

AN APPROACH TO CONTEMPORARY QUESTIONS
IN THE LIGHT OF ANTHROPOSOPHY

The
Golden Blade

THE WORLD ASH: YGGDRASIL

*A Lecture (hitherto untranslated) given in
Berlin on October 7, 1907.*

Rudolf Steiner

ANCIENT EUROPEAN CLAIRVOYANCE

*A Lecture (hitherto untranslated) given in
Berlin on May 1, 1909.*

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MITHRAS AND CHRISTIANITY

A. C. Harwood

PHYSICAL AND ETHERIC ENERGIES

E. Pfeiffer

⌘ AFTER EINSTEIN'S DEATH

E. Lehrs

KB EPOCHS OF EVOLUTION

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(✓) DANTE'S EXILE

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✓ THE FUTURE OF THE ENGLISH LANGUAGE

Adam Bittleston

PERCEIVING, THINKING AND KNOWING

Peter Carpenter

GOOD FRIDAY

Joy Mansfield

Poems by *Sylvia Eckersley* and *Arnold Freeman*
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Edited by **Arnold Freeman** and **Charles Waterman**

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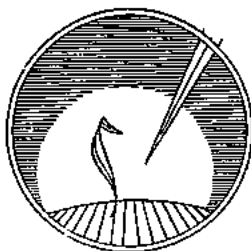
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Anthroposophy, a way of thought rather than a body of dogma, springs from the work and teaching of Rudolf Steiner (1861-1925). He spoke of it as "a path of knowledge, to guide the spiritual in the human being to the spiritual in the universe".

The aim of this Annual is to publish writings which bring the outlook of Anthroposophy to bear on questions and activities relevant to the present time.

The title derives from a reference by Rudolf Steiner to an old Persian legend. "Djemjdid was a king who led his people from the north towards Iran, and who received from the God, whom he called Ahura Mazdao, a golden dagger, by means of which he was to fulfil his mission on earth It represents a force given to man whereby he can act upon and transform external nature".

THE WORLD ASH: YGGDRASIL

Rudolf Steiner

*A Lecture (hitherto untranslated) given in Berlin on
October 7, 1907**

DURING the next few lectures we will study the relationship of what one might call occult or mystic symbols to the astral and spiritual worlds. You are constantly meeting signs, symbols, stories which are dismissed by complete materialists as no more than poetic fancies. They assume that such things arise in some way from the imaginings of simple people and they regard them as meaningless nonsense. Or you may meet well-disposed people who speculate as to the meaning of such symbols as the pentagram, and so on. At the Munich Congress we made it clear that we ascribe a certain importance to occult signs. The true occultist, however, does not speculate, but tries to find the actual facts. You will never discover the meaning of occult signs through philosophical speculation, and much that is said and written about their meaning is valueless, because it comes only from thinking. Nevertheless these signs are important to us, for they are, as it were, instruments through which we can rise into higher worlds.

To-day let us consider another form of symbolism; it is one already familiar to you, and we will now try to discover its real origin and value.

Before we pass on to this, we must make some preliminary observations about human beings. You will soon see why a subject seemingly quite remote is introduced.

Let us go back to a point of time in evolution familiar to all of you. You know that our own age was preceded by the Atlantean age. In primeval times there was land where now lies the bottom of the Atlantic Ocean, and the territory we now occupy was covered far and wide with water. There, in Atlantis, our forefathers dwelt, for in truth the European population has for the most part sprung from the descendants of Atlantean peoples. There was once a migration of the peoples from west to east. From ancient Atlantis, which lay between present-day Europe and America, they travelled far over towards the east, when the floods which now constitute the Atlantic Ocean engulfed this earlier part of the earth.

In the last third of the Atlantean age, a little band representing the most advanced people of the time gathered in the north-east, in the region of present-day Ireland. The whole of Atlantis was

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covered with thick, heavy mist, and in the memory of the Germanic peoples was called "Niflheim."

In this ancient time, when the air was continually weighted with heavy masses of water, soul-life, too, was quite different. There was still an ancient clairvoyance; at that time men could see into the spiritual world. When you approached anyone, certain colour-phenomena arose before your soul which told you whether the man was sympathetic to you or not. It was the same with animals; when you approached an animal, you could judge whether it was harmful to you or not. A primitive clairvoyance existed in Atlantis.

Mankind passes through various stages of evolution; men could not remain in that dull clairvoyance; the present-day method of perception through the senses had to come. The old clairvoyance had to fall into abeyance for a while, though it will have to be won back again in the future, as an addition to the present clear day-consciousness. What is to-day the basis of our external culture—the use of reason, of intelligence—was not at the disposal of the old Atlantean clairvoyants; it had to be acquired. Man's eyes and his ears, his organs of sense-perception, had to focus on the outer world; the inner spiritual eye withdrew for a while. Thus the migration of our forefathers towards the east was an event associated with the loss of the ancient clairvoyance.

In was in this little band of people, living in the neighbourhood of present-day Ireland, that the faculty of calculation, of counting, had first developed. They were the first to travel towards the east. And as the floods continued to pour in, more and more people followed them; they populated the soil of present-day Europe. A double vision of things existed in these peoples; they had a capacity for observing the outer sense-world, for counting, calculating, combining, which eventually made possible the technical progress of the present day. But in their hearts they bore also something else—memory and longing, the memory of the worlds into which they had gazed, and the longing somehow to reach this spiritual world again. Great numbers of people brought with them to Europe the remains of the ancient clairvoyance. Many of our European forefathers, if they sat quietly in the twilight or in the night, could still see vividly into the spiritual world. Many had retained, not only the memory of that world, but even, in certain exceptional states, the capacity to see into it. Any others had a characteristic which has vanished in the course of evolution far more than one realises—a characteristic which was then very common, and far more intense than anyone can imagine to-day; I mean the capacity for trust, for genuine faith. Those who knew what to say about the spiritual world found faith, because love and trust, especially in European countries, were potent forces. The critical attitude, the insistence upon personal conviction which one meets to-day, was something which occurred to no one. When we look at this ancient population, we see that

deep down in their souls they were fully aware of the spiritual world which lies behind this sense-world.

Now we will try to understand how the new perception of the man who looks at objects through his senses came into being. I have already hinted that something happened to that little band of men in the north through whom calculating, counting, combining became a human faculty. I indicated that man's etheric body was then drawn into the physical head. Whereas formerly the part of the etheric head in the region of the eyebrows was outside, it was now drawn inwards, and the two parts became one. Thereby man attained to self-consciousness, to ego-consciousness. In Atlantean man part of the etheric head, which is to-day coincident with the physical head, projected far beyond the head—hence man's insight into the spiritual world, his clairvoyance.

Now let us transplant ourselves for a moment into the souls of this Atlantean population, first into those primeval times when men still had their etheric heads far outside their physical heads, and then into that period of Atlantis when the two had already come to coincide. The Atlantean was able to see this drawing-in of the etheric head, and it seemed to him very strange. Let us try to bring this before our souls. I will describe it to you.

"Whence come the faculties which I am now acquiring?" said the Atlantean to himself. "They come from the external world." Previously he had seen a spiritual world outside him. It was all around him. What did it show him?

If you could suddenly become clairvoyant in the same measure as the Atlantean, what would happen in your souls? You would see spiritual beings all around you. This physical world would be peopled by the beings of the astral and spiritual planes. You would actually see these beings. Where would they have come from? They would come through your own faculties, faculties which are now dormant in you, but would then be awake. It would seem to you as if something streamed out of your own selves. But in former times this something had first to stream in. All the spiritual conceptions that man is now able to acquire were then living beings outside him. The Atlantean watched these beings draw into him. He said to himself: "I begin to see things with my eyes, to hear sounds and tones with my ears; I begin to see what is perceptible by the senses." This capacity streamed into him from without.

Let us take another look at old Atlantis. The land was covered with large masses of watery mist. This watery mist varied in density. Especially in the first and last periods of Atlantis, it was different in the neighbourhood of present-day Ireland from what it was in the other regions. In the south this watery mist was warm, like warm or hot vaporous matter; toward the north it was cool. Towards the end of Atlantis it became colder. It was this northern cold which brought out in men, as if by a spell, the new vision, the

new soul-life. Never would the faculty of judgment, the intellect, have been able to make its first appearance in humanity in the fiery glow of the south. The Atlantean in the neighbourhood of Ireland felt the sense-organs stream into him, organs which permeated him with the capacity for seeing things outside him. He felt that he owed this to the cooling of the air.

The outer perception of objects is associated with nerves. For each of our sense-organs a nerve goes out from the brain—one to the eye, one to the ear, and so on. These nerves, which to-day enable men to bring sense-impressions to consciousness, were inert until the outward vision of things came into existence. The Atlantean clairvoyant thus saw coming towards him the forces which made these nerves into sense-nerves. He experienced the whole situation as streams flowing into his head from outside and then penetrating the nerves in his head.

Now among the nerves which were brought into activity at that time, nerves which we can still trace anatomically, there were twelve pairs. Ten of them are in the several parts of the human head, to set the organs in movement . . . for instance, when you move your eyes, there is an eye nerve, and this is not the nerve of sight. Thus there are ten pairs of nerves emanating from the human head, and two pairs of nerves that travel further downwards. And the Atlantean felt twelve streams enter into him; he saw them. What you now have in yourselves as nerves seemed to him to be brought about by twelve streams entering into him.

While it is true that we owe the twelve nerve-fibres to the fact that the air became colder, that the whole of "Niflheim" became a cold land, something else also was needed. Up to this time the heart had had quite a different task. In a being who conjured up his environment clairvoyantly before the soul, the blood circulation had to be quite different from what it now became for this Atlantean, as the external world gradually revealed itself to his external senses. This transformation of the heart was brought about by the warmer region of Atlantis. You must imagine a people who began to undergo a transformation of the heart, while at the same time the other part of their nature was being stimulated by the cold north.

The streams which came from the north transformed the human forehead to such an extent that man could become a thinker, an observer through the senses. These northern forces, acting on the twelve streams—this is what made man into a thinker. And the warm stream gave him feeling, gave him sensitivity, and also his present-day capacity for living in the senses. Because the heart, now filled with blood, had become a different organ, bodily nutrition also had to change. For with the change in the blood circulation, the sap nourishing it from without had to become quite different. Man was worked upon from two sides, so that on the one hand a physical body could be created capable of becoming the bearer of the brain, while on the other hand the physical parts could

be supplied with the blood that was needed by this transformed man.

All this came before the ancient Atlantean seer as a picture. The inflow of the spiritual was represented as twelve streams coming down from the cold north, and that which remoulded the heart was what pressed upwards as fire from the south. This was his actual astral vision. And a picture was to be seen for what transformed the physical man with his bony system into the man who sees in the modern way—the picture of primeval man. And again a picture for that which nourished him, the picture of animal nature.

How was all this put before the people? They would not have been able to understand it: they had still retained an old clairvoyance. What had to be said to convey to them the truth in a form they could understand? This is what one would have had to say to them: "Before you were able to see into the world which you now recognise as your world, there was nothing but a dark, yawning space like a chasm; you are gradually projecting pictures into this space. But all that is there in space has come from this chasm."

This is the ancient Germanic chaos. Then the seer would say: "From the north there flowed hither twelve actually visible streams, and from the south came sparks of fire—it is this that has brought about the new form of the digestive system." And he would go on to say: "Through the union of the fire-sparks with the twelve streams, two beings arose—the Giant Ymir and the Cow Audhumla." Who is this giant Ymir? He is the thinking man, who has come into being out of the chaos; he is the new body which has been created by the twelve streams. And the cow Audhumla is the new nutritive element. In the new man the giant Ymir and the cow Audhumla are united. Here we have the origin of the Germanic version of Genesis.

The ancient Druid priest derived his wisdom from what had actually occurred. He knew that he would be understood if he described what was presented to the seer in the astral—the twelve streams which come from the north and constitute the twelve pairs of nerves, and the sparks of fire which are emitted from the south and unite with the northern streams.

And how beautifully it is told! The two worlds have arisen from the cold Niflheim and the hot, flame-flashing Muspelheim—so we are told. Niflheim releases the twelve streams, Muspelheim the sparks of fire. And now let us go a stage further.

We know that in the moment when the etheric body of the head united with the physical head, the ego arose as a clear self-conscious ego. Of course, man had already felt himself to be an ego-being, but until then ego-consciousness had not dawned on him. What had happened to him? There was the influence of the twelve streams which had permeated his head with the nerves of the brain:

but there was also the influence derived from the union of the trunk, the rest of the body, with the head—derived, that is, from the cow Audhumla. These two things united at that time; you can see this clearly in the human being. What came from the south is connected with an earlier, quite different formation which had developed out of a quite different human condition. What is new is the sexual principle. This was one thing which had established itself clearly in man. The second new thing was the form of the heart itself; and the third thing, which developed little by little at this time, was speech. Speech, too, is a creation of Atlantis. Without speech you cannot envisage the higher spirituality. Neither can you think of it without the self-conscious sexual being. Thus the new man is marvellously organised. His thinking, his vision of external objects, is membered into his head; as a sort of counter-balance to his thinking we have conscious sexuality, the conscious heart-principle, and conscious speech, which is the expression of his inner world.

All this, too, is imaged on the astral plane, as well as the twelve streams. It appears as a tree with three roots—sexuality, the heart, and speech. These three are in communication with the head. The nervous currents stream unceasingly to and fro, like a being who is constantly running up and down—like a being in whom the lower part seems to be in continuous conflict with the spiritual. These two streams are in constant conflict with one another. The nerve fluids are all the time flowing down from above and back again. The clairvoyant sees this happening. That is really the picture of the coming into being of modern man in preparation for post-Atlantean times.

The ancient Druid priest, too, had to speak in this way. He had to say: "This can be seen, this is how it is." The people did not understand it, but he could describe it to them in a picture. Therefore he said to them: "What exists in man to-day, what is now living in him, the ego-personality, comes from three sources. One of these sources, which existed previously but has only now come to consciousness, derives from Niflheim. But there is a snake gnawing all the time at this particular root, from which the whole tree originates. This snake is called Nidhoggr." One can really see this snake biting; for the excesses of the sexual principle are something that bites at man.

Then we have the *second root*, which is there because the new life of man comes from the heart. Everything he does comes under the impulse of his heart; he feels what makes him happy or unhappy; he feels the present, and also what he owes to those with whom he grows into the future—the real human destiny felt by the heart. And the priest-sages said: "Here is the root beside which the Norns sit and spin—the three Norns, Urdh, Verdhandi and Skuld, past, present and future."

The *third root* is what man experiences as speech. Hence Mimir's Well is at this root—Mimir, who drinks the draught of wisdom. And up above the tree-tops reach into the realms of the spirit; and out of the spiritual come drops of the fructifying nerve-fluid. Hence it was said: "Up above is a she-goat who perpetually fructifies what is down below." And this fructifying principle was also described as a squirrel which runs down from above and carries back grumbings from below.

The new man in the new world is like a tree, an ash that has three roots. One root comes from the north, from Niflheim; the second from the warm Muspelheim; and the third from Mimir's Well. They are fructified from above by the goat, and a squirrel runs down and returns with complaints from below. The whole is called 'the World Ash'—Yggdrasil. In this tree the cosmic forces are gathered together. The tree is the 'ego-bearer.' Yggdrasil means ego-bearer. 'Ygg' is 'I', and 'drasil' comes from the same root as the German verb *tragen* (to bear).

Now try to remember how many learned and ignorant, clever and stupid explanations of this Germanic myth have been given. None of them has any value for occultism. For occultists the statement that every sign—and even stories are signs—has its reality in the spiritual world holds good, and only when we know what is in tune with the spiritual world do we know the true significance of signs and myths. No one can revive and make use of the forces that reside in the Germanic line of development who does not approach myths in this way. No sign has a significance in occultism that cannot be seen in the higher world, and the ancient myths are signs, realities. If we are able to decipher the writing, we gaze deep into past ages, and at the same time the myths fructify us. Our abstract science can point to the twelve pairs of nerves; the occultist leads us into the entire cosmic connection. And in this way the whole connection becomes clear, as a symbol for the hidden spiritual. Therefore the occultist says, "If a man knows himself rightly, he knows himself to be a symbol."

Man himself, as a transitory being, is a symbol for something that is imperishable. But when he recognises the imperishable, there dawns in him the recognition of his own imperishable core.

Translated by Dorothy Lenn.

ANCIENT EUROPEAN CLAIRVOYANCE

Rudolf Steiner

*A Public Lecture (hitherto untranslated) given in Berlin
on May 1, 1909.**

IN the course of these winter lectures I have repeatedly said that there is such a thing as knowledge of supersensible worlds. We have discussed how the human being can attain to such knowledge, and we have many times spoken of its fruits. I want now to give two lectures which will serve to illustrate what we mean by knowledge of the higher worlds.

With the help of two examples, out of many that might have been selected, I propose to show how clairvoyant knowledge developed in a certain region—the kind of clairvoyant knowledge that has been, or ought to have been, left behind by present-day humanity. Clairvoyant knowledge given by natural forces, by natural capacities, will be my subject to-day. Next time I will discuss, again by means of examples, how clairvoyant knowledge can be acquired through strict training, by specific methods. To-day we will speak of the knowledge that led our ancestors to a form of spiritual perception which has now been superseded; next time I will deal with the kind of clairvoyance which has existed in all ages, but which has to undergo a different training from epoch to epoch.

I have already pointed out that Spiritual Science speaks of an evolution of human consciousness. What we call our consciousness to-day, the consciousness whereby we recreate the outer world within us in thoughts, in mental images, in ideas, is only one stage of evolution. Another stage preceded it, and yet another stage will follow it. When anyone speaks to-day of the theory of evolution, he usually means the evolution of outer form, of the forms of material existence. Spiritual Science speaks of an evolution of the soul, of the spirit, and therefore of consciousness. We can look back to an earlier form of consciousness which has been superseded by the present form, and we can look forward to a future form of consciousness which will develop only gradually. The earlier state of consciousness we may call subconsciousness, and the consciousness to which our present consciousness can be developed, by spiritual-scientific methods, we may call superconsciousness. Thus we can differentiate three consecutive stages—subconsciousness, consciousness, superconsciousness.

In a certain sense all consciousness to-day is a stage of development of consciousness in general, just as the forms of the higher

animals are developments of the universal animal form. Present-day consciousness has evolved from a lower stage. It is surrounded by external objects, which it perceives through the senses—hearing, sight, taste and so on. From what was first perception it makes concepts, mental images, ideas. Thus an external world of objects which work upon us is mirrored in our consciousness.

