essential for his later revelatory work.

In Venice, the city of gaiety and gondolas, he brought forth the first

fruits of his Parisian pursuits. Here he wrote that which he styled, "my first project on the brain"-1480 pages of brilliant deduction, under three general headings. The Cortical and Medullary Substances of the Brain; The Coverings and Blood Vessels of the Brain; and The Parts of the Cerebrum. He put forward -here in Venice-the hypothesis of what the medical world now calls the cerebro-spinal fluid. From the city of the Grand Canal, the Rialto, the Bridge of Sighs, St. Mark's Square, and many other glorious monuments. came a very distinctive monument-Swedenborg's amazing exploratory work on the brain.

And the story repeats itself in Rome. He continued his writing on the brain. In twenty weeks of a little sight-seeing and much deep thought and literary application he produced the following 'opuscula'—The Cerebellum; The Medulla Oblongata; The Medulla Spinalis; The Nervous System; The Muscular System; together with two works of a different character—The Way to a Knowledge of the Soul; and Faith and Good Works. Obviously, Swedenborg's was a "Roman Holiday" of a rather unusual kind!

He returned roughly by the way he had come-through Milan, over the Alps, through the vineyards of France, via Paris, Brussels, Antwerp. and Amsterdam. In Amsterdam. another city of waterways and bridges, he remained for a year to re-assess and re-arrange his written work, and to publish it as The Economy of the Kingdom of the Soul. The Economy is a great philosophical work grounded in the study of anatomy and physiology, and it represents the fusion of Swedenborg the Scientist with Swedenborg the Philosopher. He was to return to Amsterdam many times in the future, to publish many of his theological writings; so here we now leave him, our eighteenth century traveller scholar, knowing that he can find his way home, and that his journey has not been in vain.

----oOo-----

The author is a minister in the British Conference.

## **SWEDENBORG**

### as a mechanical engineer

by Othmar Tobisch

THE TERM "MECHANICAL ENGINEER" was not in use in Swedenborg's time. The term "engineer" came into use with the invention of the steam engine, which was only in its rudimentary stage in Swedenborg's time.

In the Larger Diary (4722) Swedenborg speaks of the royal engineer (and Councillor of Commerce) Polhem, his own menuensis in matters mechanical, as follows: "As the mechanician Polhem was in his lifetime of the body continually intent upon planning and constructing hoisting machines, as he was more successful in this department than anyone else, as his genius was of this nature (believing that the living principle in human beings and animals is something mechanical) he learns and gives instruction as to how various objects may be created. . . ."

All mechanical engineering, indeed all physical sciences, are based on the knowledge and use of mathematics. This knowledge was tremendously enriched by the discovery of the algebraic or differential calculus, by the German philosopher and mathematician Gottfried Wilhelm von Leibnitz (1646-1716).

As our present day universities have thrown so much of their energies into a development of nuclear physics, so the learned world of the seventeenth - eighteenth centuries thrilled to the possibilities opened by discoveries in mathematics. Swedenborg bent all his youthful energies to obtain the greatest possible knowledge and skill in mathematics. After finishing his work at the University of Upsala, he wrote to his brotherin-law, Eric Benzelius, (later to be Archbishop of Sweden and always his most trusted friend) just before leaving for London: "... and now at my departure, I propose to myself, as far as concerns mathematics, gradually to gather and work up a certain collection of things discovered and to be discovered in mathematics, or what is nearly the same, the progress made in mathematics during the last one or two centuries. collection will include branches of mathematics." (Documents I, p. 201.) From London he writes: "I visit daily the best mathematician here in town. I have been with Flamstead, the best astronomer in England. You encourage me to go on with my studies, but I think that I ought to be rather discouraged, as I have such an immoderate desire for them, especially for astronomy and mechanics." ments I, p. 211.)

During his stay in London, Swedenborg showed the coming interests of his early manhood: mathematics, astronomy and mechanics. There is also indicated his first interest in Polhem, the outstanding mechanical genius in Sweden. Swedenborg's and Polhem's relations continued for a long time, and became intense when Swedenborg was appointed by King Charles XII as assistant in mechanical affairs.