Subconsciousness was not like that. It was of a far more direct nature. We may call it a lower clairvoyant consciousness, because whoever possessed it did not approach objects with sense-organs and straightway seek to make concepts of them, but the concepts were there directly. Pictures arose and faded away. Let us suppose that the clairvoyant consciousness encountered an external object which was dangerous to it. To-day we see the object, and the mental image called forth by the sight of it brings about the consciousness of danger. It was not like that in the earlier clairvoyant consciousness. The external object was not perceived in clear outline, especially in the earliest times. Something like a dream-picture arose and revealed whether the object was sympathetic or unsympathetic. The fluctuating pictures in dreams to-day will serve to illustrate this for us. The dreams of a normal person to-day have no real connection with any outer world. But suppose something quite definite were to correspond to every picture which arose in us like a dream-picture, one picture occurring in case of danger, another in the presence of a useful object, then we could say that it was immaterial whether we were awake or dreaming, for we could direct our lives according to these pictures!

Our present consciousness has developed out of such a dream-life, which allowed the inner nature of things, their inner soul-quality, to rise up before us. And this dream-consciousness has passed through manifold forms before reaching its present form. If we look back in history as it is revealed to us by Spiritual Science, we reach at last, in the far-distant past, a state of soul in which the external was not perceptible, but in which the surrounding world, possessed inwardly by the soul, was perceived by an old clairvoyant consciousness. But this consciousness had in consequence one attribute which, contrasted with the fundamental attribute of the soul to-day, must be designated as imperfect. It was not *self-conscious*; the soul could not say "I" to itself, could not distinguish itself properly from its environment. Only because external objects with sharp contours confront the soul can it distinguish itself from them. Thus man has had to purchase his self-consciousness by the surrender of his old clairvoyance. All evolution is an advance which at the same time involves the renunciation of certain advantages of the earlier stage. Now at each stage something from the earlier stage lingers on into later times, and in certain circumstances we can, from such legacies of the past, see the earlier conditions projected into the present, where they rank as abnormalities.

* From a shorthand report, unrevised by the lecturer. Published by kind permission of the Rudolf Steiner Nachlassverwaltung, Dornach, Switzerland, and in agreement with the Rudolf Steiner Publishing Company.

We find traces of such atavisms even in the human body, as for example in the muscles round the ear, which in an earlier stage moved the ear. In animals these muscles still have a purpose; in human beings they still exist, but few men are able to move their ears voluntarily. At one time human beings had a form of body in which such muscles were needed. To-day they are just relics of the past—vestiges of an earlier stage of evolution.

Just as we find certain organic survivals in these outer structures, so, too, we find remains of other early evolutionary conditions. Thus we see traces of the old clairvoyance projected right into our own time, but clouded and changed by our present stage of development, and hence abnormal. This throws light upon the old European clairvoyance, which differs in a certain way from the clairvoyance of the East. To-day I want to go into these differences.

* * * *

What are these survivals of the old clairvoyant state of mankind? We can distinguish two kinds. One of them speaks for itself and is a true legacy of the past. I am referring to the dream and to dream experiences. The other vestiges of the past are in quite a different category. They are very much coloured and altered by present-day development, whereas the dream has not been changed by man, but by advancing evolution. The other remnants of the past are vision, premonition, and deuterostopy, or second sight.

Let us first take the dream. It is something left behind from the old picture-consciousness. But into that ancient consciousness the nature of the object really penetrated, whereas the dream to-day, although it still shows certain characteristics of the old picture-consciousness, has lost its real value, its reality. Let us take an example. Someone dreams that he sees a tree-frog, snatches at it and catches it. Then he wakes up and finds a corner of the bedcover in his hand. The dream symbolised the external event. Had the man met the dream with objective consciousness, he would have seen that he had the bedcover in his hand. But this is how the dream symbolises. It can become very dramatic. For example, a student dreams that on leaving the lecture-room he is jostled by another student. It comes to a duel. The seconds are chosen, they go to the agreed place, the distance is measured, the pistols are loaded, the first shot is fired. But in that moment the student wakes up, and knocks over the chair by his bedside. There we have the same thing. If the student concerned had seen the event with his objective consciousness, had he been awake, he would have seen that the chair had been knocked over, or possibly it would not have been knocked over. Now, however, the dream gives a more or less symbolic expression to what happened.

There are all kinds of such dreams; they may even have some element of reality. But in typical cases we have to do with an arbitrary connection between what is pictured and the outer event. The dream itself shows that one is dealing with a picture; but it does not show any direct connection between the picture and the inner qualities of the outer world. In direct consciousness a man would not have been obliged to touch salt with his tongue in order to recognise it, but a quite definite dream-picture would have arisen before him, and there would have been one for vinegar, another for sugar, and yet another for a dangerous being, and so on. With every being in nature there went a specific picture.

Something of this survives in dream-consciousness. But because present-day man has contracted his whole being into self-consciousness, because he has cut himself off from the outer world, differentiated himself from it, his dream-pictures no longer have any connection with it. Through having made the normal transition from dream-consciousness to self-consciousness, he has lost connection with the outer world.

It is different as regards the other three survivals—vision, premonition, and deuterostopy, or second sight. We have often described the course of human evolution somewhat as follows. The human being, as he is to-day, consists of four members: physical body, etheric body, astral body, and ego. The ego is the last member to develop, and it is through the attainment of the ego that man has become a self-conscious being; he has thereby wrested his being from the life in his lower members. When the ego was not so far developed as it is to-day, when man still lived in his astral body, when the astral body was the bearer of his consciousness, this consciousness was pre-eminently a dream-consciousness. It was the astral body which caused these pictures to come and go. Hence it is easy to understand that man was then more closely united with his lower members. Thus it is as if man had become free in his astral body, as if he had disengaged himself from it and had thereby acquired his present objective consciousness.

As man was once submerged in his astral body, so in still earlier times he was submerged in his etheric and physical bodies. Then he had still lower forms of consciousness. Thus we have three states of subconsciousness below the present objective consciousness.

Imagine that a man is swimming below the surface of the sea. It is then possible for him to see what is in the sea. He sees what happens at the bottom of the sea, what swims and moves there, and so on. What he encounters there is quite different from what confronts him if he rises to the surface and looks up at the star-strewn heavens. Similarly, man has been lifted out of that stage of consciousness in which he was aware of what was conveyed to him by astral, etheric and physical bodies; he has risen to self-consciousness. In certain abnormal cases, however, he can revert to the sea of subconsciousness. In dreams this happens involun-

tarily. What he has won by rising out of this sea he can take back again into it.

Imagine a man plunging back into this sea and able to compare all that he perceives below with what he has learnt above. That is what it is like to-day. The man takes with him what he has experienced here above. It is not as it is with a diver who takes nothing but his memory with him, who can make comparisons only with the help of his memory. Whoever plunges into the sea of subconsciousness after having become a modern man colours everything below with his experiences above. What has been experienced above is carried as a sheath into the subconscious, and man receives no clear picture of that world, but a picture clouded by the world above.

When a man plunges into his astral body, he transplants himself artificially into the sphere occupied by his consciousness when he himself still lived in his astral body. This is how what to-day we call visions come about. Were man to descend into his astral body without knowing anything of the modern world, he would really experience the inwardness of objects; they would appear to him in their true guise. To-day, however, they appear to him as a distorted reflection of what can be experienced only in the upper world of consciousness. Therein lies both the truth and the deceptiveness of visions. Anyone who descends into the world of vision may always be sure that the cause of what he sees lies in the soul-environment; but it is also certain that the vision confronting him will be distorted, that it will not show him things in their true guise, but will imitate what occurs in the world above. Hence a man's visions usually indicate what the men of his own day are experiencing. This can be checked in full detail, from decade to decade.

Let us suppose that a man plunged into that world at a time when there were no telegrams and no telephone. Then he would have seen no telegrams and no telephone in the world below, whereas in our own day the incidence of telegrams and telephones in visions becomes more and more frequent. That, too, is why the pious Catholic, who in his objective consciousness has so often seen the figure of the Madonna, takes this figure with him, and she appears to him down there too. It is not an expression of the reality, but something which the person has taken down with him, and in which he clothes the reality. In such a case he has carried down into the world below what he has experienced in the world above. Thus when a man returns in vision into the world from which he has emerged, he gives an abnormal colouring to what he experiences.

If he plunges back again into the etheric body, he experiences what we may call premonition. But this is even more dangerous, because his state of consciousness has gone still further back.

There man becomes involved in all the tangled threads of existence out of which he had raised himself into ego-consciousness; but in that case, too, he carries below all that he has acquired above. He is unable to see the threads in their true form.

Just think how little of what is all around man comes within his range. The thoughts which he makes (about cause and effect, for example) are limited to a small section of the world. But the whole world in its entire circumference hangs together, and there are other relationships involved. Man is, as it were, standing upon an island of existence, and the island is all he sees. But this island is related to the whole cosmos. In his etheric body man is much more closely connected with the cosmos than he is in his present consciousness. If he were able to receive in its purity what his ether body tells him, he would see future events, because down in his etheric body things converge. He would see that an event, which might not emerge into reality for perhaps ten years, was already there in germ. But man takes down with him his little intellect, his narrow little mind-soul. Hence what emerges as premonition is falsified; that is why so little reliance can usually be placed upon premonitions, just as generally there is no objective truth in visions which occur by way of nature.

When man plunges into his physical body, premonition can pass over into penetration of space. Whereas in premonition he sees other times, in deuteroscopy he can see what happens in the far distance, beyond the range of the physical eye. These pictures are like a Fata Morgana. Abnormal phenomena such as those reported by Swedenborg come into this category.¹ But here the deceptions are even greater, and nothing ought to be accepted which has not been tested by a trained, disciplined seer. Such conditions, which to-day are morbid, are survivals of an ancient clairvoyance which was once thoroughly healthy, was once something which placed the man in a relationship of complete understanding with his environment.

In the evolution of European peoples, in particular, we find everywhere a picture-consciousness of varying antiquity which saw the world in its inner, soul-spiritual nature. But the ego-consciousness of these peoples was still quite undeveloped. Have we anything left of what was seen and related by these people of olden times, who had not yet got the mature ego-consciousness, who had a transitional consciousness between the old picture-consciousness

¹ See also the following lectures by Dr. Steiner: *Swedenborg's Power of Vision* (Dornach, 12/9/15), printed in the Goetheanum English News-Sheet, 1939; *Die Geschichte des Spiritismus* (Berlin, 30/5/04), published in English as the first of two lectures in the booklet, *The History of Spiritism, Hypnotism and Somnambulism* (Anthroposophic Press, 1943); and *Menschliche und menschheitliche Entwicklungswahrheiten* (Cycle 46, Berlin, 1917; not translated).

and the objective consciousness? We have indeed a beautiful and precious survival of it in myths and sagas, in the whole range of mythology. The content of mythology is so often described to-day as folk-poetry. Clouds will be described as flocks of sheep, and thunder and lightning as something else. There is nothing more arbitrary than such interpretations. Sagas, myths and fairy tales, too, tell us about what we experienced in the subconscious. All sagas and myths were experienced, not composed—experienced not in our present-day consciousness, but in the ancient, clairvoyant state.

We can penetrate deeply into this consciousness and into the origin of myths and sagas if we turn to an important passage of the Scriptures. You will remember the significant verse in the Old Testament which reads, "And the Lord God formed man of the dust of the ground and breathed into his nostrils the breath of life; and man became a living soul" (Gen. II, 7). A certain formation of the breathing process is here associated with human evolution. We shall see later that this is a reference to the fact that man owes his present-day ego-consciousness, his capacity for living with and in his blood, to the peculiar structure of the breathing process which he has acquired in course of time and still has to-day. Only through having learnt to breathe as an upright being did man raise himself above the picture-consciousness. Animals still have picture-consciousness to-day, either directly or indirectly, because their lungs have not the upright position. It has quite rightly been observed that the dog is much more intelligent than the parrot, and yet it is only the parrot which has learnt to speak. Much depends on the direction in which an organ is placed. The parrot has a larynx in the vertical position, and that is why it learns to speak. It is because of the special configuration of his organs that man has been able to advance to his present objective consciousness.

If we have understood the words of the Bible just quoted we shall say: "Man has been so formed in conformity with the laws of the cosmos that his present breathing process has developed." Those who understood this process from its spiritual aspect, who knew that a spiritual element lives in all things, said to themselves: "The spiritual element of the air has to penetrate us in the way that this process makes possible; then the free ego-consciousness will evolve." When this process takes place in us in an irregular way, when the spirits of the air are unable to work into our blood in a way which corresponds to our present state of consciousness, then consciousness is forced back into an earlier stage. That is why the ancient European experienced every irregularity of the breathing process as a suppression of consciousness and an inner experience.

The physical expression of irregular breathing is the nightmare (*Alpdruck*). The word comes from *Alb* or *Elf*, so that it signifies the spiritual which enters into the human being even though it

cannot unfold itself fully. When the breathing process becomes irregular, when the ego has to descend into a lower kingdom, the host of lower spirits, which can make an appearance in the astral realm, have access to man. And though you may say this is a kind of illness, that is not the point; the important thing is what the conditions bring about. From our higher standpoint to-day, the condition must of course be called unhealthy.

Although to-day it is a reversion to an earlier condition, it was once a transitional state between the normal and the abnormal. Our present-day breathing has arisen from a breathing process which is found as a survival in the nightmare; the nightmare is the last vestige of it. At one time man needed less oxygen and more carbon dioxide. When that was the normal condition, when man was nearer the state of the plant, he had a different form of consciousness, he was plunged into the ancient clairvoyant consciousness. Then he emerged from this condition, and what was formerly healthy became unhealthy, and during the transition period, when he oscillated between the one form of consciousness and the other, the ancient European experienced all that we find in the elves and sprites, which came to his consciousness before he had acquired consciousness of the self. Thus we look back by way of nature into conditions which were once normal; the nightmare represents a survival of the picture-consciousness which created myths and sagas.

But the change in the breathing has involved many other changes. The seeing of external objects has come about. Picture-consciousness did not involve seeing external contours, seeing the outer surface of things. Then came the time when pictures gradually vanished and were replaced by the world of external objects. And once again there was an intermediate stage when man had already developed sight, but when his external sight might in abnormal circumstances withdraw and he might revert to a state of clairvoyance.

There is a popular expression in German, an expression of ancient origin, for looking at something without seeing it. It is *Spannung*, *Staunen*, *Spahnen*, and the last word has the same derivation as the German word *Gespens* (ghost), so that here you have the ghost before you, so to say; you have before you something which is seen by means of inner, astral forces. To-day that is abnormal. In the transitional period, whenever it occurred, the man was admonished to say to himself, "But I will see, I do not wish to be stared at, I wish to see." Thus what he saw in this way seemed to him to be something which he had to overcome. All the stories about blinding whatever stares at one, so that it can no longer stare, derive from this. In all these stories, from the story of the blinding of the giant Polyphemus right down to the wonderful story in which Dietrich of Berne overcomes the giant Grim, we have this stage of consciousness. The very strangeness of the

phenomenon, however, could have an attraction for the soul. Hence there were beings, beings who belonged to the inwardness of things, who could have a seductive influence on men, who could lead them astray.

The key word in German for this enticement is *Lur* or *Lore*. And wherever you meet this word, you have the ghost in its "alluring" form. If men were specially liable to meet it at a special place, they said that this place was its home. The word *Lei* is connected with this, hence the Lorelei rocks. It is there that the alluring form is to be found which withdraws into the *Lei*, as into its native country. We can find this word *Lei* in various associations with the word *Lure*. Thus we have the subconscious experience of seeing, with its *Lore* or *Lure*, which emerges as the specific seeing of external objects develops. The *Alpe*, or elves, have to do with the fact that man retains his ego-consciousness within him.

We have yet another survival, still to be found in certain Slav regions. It is the saga of the Midday Woman.¹ When men go out into the fields, and, instead of returning home at midday, remain there, the Midday Woman appears to them, clothed in white. She questions them until the clock strikes. If they are able to answer all the time, she says, "Good, you have redeemed me."

Here once again an ancient clairvoyant experience is expressed. Just as we breathe in with the air the spirit of the ego, so we have gathered together our entire being, our entire microcosm, out of the macrocosm. Everything within us has come from without. Our inner intelligence is a product of the outer intelligence. There is a transitional period between the time when men saw the spiritual beings who directed the structure of the world, the beings who directed the formation of the flowers and of the crystals, and the time when the outer intelligence was formed. This intelligence has taken possession of man; he has become conscious of it. The midday sun, the midday demon, obliterates the ego-consciousness through a partial, undeveloped sunstroke. Then what has entered into man to make him intelligent, the external cause of his intelligence, appears before the man, and in such a way that he has to exercise his intelligence. It is through his having to make a mental effort that the phenomenon occurs. The man is, so to say, confronted objectively by what the cosmos has made of him. He must overcome it. If he can exercise his intelligence so as to be able to answer the Midday Woman until the clock strikes, he can unite himself again with his ego.

We meet the best expression of this in ancient Greece and sculpturally in ancient Egypt, in the great questioner, the Sphinx.

¹ See the fourth lecture in the cycle, *The Inner Nature of Man between Death and Rebirth* (Vienna, 1914), published by Anthroposophical Publishing Company, 1928; out of print.

The Sphinx is nothing but the highest expression of the Midday Woman. It asks the ultimate question, the question to which the answer is "man." Whoever is able to solve the riddle redeems the Sphinx. It falls into the abyss—that is, it unites with human nature.

Man has acquired his present clear day-consciousness, which has brought with it self-consciousness, as a victory over the ancient picture-consciousness. In earlier times, although he was unable to see into himself, did not find a self within him, yet when he looked outside himself he saw spiritual beings everywhere—in the waves, in the air, in the trees—all was indwelt by spiritual beings. How could he himself not be so indwelt also? When he felt, "With the air I breathe in, I receive the actual imprint of the ego," how could he do otherwise than see in the air the embodiment of the god to whom he owed his objective consciousness? When he breathed in the air, he knew, "The air moves my ego." When the wind blustered without in the stormy winter nights he knew that Wotan was roaming about, the same Wotan who was breathed in by him. We could go through all the myths and sagas in this way. We should doubtless find that literary composition has brought about modifications, but they can all be traced back to the old clairvoyant consciousness.

European clairvoyance, however, differs essentially from that of the East; for every people has a special mission, a special task to fulfil in the course of evolution. Whereas in the time when the Oriental was going through the transition from the old clairvoyance to the formation of the ego, he possessed only a mere rudiment of the ego, so that it very easily surrendered itself to the higher beings, the consciousness of personality developed early in European life. It was a particular characteristic of the European peoples that during the transition period the ego made tremendous inroads. The human being was able to see into the inwardness of things, but he asserted his ego very strongly, felt himself from the outset as a strong opponent of the beings who were trying to entangle him in the threads of the spiritual world around him. Therefore the beings who are man's helpers are those who work towards the acquisition of self-consciousness, towards the liberation of the ego.

The victory over the astral Spirits, which is the aim of those Spirits who bestow personal self-consciousness, plays a great part in Germanic literature, in European literature. The Alp-spirit, who ensnares man, is present everywhere for European consciousness in the Midgard Snake, or in the forms of the giants. Everywhere we see how the gods ally themselves with men in the formation of personal self-consciousness. We see how the god Wotan, who lives in the breathing, becomes man's ally in his fight against all the lower spirits; he stands beside man in his struggle to overcome the lower consciousness. It is Donar or Thor, with his hammer, who

conquers the giants and the Midgard Snake; he it is who expresses man's emergence into reality.

This conquest over the astral powers, who prevent men from becoming free, played a great part in preparing the way for Christianity. There was something more impersonal in the Oriental, whereas the warm-hearted European had to experience something unknown to less advanced Eastern peoples. In Europe the urge to emerge from subconsciousness was the dominant motive. Therefore the European felt intensely: "I with my ego have emerged from the spiritual world into the physical-sensible world. In primeval times my soul was in the spiritual world, the world of light. What I have acquired here has made me blind to the old astral world." This found its strongest expression where the victory over the astral world was most strongly felt. The ancient European consciousness felt Baldur to be the leader of souls in so far as they belong to the land of their birth, to the astral world of light. The leader of the sense-world is Hodur, who slays Baldur.¹

Thus tragically the ancient Europeans experienced the fading out of the clairvoyant soul, the provisional death of the soul. But they experienced it as a transition; they felt that something new had to follow. Hence the "Twilight of the Gods," the downfall of the spiritual world. And because in ancient times personal consciousness was strongly marked in the European peoples, the appearance of the personal God, Christ Jesus, could be most deeply understood by the Europeans. The germ for the reception of the personal God was laid down long beforehand.

We have seen how in Europe the present-day consciousness has developed out of the earlier one. It was only a small section of the spiritual world that people could see in this way. But the initiates had their consciousness in still higher worlds. We shall show how the knowledge of the initiates was raised above the clairvoyant consciousness of the masses, what impression the appearance of the Christ made on the Mysteries, and how the Mysteries have evolved right up to the present day. What men saw at lower levels in the past they will see in the future at a higher level; for they will see into the spiritual world in full consciousness.

Man has indeed passed through this process. While still leading a subconscious form of existence, he descended in order to acquire self-consciousness. And with his self-consciousness he will rise again. His earlier clairvoyance was not his own, but a clairvoyance which other beings had instilled into him. What he will acquire for himself will be a free self-conscious possession, best described

by a saying of Christ-Jesus. On the occasion (John VIII, 32) when the Christ was emphasising the relationship between truth and freedom, he spoke of the far-distant future in these terms: "And ye shall know the truth, and the truth shall make you free."

Translated by Dorothy Lenn.

Note: This lecture is the second of three public lectures (Berlin, April-May, 1906), which in 1955 were published in book form, in German, by the Rudolf Steiner Nachlassverwaltung, Dornach, under the title of *Isis und Madonna: Alteuropäisches Hellsehen; die Europäischen Mysterien und ihre Eingeweihten*. A typescript translation of the first lecture is in the Library at Rudolf Steiner House, London; a translation of the third appeared in the quarterly, *Anthroposophy*, vol. iv, no. 3, 1929.

THE GULL-SPIRIT TO THE GULLS

The Spirit of the sea-gull sings
Where the green wave meets the shore:
'Come, my body and my wings
And find your element once more.

'Sometimes through the beating air
Take your long, resistless flight,
Gliding with your wings outspread,
Like the sea-foam gleaming white.

'Sometimes on the breaking waves
Settle, when the tide is low:
Lifted up and lifted down
While the waters onward go.

'Sometimes on a steadfast rock
Huddle for a little; then,
Crying, crying to the wind,
Wheel through empty air again.'

¹ See the lectures, *The Balder Myth and the Good Friday Mystery* (Dornach, 2-3/4/15); published in *Festivals of the Seasons* (Anthroposophical Publishing Company, 1928; out of print).

MITHRAS AND CHRISTIANITY

A. C. Harwood

WHEN a temple of Mithras was recently discovered in London, people queued in tens of thousands to see it, money flowed for its preservation, and (in view of the neglect of City Churches) the saying of Trinculo was aptly quoted that in England they "will not give a doit to relieve a lame beggar but they will lay out ten to see a dead Indian." Yet the discovery contributed nothing new to our knowledge of the cult of Mithras, which was virtually the official religion of the Roman Empire before the conversion of Constantine. Wherever the legions went a temple of Mithras was bound to arise, even as far as the Wall, where nearly every station possessed one.

Moreover, the ritual and religion of Mithras have long been made good use of by those who reduce Christianity to one of many comparative religions. For externally the two religions have astonishing points of similarity. Mithras was born in a cave on December 25th, and the first to salute his birth were shepherds. His sacred day was Sunday in a seven-day rhythm of planetary days. The participants in his worship took bread and wine (the bread even marked with a cross), and the high moment of the service was marked by the ringing of a bell.

It was perhaps because of this very similarity that in the denunciation of pagan rites and the destruction of pagan temples, in which the Christians indulged as soon as they were powerful enough to do so, they were particularly violent against the religion of Mithras. The destruction was so complete that Franz Cumont, the great authority on Mithraism, says that, with regard to our knowledge of Mithraism, "our predicament is somewhat similar to that in which we should find ourselves if we were called upon to write the history of the Christianity of the Middle Ages with no other sources than the Hebrew Bible and the sculptured debris of Roman and Gothic portals."

For Mithras had become for the Roman world the God of the "Unconquered Sun," and he was a dangerous enemy to the God who had called himself the Light of the World. That is to say he was a dangerous enemy, unless he was the *same* God, as Professor Toynbee claimed in a recent article, where he stated that when Constantine saw the Sun with the Cross upon it, he realised that Christ was none other than the Unconquered Sun God. In so far as the unconquered Sun God was for the contemporary world none other than Mithras, this is to make—with a different intention—the same mistake as the writers on comparative religion do. Christ is not Mithras, as the Christians of the time well knew. Christianity is not another Sun Religion. It is *the* Sun Religion.

* * * *

Mithraism was a very old religion by the time it reached the Romans. It was old when Cyrus conquered Babylon and released the Jews from captivity. The conquering Persians left Mithraism all over the Near East, and it became the religion of many Eastern kings after the collapse of Persian power. When the Romans conquered Mithridates of Pontus, the captive slaves brought the religion to their masters. In this respect also the parallel with Christianity holds.

To encounter Mithraism at its roots, therefore, we have to go back to the old Persian picture,* the Zend Avesta, in which Zarathustra receives from the Light God, Ahura Mazda (Ormuzd), the religion of the Battle between Light and Darkness. In Rudolf Steiner's view, the epoch of Zarathustra is much older than the time commonly given in history. For he applies here a principle unknown to exoteric historians, by which the name of a stream of initiation is assumed again and again by its successive leaders or representatives. We should not ask—When did Arthur, or When did Zarathustra live?—without first asking, which Arthur and which Zarathustra? The Zarathustra known to history is the last in the succession. The Zend Avesta reflects the teaching of the first great Zarathustra who established the civilisation of a very ancient Persia.

In the Avesta there is something of a contradiction in the place occupied by Mithras. He is not one of the six great Amshaspands who are the immediate helpers of Ormuzd; he would even appear to be a relatively minor God. On the other hand, he is several times coupled with Ormuzd, who is said to have created him to watch over all this moving world. He is also given the epithet, otherwise reserved for Ormuzd, of the "Shining One." He came to be the special protector of Kings, to whom he gave a kingly halo (the divinity which hedges a king) and who always invoked him before battle. By Roman times Mithras had quite supplanted his Master and Creator Ormuzd. How did this come about?

The ordinary explanation is to treat this reversal as one of the many cases where a minor figure in mythology usurps the place of a major. Launcelot became more important than Arthur, the fame of Roland eclipsed the prowess of Charlemagne, Prometheus outdid Zeus, and (if we are to believe Jung) Job went one better than Jehovah. Rudolf Steiner's explanation is different because it takes account of elements unknown to the historian of to-day; they will revolutionise the study of history when they are at last appreciated. His explanation is as follows.

Broadly speaking, the whole evolution of consciousness is from outer to inner. A modern man feels that his thought is within him, even inside his head or brain, while the object about which he thinks is outside. In more ancient times, however—and traces of this

* As most religious teaching was handed down orally long before it was written, the word *picture* would seem appropriate for this oral period, in distinction to the written period of *scripture*.

lasted as late as the age of Scholasticism—man experienced his thought as really being *in* the object about which he was thinking. It might even be said that he felt *himself* in the object. There was not the distinction between subjective and objective which is so marked at the present stage of consciousness. Even when a man thought about his own being—say his own physical body—his thought did not stay there. It penetrated to the spiritual powers and processes which create and sustain the body. In a sense, therefore, all ancient consciousness could be described as outer. But in every epoch of culture it was possible to penetrate into the spiritual reality of the world by taking either an inner or an outer path of knowledge. The two paths can also be called Mysteries of the Heights and Mysteries of the Depths.

In the epoch of the great River Civilisations the Egyptians took the inner path which led to the world of the dead, while the Chaldaeans took the outer, which brought them to the knowledge of the stars. The previous civilisation, the Ancient Persian, was *intrinsically* an outward-going one, just as the Indian which preceded possessed an inward character. That is why the Devas, who were good gods in India, became wicked for the Persians, while the Asuras, wicked to the Indians, gave their name—Ahura—to the great Persian God of Light. Nevertheless, there was an inward path even for the Persians. And as the time of the incarnation of the ego drew near, it was natural for the Persians who still maintained the old Zoroastrian religion to forsake the outer path in favour of the inner. When a Persian initiate took the outer path, he came to the spiritual being of the Sun in the form of Ahura Mazdao. When he took the inner path, he also came to a Sun Being. But this Being was not Ormuzd, but Mithras.

Some indication of the nature of this inner path is given by Steiner in lectures where he is stressing the importance for our Michael age of recovering the sense for the reality of time. By way of illustration he gives two examples of what may be called Michael thinking in the pre-Christian age. The first is taken from the world of the Druids; the second, from Mithraism.

The cromlechs which the Druids erected or used were in reality spiritual observatories. By shutting out the physical light of the sun, the Druids were able to observe the activity of spiritual beings in the etheric light which lies behind the physical. From such observations, and not from an abstract calendar, they regulated the activity of the year, ploughing, sowing, reaping, the mating of animals, and so forth.

The Mithras initiate performed a similar task, not through observation in the sunlight, but through an awareness of spiritual processes in the blood. For blood is no more a uniform physical essence than sunlight. It is subject to different spiritual influences in different seasons of the year. The Mithraic initiate participated in the living experience of time through his consciousness of the

blood. The Zodiac and the movement of the sun through the twelve signs were experienced on this inward path no less than by astronomical methods. Its emblems are always found displayed in Mithraic temples. This is not to imply that Mithras was not a Sun Being. The Sun works in the blood of man no less than in the outer atmosphere. It is a question of the means of approach.

* * * *

What manner of Sun-Being was Mithras? We must be careful, in discussing Spiritual Beings, of the simple identification which belongs to physical life. We are in a world where Thoughts and Memories are Beings; where a higher Being will work through a lower one so intimately that he may be said to become that Being; where a lower Being sacrifices himself in order to become the vessel of a higher. Nevertheless, Rudolf Steiner has so plainly indicated the essential nature of Mithras that, within the above limitations, we may say that we know who Mithras is.

The extant legends entirely bear out the picture of Mithras which Steiner gives. Mithraism did not regard Mithras as "God" in the way that Christians regard Christ. Many Mithraic temples have revealed statues of a higher eternal Being, Kronos or Aeon or Zerana Akarana, who stood behind the Persian duality of Ormuzd and Ahriman and represents its ultimate unity. Such statues are heavily symbolic and often represent a lion-headed man, with four wings growing from his shoulders, a key in one hand and a sceptre in the other. A snake winds round his body, which bears a thunder-bolt on the breast and is decorated with the signs of the Zodiac, while a collection of divine attributes lies at his feet—hammer and tongs, the staff of Mercury, the cock and the pineapple. In the mythology of Mithraism this eternal Being begot a divine pair, Heaven and Earth, from whom all the gods with their various powers and attributes descended. Hence he is represented as bearing the tokens of them all.

There came, however, a revolt of evil beings—the Devas—against the power of the good gods headed by Ormuzd, and Mithras was born from the rock as the champion of the Light God. Foremost among his exploits was the overcoming of the sun, which he made his friend, and of the bull, the first living creature made by Ormuzd. He conquered the bull by mounting it and riding it till it was exhausted, when he dragged it to his cave. But the bull escaped and the sun sent a raven to bid Mithras recapture it. This time he again caught it with the help of the dog, and then seizing it by the nostrils plunged a dagger into its side. From its body sprang all useful plants, the vine from the blood and the wheat from the spinal cord. A scorpion, an ant, and a serpent endeavoured to devour its genitals, but the Moon gathered and purified its seed, from which came all useful animals. The soul of the bull, accom-

panied by the dog, ascended into celestial spheres, where it became Sylvanus, the guardian of flocks and herds.

There is almost unending meaning behind this fragmentary legend. Mithras is connected with the Bull-nature in man, and with the division of humanity which took place when the Sun left the earth and four different kinds of Mystery centre were established, in which spiritual vision was directed to Bull, Eagle, Lion and Man in their macrocosmic forms—a division which later manifests in the sphinx of Egypt, and even lies behind the revelations of the four Gospels. But Rudolf Steiner gives special significance to the picture of Mithras overcoming the bull and releasing from it the good powers which enable man to overcome his fallen human nature, and ultimately to bring redemption to fallen nature as well. For he says that this is a true vision of that great event in Lemuria when the backward, earth-bound angels had impregnated man's astral body with the result of the War in Heaven, and had brought him consciousness and self-consciousness before he was ripe to receive them. But those angels who had made their home on the sun endowed man with the germ of the spiritual ego by which he overcomes the gift of Lucifer, a victory already potentially expressed in man's upright carriage. The leader of these Sun Angels was none other than the Archangel Michael. Mithras, then, is an aspect of Michael, even if he is not Michael himself. And Michael is the servant and countenance of Christ, whose presence in the sun the Ancient Persian contemplated in his vision of the Light God Ormuzd.

This is why Mithras is always described as having the character of a mediator. One of the common epithets for him is μεσότης, "the middle one." Plutarch describes him as occupying the middle zone, the light-filled air, between the domains of Ormuzd and Ahriman, and adds that he is the mediator between the unknowable God and the earth. Rudolf Steiner says that the true Mithras was seen in that middle consciousness which lies between sleeping and waking, and he describes the Mithras cult as "the last powerful remembrance of the Christ Who had not yet reached the earth but was descending."

* * * *

Mithraism is also of great interest because it preserved to the end some memory of the seven great degrees of initiation which always belonged to the pagan mysteries. Christian sources, including St. Jerome, tell us that the names of these degrees in the Mithraic mysteries were Raven, Occultist, Soldier, Lion, Persian, Sun-runner, and Father. A relief from a temple in Bosnia depicts two Mithraic participants reclining with a basket of sacred wafers, marked with crosses, in front of them, attended on one side by a figure with a raven's mask and by a second with a Persian dress—he is offering the wine—and on the other by a soldier and by a figure wearing the mask of a lion.

It may be that these figures are symbolic. It may be that the rites had fallen into the decadence of pantomime which justified the fourth-century Christian mockery that the Mithraists "flap their wings like birds and roar like lions."* Perhaps, as in some modern rites, there was every degree of understanding. At any rate, we gain some idea of the intention of the initiation from the statement of the same Christian author that after initiation the initiate declared: "I have transcended the boundaries of death; I have trod the threshold of Proserpine; in the middle of the night I have seen the sun shining with a pure light; I have approached the gods below and the gods above, and I have worshipped them face to face."

Rudolf Steiner confirms these seven stages of Mithraic initiation. He says of them that they embodied the most graphic picture of pre-Christian initiation and lived on into the Christian era. He has even pointed out that an understanding of these stages is essential to a true interpretation of some passages in the Gospels. At the stage called the "Persian," for instance, the initiate had become so advanced that he entered into the sphere of the Archangel of his people. Indeed, he became the "eye" through which the Archangel could perceive the activity and development of the people whom he led. The term "Persian" was current only because of the historical origin of Mithraism. It could equally be the name of any other people. Only through such knowledge can we understand the strange conversation between Christ and Nathaniel, recorded in the Gospel of St. John after the Baptism. When Nathaniel is brought to him, Christ says, "Behold an Israelite in whom there is no guile." Nathaniel asks Christ how he knew he was an "Israelite." Christ answers, "I saw thee under the fig-tree," using a well-known picture of initiation, and meaning that he had seen him with the eye of the seer. Thus a Mithraic degree of initiation meets us at the very beginning of Christ's activity.

In fact, however, the mission of Christ was to overcome the old forms of initiation. Mithraism was still bound up with the body—it is significant that it was for men only. Christianity spoke to the ego which transcends all differences of body, including that of sex. The Mithraists were still seeking the Light of the World in the sphere of the sun, when that Light had already descended to the earth. This cosmic secret was known to the earliest Christians and may, as Toynbee says, have been realised in some measure by Constantine. But the tragedy of Christianity was that it gradually lost the initiation-knowledge of the Light of the World, while the Pagans, such as the Mithraists, continued to practise rites which had lost their inner content. This tragedy reaches its dramatic climax in the story of Julian the Apostate, who endeavoured to undo the work of Constantine and restore a noble paganism to the Roman Empire.

* Pseudo-Augustine: *Quaest. vet. et novi Test.*

Julian had been initiated in the Mithraic mysteries by Maximus of Ephesus, and on his accession to the empire used Maximus to restore the Mithraic worship in the temples. It was the last gallant effort of the pagan religion to find the Light of the World in the sun-sphere, and the moment of its failure is a critical date in the history of the world, a date which bears an intimate relation to the life of Christ.