From Rostock (a harbor on the Baltic) Swedenborg indicates a list of inventions to Benzelius, (Documents I, pp. 230-232) which however remained mostly on paper. He wrote: "I have now a great desire to return home to Sweden, and to take in hand all of Polhem's inventions, make drawings and furnish descriptions of them, and also to test them by 1) physics, 2) mechanics,

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3) hydrostatics, and 4) hydraulics, and likewise by the algebraic calculus (!)" Already he thinks even of a *Society for Learning and Science*, "for which we have such an excellent foundation in Polhem's inventions. I wish mine would serve the same purpose. (*Documents I*, p. 232.)

Mechanical engineering was in its baby shoes. It comprised all disciplines which today are spread over a wide spectrum. In a letter Swedenborg indicates some of the machines he had in mind:

- Water pumps by which a large quantity of water can easily and quickly be raised.
- 2) Two machines for raising weights (loads) by means of water, as easily as by mechanical means (pulley).
- 3) Some kind of sluices (hydraulics) which can be constructed where there is no fall of water (head, potential) and which will raise boats over hills, sandbanks.
- 4) A machine to discharge by air (air gun) 10,000 shots per hour (machine gun).

"All these machines are carefully described and calculated algebraically." (Documents I, p. 237.)

In 1716 Swedenborg helps Polhem with the construction of the celebrated Carlscrona docks and the locks at Trollhättan Falls, near Whersborg. Polhem writes to Benzelius from Stiernsund, Dec. 10, 1715:

"Most worthy and learned Librarian, . . . I find that young Swedberg is a ready mathematician and possesses much aptitude for the mechanical sciences; and if he continues as he has begun, he will, in course of time, be able to be of greater use to the King and to his country, in this than in anything else." (Documents I, p. 243-44.)

Swedenborg seems launched in the career of a mechanical engineer, with his superior, recognising the genius in him, and much pleased with the expert help he is getting during construction of various public works. Polhem had established what we would call today an *Engineering Laboratory*, in which he constantly tested out his own inventions, and checked them by mathematics.

From there he writes to Swedenborg: "But if you wish to apply

(Please turn to page 15)

### **REVELATION**

by Frederic Crownfield

(Continued from page 9)

experience this as a reality will depend on our having an adequate set of concepts with which to encounter it.

But although concepts and systems of concepts in whatever realm are essentially inventions, it is true, of course, that we do not invent most of our own concepts—we learn them. Nevertheless one cannot provide a system of concepts ready-made for someone else, for a system of concepts grows out of particular problems and makes use of available materials. This is easily illustrated in the case of Swedenborg. His religious background and his scientific training posed for him a set of problems which took a particular form just because Swedenborg grew up in Sweden where the Renaissance had come so recently. He meets problems arising out of the seeming conflict of the Bible with nascent geology and growing knowledge of ancient history. His home training and his knowledge of ancient moral philosophy (his first work was a commentary on Seneca) made him dissatisfied with scholastic Lutherans' divorce between faith and practice. As for the doctrine of the Trinity, Swedenborg is accused by his contemporaries of Socinianism, which of course is nonsense, but I think there is a common factor, in that both were seeking in the spirit of the Renaissance to find a more rational solution to this problem. Finally, he was faced with an over-all spread of a spirit which today we would call scientism and humanism, and he was eager to affirm the reality of what he calls the spiritual realm.

As for materials, Swedenborg used a great many. I shall refer only to Cartesian philosophy and neo-Platonism. That Swedenborg was influenced by Descartes appears not only from his early quest for the seat of the soul, a typically Cartesian enterprise (Descartes had located it in the pineal gland), from the doctrine of existence as perpetual creation, and from his sharp separation of natural and spiritual worlds, but specifically from such a passage as I 19 where

the followers of Descartes are awarded the victory as upholders of "occasional" or spiritual influx. (This passage is essentially the same as one in T.C.R. 695. It is interesting to speculate why Potts' Concordance contains neither reference under Descartes.) The reference to "occasional" indicates that Swedenborg interpreted Descartes according to Malebranche. It was along lines suggested by Malebranche that Swedenborg was able to operate also with neo-Platonic ideas.