Jesus Christ was not born—as we might have imagined—at the central point of the fourth, or middle, post-Atlantean epoch. That central year would have been the year 333, and Steiner has said much, which cannot be repeated here, about this year as the fulcrum between the actual date of the Birth and the year 666, whose number is well known in the Book of Revelation. Had Jesus been born in 333 the Baptism in Jordan, when the Christ Being descended to the earth, would have taken place thirty years later, in 363. In that year, three hundred years after the Light of World descended to the Earth, the last pagan initiate endeavoured to find that Light in the sphere of the Sun. For in that year Julian, for reasons which are obscure to historians, invaded Persia. In 362 he was already at Antioch, making his preparations. On December 25th he completed his famous *Hymn to King Sun*, describing and invoking the triple Sun Being. It is the Sun, he says, which showers souls down upon the earth, and its Light bears the same relation to things visible as Truth does to things intelligible. For Julian knew that Mithras was not the ultimate Sun Being, and, true to the tradition of the Roman Emperors taking the Mysteries by storm, he was invading Persia in the hope of finding the ultimate Light of the World. On June 26th, then approximately if not exactly Mid-summer day, the day of John Baptist, he was slain in battle—according to tradition, which Steiner confirms, by a Christian soldier in the ranks of his own army.

It was a symbolic and fateful act. Christianity killed the old Sun worship and in doing so lost the knowledge of Christ as the Light of the World, and came to regard Him merely as the light of the human soul. But the human soul longs to know again the Light of the World. In his *Ode on the Intimations of Immortality*, Wordsworth makes the earth conspire to render the incarnated soul oblivious of heavenly things:

And, even with something of a mother's mind,
And no unworthy aim,
The homely nurse does all she can
To make her foster-child, her inmate Man,
Forget the glories he hath known,
And that imperial palace whence he came.

But it would seem that, in the longer view, the earth yields up the treasures of the past for the opposite reason—to remind man of his lost spiritual heritage. In the Renaissance, statues and works

of art seemed to rise spontaneously from the ground of Italy, calling upon man to renew his knowledge of the age from which they came. In our times older civilisations have risen and speak with a similar voice. Perhaps some mutters of that voice were dimly heard by the patient crowds in London who waited in their long line to enter a temple which had been one of the last homes of the old pagan Sun Mystery.

FAUST AND GRETCHEN

IS it joy or is it pain,
Being one yet being twain?
Where, alas! shall I find rest
Save, beloved, on thy breast?
Yet ere I may call thee mine,
Ere these threads fast intertwine,
Ordeals must I undergo,
Hellish dragons overthrow,
Climb great mountains, swim vast seas,
Spend long years upon my knees,
Universes overturn,
Occult secrets must I learn . . .
Yet at last shall be achieved
All that I have well believed.
When this selfhood is outgrown,
I shall claim thee for my own.
All my weary journeyings done
Be with thee for ever one.
In some heaven beyond, afar,
Form with thee a single star.

ARNOLD FREEMAN.

PHYSICAL AND ETHERIC ENERGIES

Ehrenfried E. Pfeiffer, M.D.Hon.

PHYSICAL energies concern the interaction between mechanical energy, warmth, electricity and magnetism. These are transmutable into one another and are accessible to mathematical reasoning. The laws of physics comprise the inter-relations of these energies. The discovery, exact description and application of them have led to the tremendous development of modern technology and industry. The pattern of economic, social and political life and structure has changed more rapidly during the last 150 years than in any previous period of human history.

It is inherent in the nature of these laws and energies that they are valid over the entire earth; they are truly cosmopolitan and are not tied to any nation, folk, tribe or social structure, whether they are used or misused for any purpose. In themselves they are objective.

In so far as a living organism—plant, animal, or human body—participates through growth, maintenance or breakdown in the functioning controlled by changes and reactions of matter, these energies in the living realm reveal also the laws of nature.

In addition, there is gravity as another physical energy. Gravity stands by itself and is not convertible directly into warmth, electricity or magnetism; it is static. It can cause movement—free fall or the flow of water, for instance—but movement in one direction only: towards the centre of the earth. A direct anti-gravitational field has not yet been discovered in the mechanical realm.

Although gravity shows certain degrees of intensity (the gravitational pull is different at different locations of the earth), there is no means of increasing it or of screening it off. It can be overcome in a fashion by way of thermal or mechanical energy, but it is not changed by this. Gravity is a property of matter.

There is another energy, commonly described in terms of warmth, electrical charge or otherwise—the energy of light. The description of light in the terminology of the other physical energies is obviously incomplete. Although these energies form part of light, they do not make up everything which is conveyed by light. Light is more than the sum total of all other physical energies. What we observe as “light” is only the effect which it brings about when it comes into contact with matter; colour, for instance, arises in this way. Light itself, as a pure entity, is invisible; it is an energy or agency independent of this earth. It is of cosmic origin, and would exist if there were no earth.

As far as a body consists of matter, it is subject to gravity. The role of light is more than the physical appearance of it in or about matter. If we had a world consisting only of inanimate

mineral matter, we could have warmth, electricity, magnetism, gravity, but no light, no life, no growth. Light creates life and maintains life. The change of dead matter into living matter is due to the fact that light enters the material realm and is partially transformed into living matter or the living process; this can be seen in the plant cell, where light is absorbed and transformed into chemical and other energy by the interaction of the chlorophyll and related substances in the process commonly called photosynthesis. This living process can be neither described nor explained by merely putting together physical energy reactions and matter, although it is true that these accompany and modify the life-process.

The energies which maintain—in fact, cause—life, we call, following the concept of Rudolf Steiner, “etheric energies.” We will try to explain what this term means.

In photosynthesis, under the influence of light—or, more correctly, under the influence of the rhythmical change between light and darkness—physical matter is rearranged and combined into a most complicated system of organic substances which form the living cell. Any chemical reaction either releases or fixes warmth; no chemical formula is complete unless the change of caloric energy is included. In photosynthesis, if we take the concept more widely than is usually done, we have to add to the caloric change that particular energy differential which is brought about by light.*

We must therefore recognise that the complex living organic system fixes or releases both warmth energy and light energy. Likewise water is split off or enters the molecule. Without the versatile role of water, no life would be possible. Water is not only a carrier (in solutions), but becomes an integral part of living matter. It is seemingly inert outside, but activated inside the cell. Its hydrogen and oxygen components are reactivated or liberated, making them useful for the synthesis of organic matter. The term “organic” is used here in a twofold sense: (a) strictly according to the chemist's definition; and (b) as part of the living process which leads to organic—i.e. organised—matter.

The newer concept of photosynthesis speaks of a light process: namely, the breakdown of water and the absorption of the

* Theoretically, as one writes a chemical-caloric formula, $R_1 + R_2 = R_3 + R_4$, plus or minus x calories, one should write a photosynthesis formula plus light, and should follow the “light” in the continuation of the process into the biochemistry of the living system—for example, the enzymatic reactions based on enzymes with phosphorus or magnesium in the molecule as bearers of “light” action—while the minus light-reaction—that is, the darkness phase of the carbon dioxide-malic acid-sugar-carbo-hydrate synthesis—is the truly caloric or warmth phase. The continuation of the “light” energy into the system is not as logically and consequently followed up at present as is the caloric change, the intake or release of energy. From the point of view of atomic physics, we need to introduce the fact that the electron has mass, though a negative charge, while the photon has neither mass nor charge. It is the photon energy, however, which is basic to photosynthesis.

hydrogen ion in *statu nascendi* by a suitable "acceptor," in which enzyme systems play an important role. The second process in the darkness process, comprising the breakdown of carbon dioxide, the carboxylation and the building up of malic acid under the influence of other enzyme systems or biocatalysts—for example, PNtranshydrogenase. This is the starting-point of the synthesis of sugars and of carbohydrates in general, the building up of amino acids, protein and peptide chains, conversions into fats, etc., etc.—in short, the entire carbon-compound cycle.

Certain mineral elements play an important role here, as do iron, magnesium and phosphates. No light-synthesis would be possible were it not for the catalytic influence of magnesium and phosphorus, the bearers of "light"-energy in photosynthesis. The warmth-energy is transformed and made available in the sulphur-directed compounds, in the accumulation of sugars and carbohydrates. It is here that the caloric value is of importance. In order to synthesize one molecule of glucose, 686,000 calories are required. The oxidation of glucose in the animal body releases this energy again; fifty to seventy per cent. of it is used and fixed again in the pursuant chemical processes.

One acre of maize, giving a yield of 100 bushels of seed, will produce 200 lbs. of sugar a day. One quarter of this sugar is oxidised in the course of respiration. In writing out chemical formulæ, the energy factor is usually omitted. To what extent this energy factor enters in may be illustrated by the following example. On one acre of maize about 10,000 plants will grow in 100 days. The total energy available from sunlight (warmth) is 2,043,000,000 calories. Of this total, 33,000,000 calories are used in photosynthesis; 910,000,000 calories are used in transpiration and the transportation of water. In the case of maize, 408,000 gallons of water per acre were consumed during the growing period, using up 45 per cent. of the total available sun-energy. In general, in order to produce one lb. of plant matter a plant consumes about 500 lbs. (wheat), 600 lbs. (maize), 800 lbs. (alfalfa), of water. Respiration releases 8,000,000 calories. At maturity the seed contains one-fourth of the absorbed energy.*

The light equation has not yet been formulated, but from known facts it can be inferred that the entity which is accepted and transferred by enzymes, and activated by magnesium and phosphorus compounds, supports and maintains the continuous change or metamorphosis of the living matter. It appears that plants assimilate chiefly in the morning and late afternoon hours, and rest at noon and during the middle of the night. They seem to be more photosensitive to the red pole of the spectrum, transforming energies into

chemical energy. The morning and late afternoon light includes more red rays, while noon sunlight includes more blue rays.

The growth process, however, and especially the elongation of stem and root, takes place during the "dark" phase. My own experiments have shown that the root tip grows more in the early morning hours (with a second maximum in the late afternoon) than at any other time of the day. It is a rhythmical process, like everything else in the plant. In continuous light a vegetative growth, with no flowering, has been observed. Blue-violet has more of a retarding effect than the red. Chlorophyll is formed in the red light. It has, however, been shown that certain phases of photosynthesis are effected simply by LIGHT, independently of the wave-length, while the growth-pattern reveals a relationship to the spectral wave-length. This means that in light there is more than just the caloric energy. Wave-length expresses the physical energy. The question then arises: What is this "surplus" in LIGHT, invisible and not accessible to the concept of physical energies?

Morphology in the maintenance of species as well as in chemical reactions, follows a certain pattern. The pattern is preconceived and directional, already present and active when the first anlagen begins to show up. It co-ordinates all interactions with the terminal aim of producing just this or that organ, leaf, blossom, sugar, amino-acid, protein and peptide chain, etc., and makes the corresponding enzyme systems appear and disappear. We are dealing with a functional, directional system, resulting in the complete organism. The right reaction at the right place at the proper time: this is growth and health. The same reaction at the wrong place and times: toxins and disease. Cancer, viewed biologically, is a growth process at the wrong time and place. At the right time and place, and in the proper sequence, the same process would be in tune with normal embryonic development. Embryonic growth—forces in the wrong position cause malignancy.

It has been shown that light influences the absorption, diffusion and passing on of minerals in the cells, according to a rather specific pattern and relationship. Tomatoes respond better to nitrogen fertilisation in a sunny than in a dull, cold season. The same tomatoes responded better to potash fertilisation in a cold season than in sunny weather (E. J. Russell, Rothamsted). Bromine was absorbed and transported by nitella cells four times as fast in light as in darkness (Hoogland, UCAL). Doubling the light intensity increased the bromine absorption by thirty per cent.

The absorption and transformation of physical energy is only one part of the entire life-process. The proper arrangement of matter, and the form-pattern according to the predetermined principle inherited in the plant, make up the other part of the life-process. It is this other part which we give the name of etheric, formative force. It is the sum total of all the forces which deter-

* Figures from *Dependence of Plants on Radiant Energy*, by Earl S. Johnston. (Smithsonian Series, Vol. XI, Part VI.)

mine the pattern—the pattern of function and form as well as the pattern of chemical synthesis.

These etheric forces are not of a substantial nature, measurable in terms of calories, electrons, etc. They are invisible, but without them there would be no growth, no form, no organisation, no arrangement or rearrangement of living matter. They have also been described by others, rather abstractly, as the determining or organising factor. Matter (substance) acts as the carrier of them, but it does not produce them. The facts point to an independent agency in nature. These etheric forces have nothing in common with the hypothetical “ether” of physics.

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For the philosophical understanding of these processes it is well to realise that a breakdown process is at the starting-point of life. This may be the breakdown of water and carbon dioxide in photosynthesis; of sugars and carbohydrates in order to deliver caloric energy to the life-process; the breakdown of more complicated peptide chains in seed germination or in order to produce enzymes. According to its proper position in the living system, matter is differentiated and co-ordinated. The pattern of form, the model or template—many names have been given to the phenomenon in order to get round the acceptance and acknowledgment of an independent etheric energy—is inherited over generations. Chromosomes and genes are carriers of the fundamental pattern, but not the origin of it. The original pattern is an inherent, immaterial activity; the determining force or energy of which we speak here as “etheric.” If this force is related to a definite physical body, one can speak of an etheric body. Just as there are magnetic, electric, gravitational forces and fields, so there is this etheric force-field or realm. The sooner science acknowledges this etheric energy as an independent form of energy, superimposed on matter in the living realm, the sooner will science begin to understand the creative force which acts out of cosmic order and wisdom in order to create and maintain life.

The fact that matter has to be broken down in order to give way to a new development is self-evident. Goethe expressed this principle in the beautiful words: “Nature has invented death in order to have much life.” Once the existence of the etheric is recognised, it will be so much easier to integrate the thousands of details which are produced by scientific research, overwhelming in quantity, often incoherent and contradictory, puzzling at times. The horizon of our human concepts needs to be widened in order to understand life.

This etheric formative force and field is part of natural law. It is accessible to logical reasoning and description; to mathematical—and especially geometric—exploration. In fact, projective geometry provides an excellent means of describing it. As any natural law

is an expression of the original creative thought, so is the behaviour of the etheric formative force an expression of this same creative thought and intelligence. It is an expression of intelligent action, reason, purpose, determination, metamorphosis, and, above all, of the functional, harmonious relationship between all the entities of nature and the cosmos. It is the primary force of an order higher than that of physical energies. The latter are executive; the first is creative.

As we have clearly seen, light is a creative force; without it there would be no life. Animals and human beings need the transmuted energy which is fixed in the green plant. The transfer takes place by way of nutrition. To look upon food just as an accumulation of matter, of sugars, starches, proteins, fats, is a meagre concept. There is more in food than just matter. The energies which are transmitted, whether they be caloric energies or pure light or creative energy, are as important and as integral a part of the food as is its substantial value.

Foods for the plant are water and air (carbon dioxide, nitrogen, oxygen, etc.) with the minerals acting as directional or biocatalytical factors. Potash, for example, influences the building-up of starches; magnesium, sulphur and phosphorus influence the building-up of proteins. According to Professor Lyle Wynd, of Michigan State College, one of the gravest errors of modern plant nutrition has been to designate the mineral components in soil and fertilisers as “plant food.” The plant’s food is air and water. A new concept in agriculture and nutrition will result from this changed point of view. “Feed the soil (life), and the soil will provide the necessary elements for the plant” (Wynd).

Digestion is the function which breaks down the prepared combination of substance and releases the energies, both physical and etheric. Then the body’s own process takes over and rebuilds new combinations to its own pattern. The etheric body of the individual is the organising factor. As light and warmth are released and become apparent in the burning of coal, wood or candle—a release of the sunlight which was absorbed years or thousands of years ago by vegetation—so energies are released in the body according to a fashion inherent in this particular organism.

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One important law of the entire process is the law of the equilibrium or balance of function. What is meant can be deduced from a wider application of the second law of thermodynamics. The Russian physicist Chwolson expressed this more than 50 years ago in the general form: Nature tends to maintain a balance. Wherever there is a disturbance of the balance, a counterforce appears in order to restore the balance. Rudolf Steiner pointed out that this law has universal spiritual importance, as well as physical importance.

Another important law is the so-called law of the minimum. Derived originally from the relationship between the mineral content of the soil and plant growth (Liebig, Mitscherlich), it implies: Growth is determined by the substance present in minimum degree—i.e., this substance, whatever it may be, has a limiting effect. Translated into the biological concept of function—that is, of the dynamic relationships between all the factors collecting life—the law can be enlarged and will then include not only “substance” but also “energy,” or any factor pertaining to the life-process. The general validity of this law is quite obvious: factors related to growth include not only mineral nutrients in the soil, but nutrients of all kinds—humus, trace minerals, water, oxygen, carbon dioxide, air in general, nitrogen—in fact, the entire bio-chemistry of soil life with its enzymes, growth hormones, vitamins, and also all the vital energies, light and warmth and cosmic influences. We must also take into account inherited properties, the entire phylogeny and ontogeny, and, last but not least, the environment, with its supporting or disturbing influence.

Nitrogen in the soil may become deficient, resulting in a plant of weak growth, low protein content, and pale, flabby leaves. But nitrogen is plentiful in the surrounding air. It requires only the particular type of soil organisms which fix atmospheric nitrogen and make it available via ammonia or nitrates. If, on the other hand, humus and aeration are deficient, the proper bacterial activity absent, this complex of factors may be at the minimum level, and not the nitrogen compound itself. Or the determining influence may be the rhythm of light and darkness, or abnormal weather, with lack or excess of warmth. The plant will then not only grow with a lowered protein content, but with inadequately built-up enzymes and growth factors, so that as food it will convey not only its low protein but also a weakened biological activity, reflected in malnutrition. Abnormal conditions of metabolism are the result throughout.

It is well known that carrots may not contain even a trace of carotene (provitamin A), which got its name from the carrot, because of the neglect of factors related to its development in the plant. Such deficient carrots were created by means of an intensified fertiliser application designed to produce big yield (bulk). They did not have the time to develop the finer biological processes which make them nourishing. A strain of carrots was subsequently developed with a high carotene content, but its growth was slower and did not yield the large bulk-weight. Farmers did not like to grow them because housewives did not buy them, wanting only the biggest carrots and not knowing about the carotene content. One might say that here the intelligence and insight of the farmer and the housewife were the minimum—i.e., the limiting—factor, not the soil or plant.

If the factor of light and cosmic influence is, for any reason, at the minimum, we may still get bulky substance—i.e., big yields—but the vital energies carried on into the food will be low. This is the reason for much degeneration nowadays, for susceptibility to disease, low defence reactions of the body, etc. The etheric component is weakened. Increasing nervous disorders, even inability to take decisions, or to make mental adjustments to the faster and faster pace of modern life, may result.

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The other law, of the balance between all factors, applies in the same way, so that we can say: The sum total of all factors and functions is constant. We can easily see that bulk production may reduce the energy fraction. A man thus nourished may fail to get vital energies out of his food, in spite of all the protein, starches, sugars, fats he consumes. He eats a lot, but lives in a state of constant malnutrition. This phenomenon is only too well known, even in the countries of plenty, such as the United States or Australia. Malnutrition in the midst of plenty is all too familiar. If food were grown in such a way as to provide all the essential vitamins, trace-minerals and other factors and energies, people might not need to buy manufactured supplements. In the processing of food further valuable elements are lost, so that we need enriched bread and many other supplements. Modern life with its haste, mental strain, insecurity, lack of inner balance and lack of spiritual compensation, adds to the strain on human beings. To reckon only with matter and material values does not exactly help in this situation.

The concerted effort of the living organism to maintain a balance between all factors can be seen in every physiological or biochemical function. One further example may illustrate this principle. Urea is a waste product of human metabolism; it is toxic and must be eliminated. However, urea adheres by absorption to the red blood cell, together with the enzyme urease. Urease breaks urea down into ammonia, carbon dioxide and water. But the plasma fluid, where the red cells swim, contains another enzyme which prevents urease from breaking down urea. Then a balance is maintained, failing which a release of toxins would occur. However, in the mucous membrane of the stomach urea is broken down, and ammonia released, for a specific reason. Otherwise the hydrochloric acid plus the stomach enzymes (pepsin), which are necessary for digestion in the stomach, would attack the stomach linings and begin to digest these also, as they do with the stomach contents. The ammonia, transported by the red cells into the membranes of the stomach linings and released by urease, neutralises the acid and protects the stomach linings against self-digestion. Here the breakdown product, urea, acts as a remedy, applied by the wisdom of the body. A human being who by constant worry and

mental strain increases the breakdown forces in his digestive system, and is therefore in want of etheric energies which would rebuild or protect the stomach lining, does not get the benefit of this restoration and may develop ulcers.

It has been estimated that some 10,000 enzymatic reactions (breaking down and building up) take place every second in the living cell. The regulator of the protective, building-up phase of these reactions is the etheric body, which arranges and rearranges matter according to a pattern, reflecting the original cosmic order and harmony. (The breakdown phase is controlled by what Rudolf Steiner calls the astral forces, but to describe this in detail would be outside the scope of this article.) There is wisdom and obedience to law in these functions—more, in fact, than human beings can grasp consciously at present. They are controlled by a power of reason superior to man's. Thanks to the cosmic world-order, the arbitrary will of man cannot as yet enter into or control these so-called subconscious or autonomic functions of the nervous system. Understanding of etheric energy will gradually enable man to overcome the destructive effects of his arbitrary willing, feeling and thinking. Theories and hypotheses have to be replaced by an actual imagination of, or insight into, the etheric realm; otherwise man will only play with the unknown and perish.

One first step is the establishing of a conscious balance of emotions, a control of thought which will pass only such thoughts as are in tune with the cosmic order of the etheric. Such a living concept of function has immense possibilities. Not only will harmonious processes in the body be established, leading to an entirely different definition of health, but an appreciation of the concept of biological order will also influence the inter-relationship between man and man—that is, the social order. Emphasis is laid upon the word *organism*. In an organism, we have harmonious co-operation and co-ordination of all factors and function, a functional inter-relationship. To-day we are living in an a-social or even anti-social world. Groups, nations, fall apart because of conflicting group interests, whether economic, political, national or racial. To the body social it means as much as to a living organism to find the adequate co-ordination as result of a functional concept. If the heart were unwilling to co-operate with the lung or liver or eyes, disease would result. Disagreement between the members of an organism leads to malfunction. Finally, self-destruction ensues. This is true both of the bodily organism and of the body social. Nature teaches us the organic concepts of a superimposed form-pattern and of harmonious co-action. Man's task is to learn from nature how an organism works and then to create the body social accordingly, in tune with the cosmic order. Otherwise a materialistic concept of matter will lead only to atom bombardment, to fission and fusion; that is, to ultimate destruction. To recognise that there

is a higher order in man, which he can first come to know through changed ways of thinking, practised by free will: only this can create a truly human society. This is *humanity*. The individual, the group, the nation, the race, are all members and functions of this higher order.

BIBLIOGRAPHY

- Enzymologie*. O. Hoffmann-Ostenhof. (Vienna, 1954, Springer Verlag.)
 "The Enzyme as the Fundamental Unit of All Biological Activity." William H. Bond. (*Jour. Applied Nutrition*, Vol. 9, 1956.)
 Bundesanstalt für Qualitatesforschung Landwirtschaftlicher Erzeugnisse, Geisenheim: *Tätigkeitsbericht*, 1954/55 and 1955/56. Prof. Dr. habil. W. Schuphan.
Grenzen der Naturerkenntnis. Rudolf Steiner. (Dornach, 1937.)
Der Entstehungsmoment der Naturwissenschaft in der Weltgeschichte und ihre seitherige Entwicklung. Rudolf Steiner. (1937.)
Die Naturwissenschaft und die Entwicklung der Menschheit seit dem Altertum. Rudolf Steiner. (Dornach, 1939.)
Erde und Mensch. Guenther Wachsmuth. (Archimedes Verlag, 1952.)
Die Entwicklung der Erde. Guenther Wachsmuth. (Phil. Anthr. Verlag, 1950.)
Die Aetherischen Bildekräfte in Kosmos, Erde und Mensch. Guenther Wachsmuth. (*Der Kommende Tag*, Stuttgart, 1924.)
 "Sensitive Crystallization Processes." Ehrenfried Pfeiffer, 1936.
 "Textbook of Biochemistry." West and Todd. (Macmillan Company, 1951.)

AFTER EINSTEIN'S DEATH

Ernst Lehrs

1. Rudolf Steiner and the Theory of Relativity.

EXPONENTS of relativity theory have said that on the basis of this theory one cannot say whether it is the train that is moving over the earth, or the earth that is moving, in a contrary direction, underneath the train. To this, Rudolf Steiner gave a humorous reply. "Why not ask the driver," he said, "which of the two he has to heat?" It is a simple, lapidary, remark, but of untold significance in its bearing on the presuppositions and results of this mode of scientific thinking, which in Albert Einstein revealed only its ultimate consequences.

Referring to that part of the human organisation—the head—on which scientific research has been exclusively based so far, Rudolf Steiner often dubbed it the "sluggard," which allows itself to be comfortably carried about by the rest of the body. It is quite in line with this for relativity theory, as a purely "head" science, to pay no heed to the fireman, who has to use his limbs to stoke the engine, if the train is to move at all.

Even though it may seem otherwise in the West at present, and in Western Germany, too, the fact is that the social question is to-day a proletarian question and will remain so. As such, it cannot be solved by purely "bourgeois" thinking, such as holds itself entrenched in the castle of the head—a thinking so lacking in "hands and feet," that when considering the relationships of movement between the earth and a train, it ignores the human limb-system, without which the phenomena in question could not occur at all.

It was in March, 1921, on the occasion of the anthroposophical university course in Stuttgart, that some representatives of science invited Rudolf Steiner to discuss a number of fundamental scientific theses, such as the electromagnetic wave nature of light, the atomic structure of matter and the relativity of motion. Rudolf Steiner accepted the invitation, and the discussion took place before a breathlessly listening audience, composed mainly of young graduates. One episode, since it bears on the theory of relativity, may be mentioned here.

One of the speakers attempted, somewhat light-heartedly, to demonstrate the validity of the Einstein principle. First he lit a match in the usual way, by striking it on a stationary matchbox which he held in his other hand. Then he lit another, holding the match still and moving the box across it. Whereupon Rudolf Steiner, quite calmly and with what seemed like a sly smile, merely

asked: "How would you carry out your demonstration if I were to nail the matchbox over there on the wall?"

Here, just as much as in the previous case, Rudolf Steiner's remark proves to be a key observation. It opens one's eyes to something which is a quite general peculiarity of intellectual thinking—its inherent quality of "stripping as it goes." The cause of it is that this kind of thinking, when dealing with a part, declines to retain the whole within its consciousness. Relativity theory claims to make statements about the cosmos. The process brought about by the speaker in the above discussion, therefore, can be considered as a valid illustration of the theory only if it permits of repetition on a cosmic scale. To achieve this, however, with the second half of that light-hearted demonstration (which Rudolf Steiner, as we have seen, took in earnest)—that is, when the box is nailed to the wall—the person holding the match would have to take his stand somewhere outside the earth, at a fixed point in space, and from there would have to move the whole earth, with its buildings and the matchbox attached to them, across the match! In this way Rudolf Steiner made it clear that, as he repeatedly expressed it, relativity theory operates with "thoughts that one cannot really think" (*unvorstellbaren Vorstellungen*).

After this rejoinder by Rudolf Steiner, one could not but feel in the position of the child in Hans Andersen's well-known fairy tale, "The Emperor's New Clothes"; the child who, amidst a multitude of people of all ranks, all rejoicing over nothing at all, simply asks, "What is it?" But does not this imply, too, that we must again "become as little children"?

One other moment in that discussion, a deeply moving one in its way, may be recalled. Among those who represented the views of science was a young man who to-day ranks among the celebrated researchers in theoretical physics. I had heard him, not long before, give a course of lectures at his university on the theory of electrons. On the present occasion he had raised the serious objection that, for our observation, there exists no standpoint from which a cosmic motion such as that of a planet can be observed, except in relation to the movement of some other cosmic object of observation, and that therefore we have no right to bring such a motion into our scientific considerations in any other way than as a relative one. To this Rudolf Steiner gave the following reply. He asked us to imagine two people sitting on a bench in a park, and therefore both in the same state of motion, outwardly; but differing in that one of them is breathing normally and has a normal skin colour, while the other is deeply flushed, with his forehead covered in sweat, and is panting for breath. In such a case it would be evident, from observable differences in the physiological conditions of the two people, that one of them—though in this case at a time previous to that of the observation—had been in a different *absolute* state of

motion from the other. And in a similar way we shall come to the point, in science, of observing, on the single planetary bodies, phenomena from which it will be possible to read their *absolute* state of motion.

For myself, this was a moment when a curtain seemed to lift, giving a glimpse into a realm of possibilities of knowledge such as my heart had yearned for. There was the joyful realisation: "Here is a science that is true! Here is no piling up of hypotheses; here, limited actual experience is answered by wider experience and by the possibility of a widening of actual experience!" At that moment the physicist, greatly moved, sprang from his seat, and with emphatic gestures showing his emotion, exclaimed: "Yes, indeed, if some day that becomes possible, the theory of relativity will fall to the ground!"

Even though, for him, this experience has not made any immediate difference in his further scientific work, one cannot doubt that in his entelechy the event continues to live and will some day bring forth positive consequences for the spiritual progress of science. And a favourable ground on which this may come about was prepared by Rudolf Steiner through the fact that during the whole discussion—including the above moment—he made no attempt to persuade his opponents, by the methods of thinking to which they were accustomed, that their views were wrong and his own right. Instead, he simply put before his hearers again and again, with quiet certainty, what a realistic observation of the world could say about each question that was raised.

2. Another Einstein Secret.*

One of the things for which Rudolf Steiner was greatly concerned to arouse an understanding was the need—because of the whole nature of man and of his present-day social relationships—to pay heed not only to what a person says, but to the human and spiritual background of his utterances. To-day, more than ever before, it is true that "when two people say the same, it is not the same." A comparison of the utterances of Albert Einstein, on the one hand, and of Rudolf Steiner on the other, affords many examples of this. Often they are almost literally the same, but their spiritual quality, in accordance with the differing spiritual orientation of these two persons, is very different.

That Albert Einstein and Rudolf Steiner are thus mentioned in one breath need cause no surprise. The consequence of Einstein's spiritual struggles have been far too decisive for mankind for us to suppose that his appearance, in this age of great upheavals, was any

* After the title of an essay by Rudolf Steiner on Shakespeare: "Auch ein Shakespeare-Geheimnis." (See *Veröffentlichen aus dem Frühwerk Rudolf Steiners*, vol. II.)

the less a matter of destiny than that of Rudolf Steiner—the one as the thinker who pushed mechanistic thinking to its final, absurd conclusions, the other as the founder of the new knowledge of Initiation.

Let us, therefore, compare a few of their utterances, taken respectively from biographies of Einstein and from some of Rudolf Steiner's works.

There was an occasion when Max Planck, attempting to provide mathematical proof, after the event, for a result in mathematical physics which he had reached intuitively, had made an obvious error. Einstein's colleagues suggested writing to Planck to point this out. Einstein, however, declined, saying that the result was right and the error was only in the proof, and that the important thing was the result and not the mathematics. For "by means of mathematics, one can prove anything."

Rudolf Steiner was once asked whether it is not a proof of the validity of relativity theory that the movement of the planet Mercury, as calculated by it, agrees with observation (whereas this is not so with calculations based on classical mechanics). He, too, replied (and in a matter directly connected with Einstein's theory): "By means of mathematics, one can prove anything."

With regard to the relationship of theory and observation, Einstein professed the following conviction: "A theory can be tested by experience, but there exists no path from experience to the construction of a theory. Pure speculation alone puts one in a position to co-ordinate the phenomena of Nature." Therewith he turns his back on a view which has held the field in science since Bacon—that insight into objective reality can be gained only by inductive reasoning from what is given to our perceptions. True theory, according to Einstein, has the function of co-ordinating the separately arising percepts; and it can, accordingly, be attained only by "pure thinking" ("pure speculation").

The view which Einstein here abandons is that which Rudolf Steiner, in his *Philosophy of Spiritual Activity*, calls *metaphysical realism*. While from his own point of view he opposes it, he describes the true process of knowledge in the following words: "By thinking we fuse again into one whole all that we have separated through perception." So that both men ascribe to thinking the function of co-ordinating what confronts us, in perception, as separated elements. The ability of thinking to penetrate into the underlying ideas of the perceived world and to lay hold on them is called by Rudolf Steiner *Intuition*. Accordingly, in the above-mentioned book, we read: "What appears in observation as separate parts becomes combined, bit by bit, through the coherent, unified world of our intuition."

Both Einstein and Steiner, then, according to their respective points of view, hold that "pure thinking is able to grasp reality."

though the latter speaks of "Intuition" while Einstein refers to "Speculation." But these two activities are by no means so entirely different as might appear from the superficial present-day use of the words. Both words, in the Latin, are expressions for active exercise of the human power of insight: *speculari*, with the suggestion of spying out, reconnoitering; *intueri*, with that of taking note of, bearing in mind. Both, in their highest senses, connote activity of the spiritual eye.

* * * *

Through these two investigators, then, the spiritual tendency of the present time (I refrain expressly from saying, the present Time-Spirit) has spoken in so similar a sense that from an external point of view the words of one could be substituted for those of the other. And this is true even when they refer to their personal paths of development.

In Rudolf Steiner's *Story of my Life*, where he is describing a particular phase of his school days, we read how he tackled, with enthusiasm, a book on geometry which he had found at the home of the assistant teacher at his village school. He describes what he experienced from it as something "entering deeply into my life," something that became for him a "guiding influence." For "it brought me an inward joy, to be able to grasp something purely in spirit. It was in geometry that I first learned to know this joy."

Einstein, correspondingly, gives an account of the moment when, at the beginning of a school year at the classical school, he first encountered an elementary book on Euclid's geometry. He at once began to read it, and it brought him an experience which "decisively influenced his life." "Anyone who cannot be moved to enthusiasm by this work, in his youth, is not born to be a theoretical investigator"—so he said later in recalling this experience.

In the passage from *The Story of my Life* where Rudolf Steiner speaks about the special revolution in his soul which took place about the middle of his life, he twice remarks that, in a certain respect, his youthful development took its course "more slowly" than that of other people. To the same degree that, as a child, he lived very much in the spiritual world, which was something self-evident for him, he found it very difficult to master anything concerned with knowledge of the external world. Consequently he became "in this connection a person who was late in developing in every realm." He says also with regard to a "life-revolution"—again concerned with the relationship of the soul to what is given by the physical world—that he "experienced it much later than other people." And he mentions this as the cause of an important characteristic of his whole life of knowledge.

Einstein, for his part, when accounting for the fact that he, particularly, should have been in a position to create the theory of relativity, says: "The normal person does not reflect on problems

of space and time. He believes that whatever there may be to think about in this connection, he has already thought in early childhood. I, however, developed slowly, in such a way that I first began to wonder about space and time when I was already grown up. Naturally I penetrated more deeply into these problems than an ordinary child does."

Einstein's observation is here made with direct reference to the new view of space and time, and of their mutual relationship, which he had created. The corresponding thing which Rudolf Steiner says about himself had likewise, in its own way, the effect of indicating a new attitude of consciousness towards the nature of space and time. In both cases, the idea of three-dimensional space with an independent, abstractly flowing time, which the human mind had taken as a basic conception ever since Euclid, had to give way to a new manner of thinking. But here the two spirits part company; indeed, they proceed in such precisely opposite directions that we are bound still to recognise a relationship between them. For while, in Spiritual Science, our stiff spatial thinking becomes mobile in time-thinking and is therewith resolved and redeemed, and space is seen as a creation of time, in relativity theory time itself is spatialized, so that it forms, with the three dimensions of Euclid, a "four-dimensional space-time continuum."

How then was it possible that two men, who in a certain respect were endowed with such apparently similar gifts, should have come to such different results in their search for knowledge? The answer appears when we direct our gaze to the way in which knowledge arose in the one case and in the other.

Einstein once said of himself that "curiosity and obsession" had driven him to his meditations on physics, and explained this as the result of his peculiar "passion for understanding." The way in which the original conception of his theory came about is a clear example of this. After a long period during which he was struggling, almost to the point of despair, to think out new forms for the known fundamental laws of physics—in order that certain new observations and the theories bound up with them might find a place in the hitherto valid picture of the universe—he arrived at the conviction that a quite new formal principle, at the very beginning of the whole theoretical treatment of the world, was necessary. And in the principle of the relativity of motion he found the solution. Six weeks it took him, from the first idea to the writing down of the basic concepts. During this time he passed through severe disturbances of soul. After the work was finished he collapsed and was ill for a fortnight.