"Cartesian dualism makes a direct knowledge of body by mind absolutely impossible: such a knowledge is excluded not only because no influxus physicus is possible between the two, but also because, in view of the total heterogeneity of the two substances. it is not possible to see how even an idea of the one is thinkable in the other. In this respect mediation is possible only through the deity, and Malebranche takes refuge in the neo-Platonic world of ideas in God. Man does not know bodies; he knows their ideas in God. This intelligible corporeal world in God, is on the one hand, the archetype of the actual corporeal world created by God, and on the other hand, the archetype of those ideas which God has communicated to us of this actual corporeal world." (Windleband, Hist. Philos. p. 417.)

So far I have been talking about knowledge, but it is necessary now to say something about that which knowledge is of. What I have been saying implies, of course, that the relation of the realm we have knowledge of, to the knowledge we have of it, is not like the relation of a scene to a picture of it. Our knowledge is the organization of something given, by means of a conceptual scheme. But what is given is not an essentially unknowable Ding an sich, a la Kant. It has a character, but it is vague. Growth in knowledge is clarification of what is there already, rather than sheer addition. Moreover, knowledge is primarily instrumental, serving to lead to its own enlargement and to a deeper grasp, fuller participation in and awareness of reality.

The general character of this vague "given" is for religion a general sense of the demand for

rightness, a feeling for "which way is up," how the grain of things runs, a recognition of a claim, a sense of obligation, of something of supreme worth which overwhelms us and demands its own allegiance.

In other words, religious experience is not an awareness of a peculiar object or set of objects or area, but an apprehension of a dimension potentially present in all experience.

The outcome of this consideration is, I think, that a place must be made in religion for mysticism, though I hesitate to use such an ambiguous word. For the present purpose I would suggest that its meaning is to be found along lines suggested by C. A. Bennett in his Philosophy of Religious Mysticism. He calls it an example of "wholeworking" and suggests that the mystical experience is not to be identified with visions, ecstasies, trances, but is rather analogous to the experience of seizing a clue to a problem, but it has still to be made concrete, worked out in terms of the specific situation. Rufus Jones has described the mystical experience as a state of fused, undifferentiated consciousness analogous in some respects to the lofty appreciation of beauty, the absorbed enjoyment of music, the awakening of love.

If now we use "reason" to mean the process of getting hold of the world by means of concepts, then mysticism and reason are complementary, coherent elements, or poles, in all experience. We must "Seek clarity but distrust it." as Whitehead put it. By conceptualization, which involves a process of definition and abstraction, we raise into prominence certain aspects of "reality." They become graspable in concreteness, enjoyable, communicable, and useful. Yet when we do this, other aspects of reality are ignored and overlooked. with the result that our grasp on reality is impoverished and distorted. We need continually to return to the undifferentiated whole which is present to us and for us, for a fresh, deeper, wider grasp. Realty is concrete, specific, particular, but we experience it in two complementary ways-mystically as an undifferentiated whole, in which concreteness and particularity are lost, and concretely and particularly in concepts, but in this the whole is lost.

The result is that any achievement is inadequate and this sets up a tension which finds release in a return to the whole. But because this is also inadequate in the opposite way, the release creates a tension which calls for a return (now more adequate, but never completely adequate) to the realm of the concrete and the particular. Says Whitman in Song of the Open Road (14). "Now understand me well-it is provided in the essence of things that from any fruition of success, no matter what, shall come forth something to make a greater struggle necessary."

Such a view as I have sketched differs from the traditional one in a vital respect. It puts the emphasis on firsthand insight and the inherent authority which that exerts, and thus cuts across the belief that revelation is a process which went on wholly in the past and produced a body of inspired writings whose authority must now be recognized and obeyed just as the citizen recognizes the authority of the code of civil law and submits to it.

There are many difficulties with the traditional view. When the Scriptures, for example, are approached with these preconceptions they seem to exhibit all the common weaknesses of any ancient document. The text is in places imperfectly preserved. There seem to be duplications, contradictions, uncertainties of date, authorship, and interpretation, the growth of legend and partisan views of events. There seems, too, to be evidence of growth in depth of insight into the nature of God and of man's relation to him.

In this controversy the central issue is as to whether revelation is something which took place in the past and was embodied in a book or books which we now have the privilege of reading, or whether it may still be a present living fact.

But the recognition that it is the latter does not prevent the recognition of the vital importance and function of the revelation which took place in the past. To insist that revelation can take place whenever man is faced with a problem or jarred out of his complacency does not mean that the revelation in the past is without relevance to the present. Its relation to the present situation, however, is not the relation

which a law code has, or the authoritative pronouncement of an expert in some field. It does not call for us to follow blindly, but is itself a means of evoking fresh insight. To see how in some respects even Paul was limited by his age is to see in the same moment something which goes beyond the limitations. The power of the Christian scriptures, of course, or Swedenborg's writings, to bring insight is not limited to this negative function. In the end men have continued to turn to them because they did open their eyes to a vision of truth which was vital and selfauthenticating. It showed them themselves, their weakness and folly, their duty, and the grace of God, with an authority which did not rest on the assertion of somebody who was supposed to know, but on the fact that now they had seen with their own eves.

It may still be asked, why is not the vision which anyone truly has and reports, binding on others who have not had the experience? Is it not true that if I report that there is a brown thrasher's nest in the bush at the end of my walk, it is not necessary for you to see it for yourself to know it is there? This is quite true, but the religious situation is essentially different in two respects. In the first place, my religious insight is inevitably bound up with a particular occasion, as was the case with Amos. This particular character of the occasion involves not only the circumstances but also the concepts in which the experience is had and reported. From it you cannot derive a statement which can be mechanically applied to future cases. Amos, for example, roundly denounces the attempt to serve God with elaborate ritual. Now there are several Christian churches which employ a ritual probably much more elaborate than any Amos was acquainted with. No one can suppose that they have never heard of Amos' denunciations or that they deliberately and explicitly reject them. What happens, of course, is that they see these statements as applying to a situation which is essentially and inherently different from theirs. The question is as to what situation the words apply to, and that has to be decided by something beyond the words themselves. The case of the bird's nest is too simple to be relevant to the complex cases involved in religion.

Furthermore, the simple assertion about the bird's nest or about any matter of fact is a poor analogy, because after all religion is not like knowing that there is a bird's nest, but more like enjoying the experience of seeing it. The only significance my report can have for that, is to lead you to go see for yourself. The most important things in life are not those which can be tied up in a neat package of assertion, but those which can never be understood except as they are directly experienced. To learn that a painting is beautiful is not to learn a fact about it—like knowing that it was painted in Italy in the sixteenth century—but to experience its beauty yourself. That God is good, that hatred is wrong, that men are weak and foolish -these are not just bits of information which can be learned by rote and recited when the teacher calls on you. The important thing is to see them for yourself. When one does, he may well feel that they have been "revealed" to him. We may also give the title of revelation to the Scriptures, not simply as a "record of revelation" which has occurred in the past, but as they serve to call forth this experience. It should, however, be understood that this is an essentially different and secondary meaning of the term. The real revelation is not a fact or a principle which can be formulated in words, but a direct insight into the values and demands involved in a specific situation.

This insight should be carefully distinguished from what is commonly called conscience. It is well known that conscience is relative to times and places, and that what one man's conscience condemns another man's allows, though his conscience may be sensitive to what is quite indifferent to the other man. The professing Christian might well be quite undisturbed by taking an occasional cocktail, but he would be horrified at the thought of having more than one wife at a time. The orthodox Mohammedan could have four wives without a twinge of conscience, but he would be troubled if in a moment of weakness he took alcohol in any form. Conscience rather registers the formulated judgment of environment and habit, in their bearing on a situation, rather than brings fresh insight into it. It sums up the past rather than brings novelty to the present.

But whenever there is really fresh and relevant insight, cutting across man's natural impulses, and speaking with inherent authority, applying to situations broader than the particular situation to which the insight applies, there is revelation in a vital sense.

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Sometimes the question is debated among us that Swedenborgians are not Protestants, especially as originally that term was more or less a nickname, the accepted designation being "Evangelical." Evidently our question may be recognized by others in the religious world for we find the magazine "Church and State," (Washington, D.C.) official organ of "Protestants and Other Americans," saying in its September issue, "Examples (of groups which might not identify themselves as Protestants) include Polish National, Eastern Rite, Latter Day Saints, Islamic, Swedenborgian. . . ." The educated world always has found it difficult to place Swedenborg, so perhaps New Church people can understand it when they are not so easily positioned among the denominations.

- L. Marshall

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If This Be Death!

IF THIS be death

Then let me die a thousand deaths! Such peace I never knew.

Such tender drawing by the power above;

Such utter resting on the breast of love.