It may seem unbelievable that so difficult and purely mathematical a conception as that of Einstein should have come to birth in a state which reminds one of his biographers of mediumism; but this is, in reality, a symptom, though an extreme one, of the present-

day spiritual situation. In his lectures on "The Relationship of the Various Realms of Natural Science to Astronomy," Rudolf Steiner described this situation. Drawing attention to something which has come to be a characteristic spiritual requirement of modern mankind, and has therefore also become a requirement in science, he says: "A person tries, on the one hand, it is true, to have thoughts which are in the fullest possible degree open to survey—as are mathematical thoughts—but on the other hand he seeks also to have thoughts whereby it is possible to submit to the strongest possible inner compulsion. A modern man becomes uncertain and nervous directly he is not confronted with any inner compulsion, of the kind supporting the conclusions in the theorem of Pythagoras, but feels that he must himself decide—when, since no conclusion emerges from the figures he draws, he has to make the decision for himself, and must unfold activity within his own soul. Modern man is in fact fearfully passive. What he would like is to be led everywhere in the chains of quite objective linkages between the constituent parts of his judgments."

How far this is deliberate practice in university teaching circles, the following remark may indicate. It was made, so I was recently informed, by a university technical instructor to his pupils. After a mathematical formula for some technical process had been fully worked out, it had to be applied to practice, whereupon the instructor said: "Now, don't reflect any more. Let it be quite automatic. Everything now must be done by the mathematics itself."

This was certainly not the original relationship of men to mathematical thinking. Originally, mathematics was an inspiration of the gods, and a man could receive it when, after necessary preparation, he opened his soul in inward quietness to this inspiration. And in such a manner, even if a more shadowy one, were the great mathematical conceptions even of the nineteenth century still brought to birth. Thus the great mathematician Gauss could say that he constantly reached his results first, and had then to discover how to arrive at them. But it is no secret that such mathematical inspirations no longer happen. Conceptions such as the quantum theory of Planck, the relativity theory of Einstein, are none of them new mathematical creations; they are attempts to meet the theoretical requirements of physical research. Genuine inspiration in the mathematical field may come again, but it will be only through those who learn, on the paths of spiritual training, to raise themselves, through and beyond pure thinking, freely practised, up into the world where this inspiration has its source.

In the same way, the condition of soul and body which accompanies spiritual activity of this kind is quite different from that into which Albert Einstein found himself thrown when working out his fundamental theory. For it is the hallmark of modern and exact spiritual research that, while the spirit is active in the way here

intended, the body and that part of the soul which is connected with it remain quite undisturbed in their functioning.

* * * *

It remains for us to ask what it was, in Albert Einstein, that could lead him, in that decisive moment of his life, and in a realm of knowledge that lay so close to his heart, to act not as a true investigator but almost as a kind of medium. For in so doing he became the channel for a spirituality which is opposed to the development of free spiritual individuality in man, such as is appropriate for our time. The answer to this question, too, is given by himself, if we look at what he says of himself in the light of spiritual science.

Once, when he was in his twenties, Einstein was asked by a Jewish minister whether he believed in God, and his answer was that he believed "in Spinoza's God, who reveals Himself in the harmonies of all existence, but not in a God who concerns Himself with the destinies and actions of human beings." His conviction of the real relationship of pure thinking to reality enabled Einstein to become an adherent of the world-outlook of that great philosopher who first dared to think about the Divine with the same kind of thinking with which men grasp and manipulate mathematical concepts. But, in the last years of his life, Einstein had to undergo the painful realisation that Spinoza's world-outlook does not suffice for the very facts created by modern science. The properties which atomic physicists now have to ascribe to the atom do not fit into this world-view. They are characterised by the very fact that they are not manifestations of causality, but of mere chance, and so must be dealt with statistically. "I cannot believe that God plays dice with the world"—this was Einstein's protest against the atomic physicists who reckoned only in terms of probability. And yet their work has let loose terrible realities, and it was Einstein himself, as he admitted in the last moments of his life, who gave the decisive impulse which unchained them.

Now in this connection another thinker comes to mind—a thinker who was also attracted at first to Spinoza, who started from presuppositions similar to those of Einstein, but who came, in the end, to a point of view which is the exact polar opposite of his. This thinker was Goethe, and through him we come back to Rudolf Steiner, who developed and furthered Goethe's way of knowledge.

For Goethe, also, it was a pressing need to convince himself that we can "rise to a higher realm and approach the Primal Being" in the intellectual, as well as in the moral, life. Spinoza first brought him this certainty. But Goethe, on the path of pure Spinozism, encountered another difficulty. It is the difficulty in which Faust is shown at the beginning of the drama. Goethe's experience in this direction has been formulated by Rudolf Steiner in the following way: "Goethe felt deeply that man must strive for

knowledge, out of the very nature of his inner being; but he had no less feeling for the fact that, through this striving, thinking can lose its way in the far reaches of the world." Goethe felt this danger in Spinoza.

By omitting one word in the above formulation, and substituting Einstein's name for that of Goethe, one obtains an exact formulation of the tragedy of knowledge in the latter's case. It runs: "Einstein felt deeply that man must strive for knowledge, out of the very nature of his inner being; but he had no feeling for the fact that, through this striving, thinking can lose its way in the far reaches of the world." He did not notice the danger into which Spinoza's thinking led him.

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It is said to the credit of Albert Einstein that he had, in a high degree, the gift of thinking *without pictures*. His achievements were in fact due to this kind of thinking, and it was also this which caused him to fall a victim to the danger referred to above. What protected Goethe from this danger was precisely his faculty for thinking in pictures, which he owed to his inborn artistry. He felt that he was rightly understood when one of his contemporaries described his thinking as "objectual" (*gegenständlich*), in the sense of being concerned with what was present before him. As an artistic observer, he did not experience the Divine as that which, having put forth the world from Itself as a finished work of harmony, has withdrawn from it and from man and now lets it unroll according to eternal laws; a Being who, according to Spinoza, no longer had the power even to interfere in the world. For Goethe there was ever-present creative activity in all that Nature brings, in growth and in decay, before the eyes of man, and equally so in man himself. Goethe's words, "Who ne'er his bread with tears hath eaten, nor in the night of sorrowing upon his couch in grief hath wept, hath known you not, ye heavenly Powers," bear witness to a continued activity of the Divine in human destiny, which is just what Einstein was unable to admit.

The power to think without pictures is something man had to achieve in order to free himself from the picture-content of earlier clairvoyance and also, later on, from dependence on the pictorial impressions of the sense-world. To develop this faculty was the task of the old culture of the Hebrews; it was one of their commandments that they should make no likeness "of any thing that is in Heaven above, or that is in the earth beneath, or that is in the waters beneath the earth." The place of the treasure of imaginative pictures in other cultures was taken, in Hebrew life, by music. Even to-day musical talent and this particular type of thinking are still found together, especially among those concerned with the exact sciences; and in Albert Einstein this was so to an exceptional

degree. The old Jehovah culture is, in a way, summed up in the purely mathematical orientation of present-day natural science.

To-day, for the progress of the world, thinking needs to become once again pictorial by man's free achievement. The path is that first trodden by Goethe—"By beholding Nature in her continual creating, to become worthy of spiritual participation in her productions." Goethe, by following this inward path, became aware how Nature brings to manifestation, in manifold change and variation, that which is ever the same; and thereby he made his discovery of Metamorphosis, as one of the principles of her creating. Here, indeed, we find reconciled that which appeared to Einstein's mind as a contradiction between a mere "playing at dice" and a God who maintains the once-created world in pre-stabilised harmony. For none of the forms of Nature can be predicted in every detail; all, in this respect, are subject to outer circumstances. And yet, through all the changes, the primal creative Form behind the outer forms remains ever true to itself. The same holds true for the relation of the divine world to man. In the appearance of Jesus Christ the Divine imposed upon itself the greatest of all metamorphoses.

In this manner Goethe founded a natural science which befits the true relationship of the Divine to mankind. So, too, did he himself, as his later poems show, from being a pantheist become a Christian, because, in the outer world and in the inner life of man, he became able to experience the presence of the creative Word of Worlds that says of Itself: "I am with you always, even unto the end of earthly days."

If one looks on Albert Einstein as the noble character that he was, one may indeed think that it will be granted him, in those worlds where his eternal entelechy now dwells, to meet souls who, because in earthly life they accepted the knowledge of the present working of the Christ, will be able to help him to take that step, in spirit, which on earth he could not take, although he had many of the necessary gifts for it. And we may hope that in future times he will himself be one who helps to balance out that which has become, through thinkers such as he and others, a menacing destiny for mankind.

Translated by J. H. Jeffree.

EPOCHS OF EVOLUTION

John Waterman

THE article I wrote for last year's *Golden Blade* was devoted mostly to a discussion of modern "neo-darwinian" ideas about evolution and their relationship to the picture of evolution which emerges from the teachings of Rudolf Steiner. I tried to indicate how some of the apparent contradictions may be resolved, and to sketch briefly the kinds of evolutionary concepts which then emerge.

This article is intended as a sequel to the first, although it is written from a quite different point of view. Rudolf Steiner's account of the evolution of the earth and man includes many detailed descriptions of changing conditions of consciousness, of the activities of various spiritual beings, of the different relationships of the spiritual and physical members of man to each other during evolution, and so on. But he gives only the briefest indications of what the *physical* aspect of development was like, and only the sketchiest clues as to how the modern animals and the vast panorama of extinct fossil forms fit into the picture. To pursue this theme a little further is the purpose of the present article.

* * * *

Geologists divide the fossil-bearing rocks into three broad divisions, according to the nature of the fossils contained in them. The divisions are: Palæozoic—the rocks containing ancient forms of life; Mesozoic—"middle life"; and Cenozoic—or rocks containing recent forms of life. Broadly speaking, remains of invertebrate animals and of primitive fishes dominate the Palæozoic strata; reptile remains dominate the Mesozoic strata; and mammal remains dominate the first part of the Cenozoic (the Tertiary strata). Not until the later Quaternary strata, after the great Ice Age,¹ are fossil remains found of man as he is to-day.

The following very simplified table (to be read upwards) will summarise this:

Cenozoic	Quaternary	Man appears Ice Age
	Tertiary	"Age of Mammals"
Mesozoic	Cretaceous	"Age of Reptiles"
	Jurassic	
	Triassic	
Palæozoic	Permian	"Age of Fishes"
	Carboniferous	
	Devonian	
	Silurian	
	Ordovician	
	Cambrian	
Pre-Cambrian		No fossil remains

¹ There is evidence of other ice-ages during earlier geological epochs, but in this essay I shall use the term to refer only to the most recent one, which—with warm intervals—occupied most of the Quaternary, and ended about 8,000 B.C.

Between these main groups of animals, various other groups mediated. For instance, towards the end of the Palæozoic, especially during Carboniferous times, remains of all kinds of amphibian creatures, half-way between fish and reptile, abound. During the second half of the Mesozoic, and at the beginning of the Cenozoic, various "mammal-like" reptiles, and curious primitive mammals, are found.

These geological epochs are relatively simple compared with the complicated series of evolutionary stages described by Rudolf Steiner, but it will be helpful to try to see how the two sequences are connected. In the first place, Dr. Steiner refers to three "planetary incarnations" which preceded the present earth; he calls them "Old Saturn," "Old Sun" and "Old Moon." Between each of these incarnations, creation returned to a purely spiritual existence for a while.

The present solar system can be regarded as the fourth incarnation of the cosmic bodies which have evolved through these stages. Man himself, and also the animals, plants and minerals, are not simply a product of evolution on this earth, but were involved in the earlier stages, too. Man's physical body, according to Rudolf Steiner, began its evolution on Old Saturn. His etheric body, which endows his physical substance with the capacity for growth and reproduction, began to evolve on Old Sun. His astral body, the bearer of feelings and passions, began its evolution on Old Moon. Man's individual spiritual core, his Ego, has only just begun its evolution, and the central significance of the present planetary incarnation—the Earth stage—is to allow the Ego to begin to transform the three older members of man so that it can come to full expression in them.

The minerals have only a physical body on the earth, and are therefore at a stage comparable to the evolutionary stage of man on Old Saturn. (Dr. Steiner says that if the minerals could talk, they would tell you about conditions on Old Saturn. They have, so to speak, an "Old Saturn consciousness.") Similarly, the plants have a physical and etheric body, and an "Old Sun consciousness." The animals have an astral, etheric and physical body, and a consciousness reminiscent of that possessed by man on the Old Moon. Only man himself has an individual Ego incarnated on the earth.

In another sense, however, the hard, solid, present-day minerals are very much a product of the present stage of evolution. On Old Saturn, Dr. Steiner says, matter did not become material at all in our sense; it condensed from out of a purely spiritual condition into a state he describes as one of finely differentiated warmth. On Old Sun, something like a gaseous state was reached; on the Old Moon, a liquid state; solid substance as we know it now is a product of the Earth evolution. But in speaking of "gas" and "liquid" it is important to realise that this is only an analogy. Nowadays, we mean by gas something just as solidly physical as stones and rocks,

but very finely dispersed. We must picture the "gas" of Old Sun, or the "liquid" of Old Moon as permeated with tremendous spiritual forces, and the entire planet as a vast living being in its own right.

The present earth-evolution began with a kind of recapitulation of the previous stages, and substance itself passed through these earlier conditions. Just as the human being passes through embryonic stages and develops a really hard skeleton only gradually, some years after birth, so the present mineral body of the earth developed gradually through various "embryo-like" stages, when its substantial condition was quite different from what it is now.

* * * *

Rudolf Steiner describes five main evolutionary stages of the earth up to the present. He calls them Polarian, Hyperborean, Lemurian, Atlantean, and Post-Atlantean (our own).

The Polarian epoch began in a way reminiscent of Old Saturn, with a kind of condensation from out of the cosmic periphery of a planetary body consisting of "differentiated heat." This body contained the present sun, moon, earth, and all the other planets within itself. During the Hyperborean epoch further condensation took place, and gave rise to a body consisting of warmth- and light-filled air. At the same time, the outer planets, Saturn, Jupiter and Mars, were separated off from the parent body, which still contained the sun, earth, moon, Mercury and Venus. The Hyperborean epoch closed with the separation of the earth—still containing the moon—from the sun.¹

The Lemurian earth was the scene of a great many events of the utmost significance for mankind. Dr. Steiner's descriptions of this epoch take some getting used to, for the whole aspect of the earth at that time was extremely strange. But, unlike the Polarian and Hyperborean epochs, the Lemurian age is the first which has left direct physical remains which we can study, and is therefore in some ways more accessible to our understanding.

We must imagine the earth at the dawn of the Lemurian age as a huge, egg-shaped, living body, much larger than it is now, consisting of liquid imbued with air and warmth. The densest matter was in a fine colloidal, or "aerosol," condition. Gradually the centre of the earth began to differentiate from the periphery, and, in particular, heavy metals such as iron and nickel began to condense into the centre. The present heavy metallic core of the earth originates from this time.

On to this inner core a "rain of silica," in Dr. Steiner's phrase, began to fall, condensing down out of the surrounding warmth- and air-permeated liquid to form the first beginning of the earth's crust.

¹ Dr. Steiner says that Mercury and Venus did not separate from the sun until after the latter had separated from the earth.

This kind of sedimentation from out of the fiery, misty, watery, living atmosphere, continued throughout the Lemurian epoch to a greater or lesser extent, and to this process a major part of the geological strata we know to-day are to be attributed. The pre-Cambrian, Cambrian, Ordovician and Silurian rocks were laid down in the first part of the Lemurian epoch, but it must be borne in mind that they had a quite different consistency—colloidal and "foamy" at first, then jelly-like, and later more waxy and horny, but still "alive" to some extent, and "dying" to become minerals as we now know them only at a much later stage.

To an orthodox geologist this whole picture will, of course, sound simply fantastic—but this is largely because scientists have got so used to the assumption that "laws of nature," and the physical conditions to which they apply, are eternal and immutable. But there is no special evidence to support this metaphysical assumption, and it would clear the way for a much more subtle and dynamic view of evolution if orthodox science would consider the notion that not only plants and animals, but the whole earth, the matter of which it consists, and physical "laws" themselves, have been subject to evolution. If one looks at a cliff face containing convoluted layers of rock which seem to have been twisted about like plasticine, it becomes almost impossible to believe, as orthodox geology would have it, that ordinary hard rock was slowly bent into such shapes simply by enormous pressures. It is much easier, for the naive observer at least, to imagine a time when the rocks had a more toffee-like consistency, and the whole surface of the earth was far more active and flexible.¹

* * * *

The strata known as Carboniferous, Permian, and Triassic belong to the middle part of the Lemurian epoch. During this period, according to Rudolf Steiner, an extremely important event occurred—the separation of the moon from the earth. In the part

¹ Similar considerations apply to time-scales. According to Dr. Steiner, the Atlantean Age ended, and the post-Atlantean began, about 7200 B.C. This corresponds very well with the end of the Ice Age, in about 8000 B.C. On the other hand, Dr. Steiner puts the middle of the Atlantean Age at something over 15,000 years ago—but the geologists put the middle of the Tertiary at some 15 million years ago. The geologists' calculations, however, are based on the assumption that physical processes have always gone on at the same sort of speed as they do now. But Dr. Steiner says that even the idea of a year is no longer valid earlier than mid-Atlantean times, as it is only since then that the earth has been revolving round the sun at the same speed and in the same orbit as it does to-day. Thus when geologists put the beginning of the Cambrian at some 500 million years ago, this represents an extrapolation of contemporary time-scales back into ages when they do not apply. Before Atlantean times, in fact, it is pointless to think in terms of numbers of years; one has to think purely qualitatively, instead.

of the earth where the Pacific Ocean now is, a kind of infolding of the earth's crust occurred, and a separate planetary body was formed, which was then ejected to become what is now the moon. Into this body were concentrated all those substances and forces which had tended to make the solidification and hardening processes of the earth go on too fast.

The departure of the moon left a huge "wound" in the earth, and many of the geological revolutions of the period were caused by the whole earth's crust trying to "grow" over from the western pole of the earth, in order to "heal" this wound. The whole Pacific basin is to-day surrounded by mountain ridges which provide evidence of this process, and the constant volcanic activity and colossal chasms which still exist in the floor of the Pacific show that the wound is still not healed.

Through the steady precipitation from the thick colloidal atmosphere, a hot watery earth surface, with islands of denser material floating in it, gradually formed. The core of dense fiery material was constantly breaking through the very thin crust. The atmosphere itself was still extremely heavily laden with water, but was thinning slowly all the time.