Look! wider swings the door,

And softly, gently, from that other shore

Comes music sweet, and light, 'Till darkness be no more.

And now, beside me stands

A friend whose smile and welcome Hands to me new powers.

I rise in glad surprise; I open wide my eyes!

Can this be death? Then death is life.

And all I saw on earth is but a lie Hiding the inward man who cannot die!

-WM. R. REECE

### **SWEDENBORG**

as Mechanical Engineer

(Continued from page 12)

yourself diligently to the *study of mechanics*, I should very much like—if you are willing—that you would put up with my small accommodations, and more frequently orally confer with me." (*Documents I*, pp. 245-46.) Polhem seeing the budding genius of the mechanical engineer and his great use for his country, is offering board and room and tutoring in mechanics, a sort of graduate study for Swedenborg.

The basic science of mathematics is still a favorite subject. In a letter to Benzelius, Emanuel proposes, on the basis of some preliminary work by Polhem, to write and publish a "Mathematical Course" consisting solely of geometry, arithmetic and algebra.

All power available to the engineer at that time was limited either to horses, the wind, and most of all to falling water. Most of the construction was by wood and small re-inforcing pieces of forged iron. In the illustrations of that time we see therefore, great water wheels driving forging hammers, small rolling mills, mine lifts, and such like.

Swedenborg's efforts for many years were bent on the improvement of these mechanical means of enlarging the available power.

The age of steam was just knocking at the door. In February 29, 1720, Swedenborg writes to Benzelius a letter to which is attached a copy of a letter recently received from England, from a certain Kohlmater, assistant in the College of Mines, dated from Newcastle. This Swede was observing there the first steampump in action! (Documents I, p. 321).

This was the beginning of the steam engine, which was perfected finally by James Watt.

Not until iron and steel could be produced in greater quantities, and in better quality, was the advance of mechanical engineering secured. Swedenborg saw this with a clear eye and all his lifelong days he was intent, as member of the Board of Mines, not only to improve mining, but much more so, the production of steel. As it always was, is, and will be, the established interests defended

their position to the bitter end. In his case, it was the copper industry. The battle for the preponderance of iron and steel was fought in the Swedish Board of Mines, as bitterly as in any other.

It was to Swedenborg's credit, that he, in spite of holding large interests in copper mines, advanced, against his own personal interests, the Swedish iron industry. In Dec. 13, 1933, the NEW-CHURCH MES-SENGER reprinted an article from the *Reading Puddle Ball*, a trade journal issued by the Reading Iron Co., describing Swedenborg's influence in the history of iron.

To utilize better the power of the wind, Swedenborg wanted to improve the shape and contours of the then sailing ships. We have from his hand a description of a suggested test basin, with model sailing ships, in which the resistance of the hull in the water should be mechanically ascertained. All modern shipbuilding industries have these test basins used for any new construction, and the airplane industry has adapted the idea to its wind tunnel tests. This suggestion appeared in the first Swedish Scientific Journal, started by Swedenborg in 1716, Daedalus Hyperboreus. (Vol. VI, pp. 6-9—1717.)

Young Swedenborg was eager to put the inventions and calculations of his tutor, Polhem, into print, and at the same time, also his own, for he was a very ambitious young man, who wanted to make a name for himself. The first issue of this Daedalus Hyperboreus, or "Northern Daedalus" after the Greek inventor of the flying wings was published in 1716. There are mathematical calculations and a drawing of a mine-lift, for elevating ore buckets from the shaft. The drawings are not too explicit as to how the power from a water wheel on the left, is transmitted to rollers, over which the ropes run, to which the buckets are attached. A second drawing improves on the first, making the operation continuous by rope ladders running over shafts, something like one sees nowadays on mechanical ditch-diggers. Mines were plagued by water seeps, and dumps had to be established from which this water was pumped to the surface. Swedenborg designed a waterpump operated with air.

After several issues (written in

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Swedish and Latin) this magazine ceased to exist, perhaps because Swedenborg and Polhem ran out of inventions for a while.

Becoming more and more involved in mining operations, and being at last appointed Assessor of the Board of Mines (on which he served dutifully till his resignation in 1747, after he had been recommended for the top position: Councillor of Mines) his engineering interest concentrated on the operation of mines, the purification of ores and the making of iron and steel: metallurgy and mining. (See *De Ferro*, Leipzig, 1734.)

One may be interested how these metallurgical and engineering knowledges, theories and practical arts and skills, expressed themselves in his other writings.

Already in 1719 he wrote a study, which he had entitled: Anatomy of Our Most Subtle Nature — Showing That Our Moving and Vital Force Consists of Contremiscences, e.g., vibrations, tremulations, tremblings.

This antedates our modern theories of wave motions, ondulations, radiation—motion, etc. In other words the title could be: LIFE IS MOTION, which of course, Aristotle postulated in his philosophy.

In a foreword to this little treatise, the English translator, C. Th. Odhner, writes (in 1899): "Swedenborg resumed in 1735 his study of the human body, which he fitly terms 'the temple of all the sciences.' The great works on The Brain, Life Sciences, Rational Psychology, Organs of Generation, and others, now follow one another in rapid succession. Through all these magnificent works of philosophical science there vibrates a key note which many years before was struck in the work On Tremulation. Nay, even in Swedenborg's latest theological writings there will be found

many traces of the principles and arguments first presented in this little treatise."

Another work, I would like to cite as an illustration of how Swedenborg applied his mechanical knowledge to philosophical subjects, is the *Outlines* of an Argument on the Infinite and The Mechanism of The Intercourse of Body And Soul. Leipzig 1734.

In a lengthy foreword the translator, the great Swedenborg scholar, and member of the Royal College of Surgeons in London, the Hon. J. J. G. Wilkinson, says: "The reader will at first glance see, that the work before us has a mechanical tendency, and aims at a reality of knowledge on the deepest subjects, such as the moderns themselves (this in 1847)—often accused as they are of a mechanical spirit—would scarcely venture to hope for, even in the sciences of chemistry and physics."

This work tells us not to be ashamed, that we "live in a mechanical age. The laws of the mechanics, do they not come from the Infinite?

"In justification of a mechanical element in philosophy, we might fairly appeal to the important part which the mechanic sciences are performing in the advancement of the race." Wilkinson never suspected that they could be so perfect as to assure a total self-destruction of all mankind.

The second part of this work is called by Swedenborg, the *Mechanism* of The Intercourse of The Soul and The Body. In modern parlance this could be phrased "Attempts through basic sciences to find the inter-relationships of psyche and soma." The psyche is subject to the laws of motions, vibrations, which obtain in the natural sphere. Nature and spirit interact on each other by definitely recognizable laws. With the help of these laws we can find these relationships.

On the basis of these presuppositions the modern disciplines of Psychology, Psychiatry, Neurology, Psychosomatics, are built. It would require Swedenborgian psychiatrists to translate the philosophic terms of the eighteenth century, into modern images, concepts, theories. For instance how shall we understand this law: "No perceptible operation can take place between the soul and the body, without some previous mutation. No mutation can happen without motion in the natural sphere." Are these actual vibrations? energywaves beating on the receivers in the body? brain waves indicating emotions? chemical changes in the bodyblood? in the lymph-fluids? all that and much more not yet discovered?

Bringing back Wilkinson, who divined the scientific tendencies of the coming atomic age, we read: "Perhaps we have dwelt at too great length on the seemingly mechanical tendency of a portion of Swedenborg's philosophy. We have, however, taken this course, from the experience that mechanical views have been alleged against him (ES) as a special disqualification.

"To remove this objection, we have endeavored to show that *mechanics* are the last exhibition of spiritual forces and that so far as they correspond to those forces, and work for spiritual ends, they too, like the human form, are spiritual forms and not merely material.

"Swedenborg—not of his own right alone,—but by Providence and by nature, furnishes the just-spiritual complement of the Mechanical Ages."

Thus we might say, in conclusion, that this period in Swedenborg's life when mechanical interests, *predominated* surely has contributed vitally to his further understanding and conceptual formulation of the great spiritual forces, forms, powers, energies, which he was later allowed to see in all their glory.

The author is the pastor of the San Francisco Society, and General Pastor of the California Association.

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Hawkes.—George Wrigglesworth Hawkes of Edmonton, Alberta, passed into the higher life, Aug. 30, 1964, at the age of 86. Resurrection services for him were held Sept. 2, the Rev. Henry Reddekopp officiating.