The swampy regions of the tropics to-day are a kind of echo of conditions during the final part of the Lemurian epoch, after the departure of the moon. But one must imagine everything mineral in a more plastic state, temperatures higher, the air still much thicker, and volcanic activity, often on a tremendous scale, going on all the time. Above all, one must remember that all matter was still far more intimately woven through with spiritual forces. The Lemurian epoch ended when the Lemurian continent—roughly on the site of the present Indian Ocean—was destroyed by a fiery volcanic catastrophe, and the principal scene of evolution, as far as mankind was concerned, became Atlantis, where the Atlantic Ocean now is. The beginning of the Atlantean epoch coincides approximately with the beginning of the Tertiary. During this period the earth's crust gradually became much more solid; volcanic activity diminished, and the atmosphere, though still very watery by our standards, became gradually clearer. During the later phases of the Atlantean epoch parts of the earth began to get much cooler, and the Ice Age drew on. Atlantis itself was destroyed by a water catastrophe and now belongs to the bed of the Atlantic Ocean.

By this time the glaciers which had covered most of northern Europe were receding; the end of the Ice Age marks the transition from the Atlantean to the first post-Atlantean epoch. At last, conditions on the earth had become very like those of to-day.

This is a very simplified account of a very complicated series of events, but to go into more detail would make this article too long. The table below is an amplification of the table on page 48.

Cenozoic	{	Quaternary	{	Post-Atlantean epoch	Modern man
		Tertiary.....	{	Ice Age	
				Atlantean epoch.....	Mammals
Mesozoic	{	Cretaceous	}		Late Lemurian epoch.....
		Jurassic			
		Triassic			
					Reptiles
Differentiation and departure of the moon. ¹					
Palæozoic	{	Permian	}		Middle Lemurian
		Carboniferous			
		Devonian			
		Silurian	}		Fishes
		Ordovician			
		Cambrian			
Pre-Cambrian		}		 Early Lemurian	
Geology begins					
Condensation as far as air- and warmth-filled liquid.....					Hyberborean
Condensation as far as warmth-filled air.....					Polarian

Purely spiritual existence.

* * * *

When we look at the huge panorama of geological strata and fossil animals, together with the existing animals we know to-day, several important questions force themselves on our attention. Why, in the first place, is a distinctive group of vertebrate animals associated with each of these geological divisions (which match at the same time Rudolf Steiner's evolutionary stages)? What is the significance of the "Age of Fishes," the "Age of Reptiles," etc.? Why are mammals and birds the dominant vertebrate creatures now (excepting man himself), rather than reptiles or amphibians?

The physical remains of past evolution reflect spiritual and cosmic evolutionary processes which were going on at the same time. The series of fossil animals reflect—but only *reflect*—the evolutionary processes which prepared a physical body into which the Ego of man could incarnate. How, then, are the spiritual events which took place during the epochs described by Dr. Steiner reflected in the physical events we have been considering?

The succession, fish-reptile-mammal-man, is in itself suggestive. The fish lives suspended in water. It is dependent on the sea for

¹ The departure of the moon was a *gradual* process. I have not been able to find an exact indication by Dr. Steiner, but it seems likely that the differentiation of the moon-substance began towards the start of the Carboniferous, and that the whole process of separation was complete by the end of the Triassic. The Permian is a mid-point. It is noteworthy that geologists can never quite decide whether to include the Permian in the Palaeozoic or the Mesozoic.

everything—for moving about, eating and breathing; the sea looks after its eggs; its behaviour is closely interwoven with things happening around it in the water. The consciousness of fish seems to be spread out in a kind of deep watery dream through the ocean; it has little or no internal soul-life of its own. Fish are united with, given up and abandoned to, their environment.

The reptile breathes air. It has limbs on which it supports itself, and eyelids of a kind, so that it can shut out impressions from the environment. It is still bound up with the environment in many ways—if the weather gets cold, it gets cold too, and many reptiles depend on the sun's warmth to hatch their eggs. But the reptile seems to have an internal life which is more separate from the environment than that of the fish is; there is a new sort of action and reaction between the creature and its surroundings.

If one looks at the fossil skeletons of mesozoic reptiles, one can read something of the "character" of the various forms: the fierce carnivores, with predatory jaws and powerful limbs; the huge, placid-looking *Diplodocus*—a reptilian version of the cow; the delicate bird-like flying reptiles, and so on. It is true that primitive fossil fish also may look extremely fierce, or fantastic. But this impression is not derived from the *internal* skeleton of these animals, about which little is known in many cases, since it was cartilaginous, and has left few fossil traces. The fishes' "expressions" derive largely from the elaborate external armour of plates of various kinds in which most of these early forms were clad. Here again, one feels that the fish's "character" is somehow "impressed" upon it from outside.

The mammal is warm-blooded. It can maintain its own internal world of warmth, which the reptile cannot. It can reproduce its own kind with negligible help from the environment, and, from its larynx, it can give birth to a wealth of new sounds, where the reptile can only produce, at best, mechanical hissings or drummings.

Thus the fish is a water creature; the reptile "conquers" dry land with its limbs, and air with its lungs. The mammals "conquer" the element of warmth, and can express their inner experiences to a limited extent in sounds.

* * * *

What does this succession of "water animal," "air animal," and "warmth animal" suggest in the light of Rudolf Steiner's teachings? The watery element may be regarded as a kind of gate through which *etheric* forces can enter the physical world. Seeds start to grow when they are wetted, and the physical bodies of all living things contain more water than anything else. Similarly, air is in a sense the gateway for *astral* forces. The air carries the cries of animals which express their pains and pleasures. Our breathing is particularly sensitive to our feelings and passions. The soul-life of the whole planet is expressed in the winds and weather which

swirl over the earth's surface. The atmosphere is in a sense the physical expression of the earth's astral body.

The warmth element bears Ego forces into the world. We speak of the "warmth" of someone's personality. We may also speak of a "cold fish," where the Ego-hood of a person does not come out into the world properly to meet other people.

I think we should regard the "Age of Fishes," the "Age of Reptiles" and the "Age of Mammals," therefore, as a reflection of the changing and evolving relationship between the physical, etheric, and astral bodies, and the Ego, of man himself. By the dawn of the Lemurian age, a tenuous etheric-physical vesture for man had already evolved, formed in the fiery misty living atmosphere out of which the more solid parts of the earth were gradually condensing. The astral and Ego principles of man were still hovering in a more purely spiritual condition round the earth's periphery. Where this tenuous vesture was taken hold of by beings who were over-eager, so to speak, to unite themselves with the solid earth-element which was beginning to emerge, primitive fish forms began to appear, swimming in the denser parts of the earth's watery, fiery atmosphere (a division between air and water had not yet taken place). In this way, the fish lost the chance of beginning to incorporate astral forces into itself in a more intimate way.

Gradually, something like solid land—but still very plastic and imbued with life-forces—arose, and in the atmosphere a less dense, hot, gaseous, steamy part began to divide from the denser, more watery part. Astral forces were beginning to work down into the body of the earth, and into the physical-etheric vesture of man. The human bodies of that time lived in the thick Lemurian atmosphere, half-floating, half-flying. They would have looked grotesque, as an embryo looks grotesque, and were distinctly reptilian in appearance. (Dr. Steiner describes the physical body of mid-Lemurian man as looking rather like a "soft-bodied dragon.") In the Mesozoic reptile fauna we can trace the expression of beings which seized on the human physical-etheric-astral substance in order to descend at once into material existence, thus creating forms in which they were, so to speak, imprisoned, with no opportunity of evolving further.¹

There is, however, a further essential aspect of the evolutionary process which must be taken into account (however briefly and inadequately) at this stage. According to Dr. Steiner, the departure

¹ Dr. Steiner has spoken also of this process from another point of view. The premature descent of these beings into matter was at the same time a sacrifice which made it possible for man to continue his intended evolution. In taking form as the reptiles of the Mesozoic age, these beings absorbed into themselves part of the powerful limb- and lung-building forces which were working on man at the time, and might have drawn him down prematurely to walk on the earth and breathe physical air if they had not been partially diverted, as it were, into the reptiles. Similar considerations apply to other animal forms.

of the moon in the middle of the Lemurian age had a definite connection with what we call the "Fall of Man." The Fall occurred when certain spiritual beings—the Luciferic beings—entered into man's astral nature and were able to endow it with a certain independence from the higher beings who had previously guided it. Through this, man became the possessor of a wild and fiery astrality which his Ego was too young to control. This astrality-run-wild is reflected right down into the Mesozoic reptiles, with their often terrifying and stormy aspects.¹

The Luciferic influence had the effect also of drawing man into closer connection with the fiery, or astral, forces of the earth, and thus causing him to "fall" from the cloud-regions to the earth's surface. The departure of the moon may be regarded as a necessary counter-influence to these events. By reducing the gravity and hardening forces of the earth, it enabled man to take an upright posture, thus freeing his hands for creative work, and also to postpone the hardening of his physical body until it was sufficiently developed to bear the Ego. While mankind was living in physical-etheric-astral form on the volcanic turmoil of Lemuria, where astral forces were running wild, the human Ego was able to hold back, so to speak, and not become involved in physical existence until the beginning of Atlantis. (The volcanic fiery catastrophe which destroyed Lemuria was caused, Dr. Steiner says, by a release of astral forces which man could not control.)

Man's adoption of an upright posture is reflected also in the reptiles. During the middle of the Mesozoic, many forms arose which walked or ran on two legs, and stood almost upright. But during the second half of this epoch something particularly interesting happened. On the one hand, the reptiles were gradually overcome again by gravity, and sank back on to four legs—some even took to the water, like the crocodiles. At the same time, some forms seem to have gained a certain freedom from gravity, and various flying, bird-like reptiles, together with the first primitive birds, appear in the fossil record.

By the end of the Mesozoic—which is also the end of the Lemurian—something like the present-day division into dry land, sea and air had taken place, although—compared with any conditions we know to-day—the land was much softer and wetter, the water much thicker, and the air much waterier. At this point the real task of earth evolution—the gradual descent of the Ego into the physical world—could begin. Gradually, the physical-etheric-astral vehicle for the Ego was made ready to receive it. In the

¹ It is not without significance that the Devil comes to Eve in the Garden of Eden in the guise of a reptile. But I do not think we should picture this Devil as a snake—he did not crawl upon his belly until he was himself cast out of Paradise—but rather as a winged and fiery dragon (and in the Oberufer Paradise Play this is indeed how Lucifer appears). The whole of Mesozoic evolution bears this dragon-like imprint of Lucifer.

wonderful panorama of fossil animals during the Tertiary period, from the so-called mammal-like reptiles, up to the apes, we see a remote reflection of this process. Remote, because the beings who expressed themselves in the Atlantean-Tertiary mammals had parted from the human evolutionary stream right back in the Mesozoic, and had then renounced the possibility of ever giving full expression to the Ego-principle in the physical world. Nevertheless, the warm-blooded animals represent an attempt to incorporate the Ego—but an attempt which had to stop half-way.

* * * *

By the end of Atlantean times the human physical vehicle had reached a stage when it could begin to receive the Ego fully into it, and when also it was mineralised enough to leave fossil remains. (This is a rather simplified picture. In his book, *Der Mensch der Eiszeit und Atlantis*, Sigismund von Gleich traced the connection between some of the fossil forms of "primitive man" and the later Atlantean races. But to go into this would need too much space.)

However, the picture can be developed a little further from another aspect. As we have seen, the physical, etheric and astral bodies of man began their evolution on Old Saturn, Old Sun, and Old Moon respectively. When the earth evolution began, these principles already existed, in a certain sense, as spiritual "Ideas." The first three evolutionary stages of the earth, the Polarian, Hyperborean, and Lemurian, were recapitulations of Old Saturn, Old Sun and Old Moon, necessary in order to adapt the physical, etheric and astral principles of man to earthly conditions, ready to receive the Ego. But a similar recapitulation can be discerned within the Lemurian age itself.

The "Age of Fishes" is like a memory of Old Sun; the fish, with its consciousness spread out in its environment, given up to the watery element, is the nearest a vertebrate animal can get to the plant-like consciousness and condition which characterised the stage of evolution reached by man on Old Sun. Similarly, the Age of Reptiles is a recapitulation of Old Moon, in which astral forces come to expression with great force. The Atlantean (or Tertiary) sees the beginning of something new, which belongs to the earth alone.

In this connection it is interesting to observe how all the mammals seem, in a sense, much *younger* than fishes or reptiles. Reptiles, in particular, seem to bring an almost uncanny recollection of times long, long ago, before man was man at all. Most of them live secret lives in parts of the world, such as the tropical jungles, where man is not welcome or at home. Just as we may look at the plant kingdom as a legacy of Old Sun, so are the reptiles a legacy of Old Moon, as well as of the Lemurian Age.

The animals with which man has most to do on earth to-day are "new" animals, so to speak. There are still some "old"

animals about—the reptiles, curious creatures such as the rhinoceros (which while a mammal has a prehistoric air), and various eccentric forms. But we are most familiar with the modern birds, and with herbivorous and carnivorous mammals such as the cows, the cats and dogs. These groups somehow “belong” to the present age.

The special connection of these groups of animals with the present age, the “Age of Man,” is indicated in the figure of the Sphinx, which is at the same time a kind of composite figure of man himself. The Eagle, the Lion and the Bull are expressions of forces which work in the head, the heart, and the digestion and limbs of man respectively. Now looked at zoologically, so to speak, the Sphinx is curiously lop-sided—the Eagle is a bird, but the Lion and the Bull are both mammals. This implies that man’s heart and limbs have something in common which is not shared by the head. I believe a key to this problem lies in the fossil record.

During the Mesozoic a division took place between “mammal-like” and “bird-like” reptiles. But while modern mammals, in their whole character, have “broken” with the reptiles, so to speak, the birds, in an interesting way, have not. A bird is like a reptile in disguise: its feathers make it into a beautiful creature. As it swoops and circles in the air, it seems a creature of light, air and warmth, ignoring gravity completely. But look a bird closely in the face, and one becomes aware of the curious mask-like quality of the head, with its hard and often cruel beak, and unwinking eye. A plucked bird, or an unfledged nestling, has loose, wrinkled skin, reminding us of the skin of an extremely ancient man or woman. Removing the feathers from a bird unveils it as a reptile. A thrush running across a wet lawn betrays its reptile connections immediately: it runs a few twinkling steps, like an agile two-legged lizard, and then stops, with the same uncanny frozen immobility as the lizard—a peculiar immobility of which mammals are incapable. The bird fauna, represented in the Sphinx by the “king of birds,” the Eagle, seems to point back to a distant past, to the “Age of Reptiles,” in fact. Why should this be?

The Eagle represents the head forces in man. (Dr. Steiner described birds as animals which are “all head.” The legs are insignificant twigs, while the digestive system—compared with that of a cow—is little more than an afterthought.) In another connection, Dr. Steiner has also described the special connection which man’s head has with the past. When we return to earth for a new incarnation, we bring what we have experienced through our limbs, and what we have learned through our deeds, back into the world, but transformed and “summed up” in our head. Every child bears its past life in a metamorphosed form in its head, while in its limbs lie the germs of its future life. Now the bird fauna seems to me a sort of reincarnation of the Mesozoic reptile fauna. It brings over into the earth-evolution proper—into Atlantean and post-Atlantean times—a transformed summary of the physical-astral-

etheric nature which expressed itself on Lemuria, and was really a recapitulation of something which developed on Old Moon. The bird is a metamorphosis of an animal form whose great achievement was the development of limbs (the reptile) into an animal which is “all head.”

In the same way, the Eagle in the Sphinx points us back to our past—to our past life, but also to our whole past evolution. The emergence of the birds reflects the transformation of man’s Old Moon nature into its earthly form. In his head, man bears not only the imprint of his past life, but also the imprint of his past as a whole. In his head he is a metamorphosed denizen of the Old Moon. (In his rhythmic system, his blood and breathing, on the other hand, he is a citizen of the earth. Through his limbs, he already works towards a future planetary incarnation of the earth, called by Rudolf Steiner the Jupiter incarnation.)

The fact that the bird reproduces by means of an egg—that there is a kind of discontinuity in the physical world between mother-bird and offspring—is a hint that the head aspect of man is connected with his past through reincarnation. In the mammalian part of man’s nature, that which bears the forces of his present and future life, he is connected with his past through the continuous stream of heredity, expressed in the milk which the young animal draws from its mother.

* * * *

The fossil record is taken by orthodox scientists to express purely physical events. But with the help of Dr. Steiner’s teachings, these old, stone bones can take on quite new life. They reflect, often in a quite startling way, the great cosmic and spiritual events which Dr. Steiner described in his account of the evolution of the earth and of mankind. There is nothing fortuitous about the huge fossil fauna, or about the animal forms which surround us to-day. They all have definite parts to play in the scheme of things; every animal “makes sense.” Sometimes, to our eyes, the æsthetic quality of a creature—a tiny tropical fish, for example—may be more apparent than its usefulness. But it should be possible to “read” in the forms of all existing and extinct animals an expression of specific spiritual forces, beings, and events. A future “spiritual zoology” will have to try to do this.

Here I have tried only to trace, broadly and rather sketchily, the way spiritual and physical evolution have intertwined in the animal kingdom—or, rather, in the vertebrates—and the relationship of the animals to man, both in the past and to-day. It is as a very provisional sketch that this article should be read.

DANTE'S EXILE

Paolo Gentili

IF I ask myself—what do you love most in Dante, the poet, the scholar or the statesman?—I can only say: the man himself, his personality and his destiny. His destiny led him into exile; his personality is best revealed in the way he bore his destiny. So I will try here to say something about his exile.

In the *Paradiso* Dante speaks of this in enduring verse:

If ever it happen that the sacred song
Where to both heaven and earth have set a hand,
Whereby I am lean, these many years and long,
O'ercome the cruelty which keeps me banned
From the fair sheepfold where I slept, a lamb
Foe to the wolves that raven through the land.

Paradiso, Canto, XXV (Laurence Binyon's translation).*

Dante, this strange "lamb," was "foe to the wolves," and suffered their implacable vengeance because, when a lamb does not fear the wolves, but fights them, all the forces of evil rise against it.

In a lecture given on 23rd October, 1915, Rudolf Steiner speaks of Dante's exile. He mentions it incidentally, as an example of the metamorphosis of the impulses active in history. He starts from a discourse on Dante given by Carlyle, where Carlyle had observed how strange it was that often, from apparently fortuitous events, really great things came to birth. Thus we owed the *Divine Comedy* to Dante's political misfortune. Had Dante remained in Florence, he would have become something similar to a "Podesta" of Florence (Carlyle calls it a Lord Mayor), but he would not have written the *Divine Comedy*. Dante had to suffer an adverse destiny in order that humanity might have the *Divine Comedy*.

Rudolf Steiner remarks that Carlyle was certainly a highly-gifted man, but that he had no idea of what humanity had lost through the exiling of Dante. "Imagine that Dante, instead of being exiled, had become a sort of Councillor, Head of the city of Florence, and had achieved—because of his great gifts—all that he could have achieved. Many things would have come about through the work of Dante, but we should not have the *Divine Comedy*."

"The case, however, is not so simple. Imagine that Dante had achieved his aim. History would then have taken another course; Florence would have had a great Head. But this is not enough; try to think yourselves into this Florence that would have been upheld by its Councillors using those faculties which, instead, flowed into the *Divine Comedy*. Such an inspired administration would have had

the consequence that the hidden activity of very many forces would have been held back.

"Had Dante become Head of the city, he would also have had a successor of exceptional worth. There would indeed have been seven such successors (the day will come when we shall be able to explain this). Seven men of great worth would have successively upheld Florence. Something truly great would have emerged—but there would have been no *Divine Comedy*. Dante was born in 1265. We live to-day in an epoch when we would still be feeling the effect of the actions of those seven men, for the effect would have lasted for 700 years. Seven centuries would have taken a different course. . . . All this did not happen. There is still the Roman Catholic Church, but there is also the *Divine Comedy*. I wanted to give you this example of how forces are transformed in the great ordering of world history."

We cannot find evidence that Rudolf Steiner ever returned to this subject, or ever developed further what is here only indicated, and so there remains the task of replying to the questions: What would have come about had Dante not been exiled? What hidden forces would have been held back by him? What would he have accomplished? What would have come about in Florence?

It will be best to start with the happenings leading up to Dante's exile. It is clear that if his remaining in the Government of Florence had been destined to have such important repercussions, a recognition of the forces which led to his exile may be a very important indication for us. Let us then follow Dante in his career.

After having dedicated himself to the study of philosophy, theology, history, jurisprudence and the classics, and having assimilated nearly all the culture of his period, he entered public life when close upon thirty. As R. L. John remarks, he exchanged a contemplative life for the active one to which he was inclined, and for which the former had been a preparation. Dante affirmed himself at once by the power of his genius. Although he was officially only one among the many *Priori* ("First Men") of the Republic, his personal authority was such that—to quote Boccaccio—"no legislation was heard, to none was there answer given; no law was signed, nor abrogated; no peace was made, no public war was undertaken; nor, briefly, was any weighty deliberation held, unless he had first pronounced upon it. In him reposed all the public faith, in him every hope; in him, to sum up, things Divine and human seemed to dwell."

Evidently, Dante would have been able to uphold Florence with those forces which later flowed into the *Divine Comedy*, and this without changing the constitution. Without even becoming a Tyrant; but relying only on the confidence which his personality inspired.

* The late Laurence Binyon's translations of the *Divine Comedy* (*Inferno*, 1933; *Purgatorio*, 1938; *Paradiso*, 1943) are all published by Messrs. Macmillan. Permission to use the quotations has been granted by the Society of Authors and Mrs. Cicely Binyon.

Dante was in the Government of Florence as an exponent of the "Whites" (moderate Guelphs). Pope Boniface VIII wished to bring the "Blacks" (intransigent Guelphs) back to power. Having failed to accomplish this by sending the Cardinal Legate Acquasparta, he solicited the coming of Charles of Valois, with a French army.

The approach of Charles caused a panic in Florence, and it was decided to send an embassy to the Pope to implore his help or mediation. Boccaccio tells us: "And when there came up for deliberation as to who should be the leader of this legation, it was said by all that it should be Dante. To which request Dante, somewhat above himself, said, 'If I go, who remains? If I remain, who goes?'—almost as though he alone were the one who counted among them all, and through whom all the others had value. The saying was heard and garnered; but that which followed is not relevant to the present purpose, and therefore I pass on and leave it."

That which followed is a tragedy—and not only for the personal destiny of Dante. Dante went to Rome, where the Pope "entertained" him for about 40 days. Meanwhile, Charles of Valois entered Florence. The "Blacks" got the upper hand, sacked the houses of the "Whites" and took over the Government. They condemned Dante to exile, and he never again saw Florence. His political activity was at an end.

Charles of Valois was a brother of Philip the Fair, King of France and one of the most evil Sovereigns known to history. It was the demonic impulses working through Philip the Fair, in sorry conjunction with those of the wicked Pope Boniface VIII, which impeded Dante's mission; those same forces destroyed the Templars and, working through Charles of Anjou, they had already condemned to death Conradin of Swabia and are said to have poisoned Thomas Aquinas (*Purg.*, XX).

These are the forces which Dante would have checked in their mysterious action had he remained at the seat of Government. They are those forces which are opposed to the action of initiation impulses upon the historical and social planes.

The Seven Successors. It is a law of history that certain profound transformations can come about only through continued action in time. The seven Kings of Rome were needed for the preparation of the Republican virtues. Thus also Friedrich Hausler points out how the action of Pope Gregory VII for reforming the Church developed, with perfect continuity, through certain Popes who preceded him (to whom he had been Counsellor), through his own action as Pope, and, finally, through other Popes who came after him. It was always the spirit of Gregory that was working in them. Thus we are able to imagine that the spirit of Dante would have worked through his successors for the renewal of the science of government and for a healthier political life.

Dante's Political Ideas. Just as Gregory VII refused every interference by the Emperor in the choice of Bishops, so did Dante refuse every papal interference in the Empire. In his *De Monarchia* he "proves that the Imperial authority proceeds immediately from God and not through any of His Vicars, as the clerics seem to wish" (Boccaccio). This doctrine of Dante's is far more than a personal idea or an expedient for obtaining a political balance; it is based upon Dante's whole theological conception. Luigi Valli sums it up in the following way:

"Original Sin, in violating the *originalis justitia*, that is, the first law given to the mind and actions of man (the tree of Adam), rendered man infirm in contemplative life and in active life, inducing in him that which St. Augustine called *ignorantia* (the impossibility of *scire recte*) and *difficultas* (the impossibility of *recte facere*). Grace wished to save and redeem man, and for this purpose it worked with those powers that Dante, in his *De Monarchia*, calls the two *rimedia contra infirmitatem peccati* (*Mon.*, III, IV, 14).

These two *rimedia* are, for Dante, the uncorrupted forces of the Church and of the Empire. They are represented in the *Comedy* by the symbols of the Cross and of the Eagle. One understands their importance through the following considerations, which permit us to insert them within the laws of spiritual-historic evolution:

"It is a law of evolution that certain human faculties are at one time exercised instinctively in perfect union. Later, they separate, are exercised by different people, and their common origin is forgotten. In fact, their contrasting qualities become accentuated. In this manner, men learn to use them more consciously. Still later on, they may unite in a state of higher consciousness.

"So it has been for religion, art and science, which in the third post-Atlantean epoch proceeded from the Mysteries and from initiation-consciousness, gradually becoming differentiated until they achieved complete separation in our own fifth post-Atlantean epoch. In the future, upon the foundation of a Spiritual Science, they will be able to re-unite in a higher unity through the individual victories of men who follow the way of initiation." (See Rudolf Steiner, *West-East Aphorisms*.)

Rudolf Steiner also tells us of another schism of states of consciousness, which came about in the third post-Atlantean epoch. From the two sons of David, Solomon and Nathan, proceed the regal and sacerdotal lines of the stem of David. Before David, these two faculties were united. Zarathustra united in himself the kingly and priestly activities of his people. Moses was the inspired one, the prophet, but also the guide and upholder of the ancient Hebrew people.

From David begins the division of blood and of spirit, inasmuch as the spiritual impulses were, at that time, inherited with the blood.

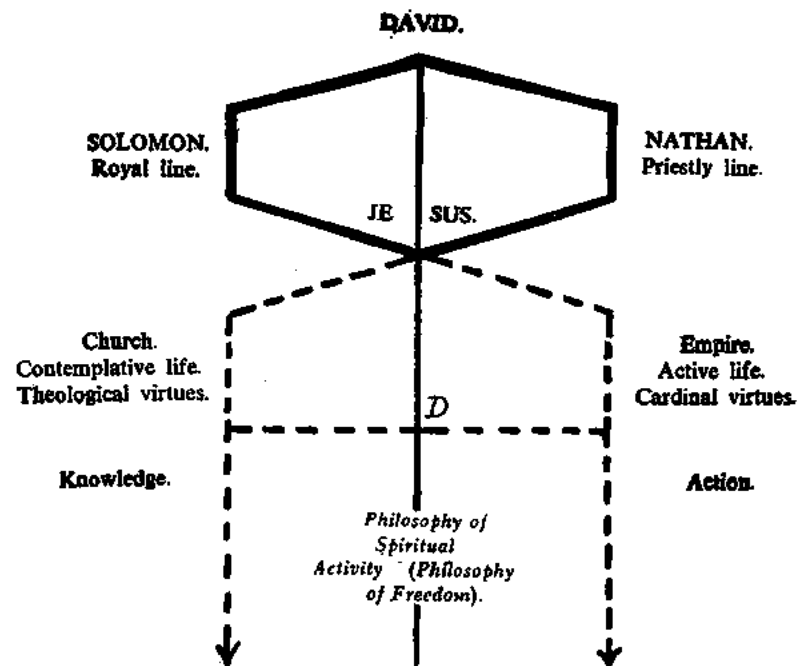
And in fact, from then onwards, priests and kings have ever more distinct activities, often in contrast to one another.

Rudolf Steiner teaches us—as indeed also appears from the Gospels—that the regal (Solomonic) line and the sacerdotal (Nathanic) line converged and united in Jesus, the bearer of the Christ. The importance of this fact cannot escape us. Nothing was fortuitous in the events which prepared the mystery of Golgotha. It was always cosmic laws manifesting themselves—mysteries evolving on the plane of history; nor must we overlook the fact that the union of the regal and sacerdotal streams in the same person was needed in order to give the Christ the physical basis for carrying out His work of redemption.

These two impulses, kingly and priestly, were not exhausted with the Mystery of Golgotha. They continued, no longer as hereditary currents but as spiritual impulses. In the course of history they appear, sometimes in purity, sometimes in decadence, always in metamorphosis. Historians and artists have often sensed this, and this duality appears from the titles of their works. For example, Emil Bock in his book *Cæsars and Apostles*. In the *Cæsars* was living—in decadence—the regal impulse. In the *Apostles*, in purity, the sacerdotal one. In Koestler's book, *Yogi and Commissar*, we find in the *Yogi* the luciferic degeneration of the priestly impulse; in the *Commissar*, the ahrimanic degeneration of the kingly one. Within the dualism of Church and State there lives, in a more or less decadent form, the continuance of these impulses.

In the Middle Ages, according to Dante's conception, there lived in great purity the conviction that the Empire and the Church were the two pillars of human redemption. This grandiose conception is often misunderstood because, in speaking of the "Church," people think of the Church as it was, with its corrupt Popes, and in speaking of "Empire," they think of the inefficient and ambitious Emperors. For Dante it was quite another thing. He very definitely saw the corruption and inefficiency of the human representatives, but he felt the importance of the priestly and kingly principles, and he went back to the Archetype. We modern men can understand it only if we know what Dante merely divined; if we look upon the kingly and priestly lines which converged in the Christ through the ancestors of Jesus. For Dante affirms in his *De Monarchia* that Empire and Church equally proceed from God and that original sin may become 'limited' only by the converging work of these two impulses.

If we draw a chart of what has been described, we shall see, starting from David, the two lines, the regal and the priestly, which converge in Jesus, and how these continue in spiritual form after the Mystery of Golgotha: The Church with its contemplative life and theological virtues; the Empire with its active life and the cardinal virtues—



If the Christ had to reunite the two currents even in His physical body in order to accomplish His work of redemption, then those disciples who seek initiation in the Christ sense must reunite the two streams in their consciousness. In doing that, they achieve freedom. The whole of the *Purgatorio*, from the 1st to the 27th Canto, is none other than a way of purification, a catharsis leading to freedom. In the first Canto we meet Cato of Utica in the guise of the Guardian of Purgatory—Virgil obtains permission from him for Dante to proceed further by presenting him to Cato as a seeker after freedom:

Now on his coming look with gracious eye
He seeketh freedom, that so precious thing
How precious, he knows who for her will die.

(*Purg.*, I, 70-72.)

And, the catharsis accomplished, Virgil pronounces, turning to Dante, the grand words:

Expect from me no word or signal more.
Thy will is upright, sound of tissue, free:
To disobey it were a fault; wherefore
Over thyself I crown and mitre thee.

(*Purg.*, XXVII, 139-142.)

which signifies: "Thou hast united in thyself the contemplative life and the active life, the priestly current and the kingly one: Thou art free." (D, in the chart.)

Rudolf Steiner, too, in his *Philosophy of Spiritual Activity*—which, as his first great book, seems to stand before his subsequent works like a guardian admonishing: "Do not hazard yourselves within the spiritual worlds unless you have first gone along the way I have pointed out"—uses an expression which corresponds philosophically to Dante's image. He speaks of the man who "knows" and of the man who "acts" as of a fatal dualism which causes us to forget the aim to be achieved—i.e., the man who acts by virtue of knowledge (*Phil. Sp. Act.* in the chart).

These are the eternal values which we find in the *Divine Comedy*. Historically we see that the balance between Church and Empire was broken by Constantine's gift:

Ah, Constantine, what evil fruit did bear
Not thy conversion, but that dowry broad
Thou on the first rich Father didst confer!

(*Inferno*, XIX, 115.)

Dante saw in this happening a fount of endless woe because, owing to the Church having usurped belongings and offices belonging to the Empire, an unbalanced situation had come about, leading to quarrels and corruption.

In the meantime, the Holy Roman Empire has disappeared, and its disruption has caused the Church to substitute herself more and more as the unique universal and supernational authority remaining in the world. "There is still the Catholic Church, but there is also the *Divine Comedy*"—affirming the necessity of the Cross and of the Eagle, of the priestly impulse and of the kingly one, and showing how the political activity of the Church is a well-spring of corruption for the world and for the Church itself.

Looking towards the future, it must be stated plainly that no one with a certain sensibility for historic evolution can desire the return of the Holy Roman Empire. That Empire is dead, and there remain only certain imperialisms. The formula, "by the Grace of God," used by Sovereigns, has become a phrase permitting us to hark back to the Divine origin of kingship as does a skeleton to the living being who formed it. But one does not give life to a skeleton, nor can we revive the Empire in which Dante believed.

The impulse of Dante—"who assigned the limit of their power to the two swords," as is written in his epigraph—lives again to-day in the conception of the Threefold Social Order, revealed to the world by Rudolf Steiner. He assigns limits to the spiritual life, to political authority, and to the economic activities which have now joined the other two as a factor in social life. What we call

"imperialism" (political, economic, ideological) is always caused by the predominance of one power over another. Dante was our teacher in distinguishing them and wishing them to be separate.

* * * *

Is it possible to say something about what might have arisen in Florence had Dante not been exiled, on the basis of facts and historic laws and without giving ourselves up to the play of fantasy? Maybe it is.

It will be best to begin by considering that city which represents by itself, together with its destiny, a kind of historical mystery: ROME. In the very name some of the mystery stands revealed. The anagram of ROMA is AMOR. Some might say this is chance. A very singular chance, though, especially considering that the founding of a city such as Rome has a mythical origin and that its name was certainly not given haphazard, but imposed by initiates of ancient Mysteries. According to John Lydus (490-565 A.D.), "Rome would seem to have had three names: (1) An esoteric one, pronounced only by the Hierophant in the Mysteries: AMOR. (2) A hierarchic name: FLORA. (3) A political name: ROMA." (See Ernst von Lisaulx, *Die Namen Roms*, cited by Karl Heyer.)

One only of these names has been transmitted to us historically, the one connected with the strength and the political power of Rome.

What was Rome for Dante? He speaks of it as the world's centre. Was Dante, perhaps, an Italian nationalist, an imperialist? None of these things. Rome, for Dante, was the seat of the Roman Apostolic Church, which represented for him, in a universal and supernational form, the tradition of the priestly stream. It was also the ideal seat of the Holy Roman Empire, which, in the same way, represented for him the tradition of the kingly stream. In Rome there would have had to be accomplished, for the whole of humanity, that work of redemption which Dante described for the individual in the words: "Wherefore over thyself I crown and mitre thee."

"Roman" signifies for Dante "universal and supernational." Had it not been so, there would be no sense in the words spoken by Beatrice:

Shalt thou an everlasting citizen
Of that Rome, whereof Christ is Roman, be.

(*Purg.*, XXXII, 101-102.)

"That Rome" cannot have a national or political character. It has, without any doubt, a hierarchic character: it is the one which an ancient tradition called "Flora."

What does the name "Flora" tell us? It evidently points back to the gnostic stream. By the name "Flora" (flower) or "Rosa" (rose) was meant that higher knowledge which was not enjoined

with the authority of a commandment, but germinated within the soul as a flower, in the light of grace. Even if the truth were the same, the experience was entirely different. The first was accepted as a law which must be obeyed; the second was born in freedom, in that freedom which generates love.

In gnostic poetry, of the East and of the West, from India to Provence, the expressions "Fiore" and "Rosa" constantly reappear. For example, the *Roman de la Rose* in France, and Dante's poem, *Il Fiore*. In the symbolic language used by the *Fedeli d'Amore* (Love's Faithful Ones), the truth imposed by the authority of commandment used to be called *Pietra* (stone), and that which germinates in the soul of one who both knows, and wills to cultivate it, "Fiore." (See Valli, p. 146 foll. and p. 378 foll.)

Had Dante not been exiled, had he upheld Florence with those faculties which later flowed into the Divine Comedy, "Fiorenza" would have become a "Flora." In these names lies destiny, and not chance. This "Flora" would have served to counterbalance that "Roma" in which Church and Empire had degenerated: since, from being instruments of redemption, they had become instruments of power. Not for nothing does Boccaccio say of the brief experience of Dante's government: "In him all the public faith, in him every hope, in him the sum of things Divine and human, seem to have reposed."

The question often expressed, whether it is better for a statesman to be loved or feared, finds an easy answer. In a "Flora" it is better to be loved; in a "Roma," better to be feared.

Had Dante, in Florence, been able to give life to "Flora," he would have laid the foundation for the ultimate aim of Rome, for its resurrection in AMOR. This seems to me to be the mystery of Rome, which is also, in part, that of humanity.

But Dante was exiled, and history took another course. Florence was to be the cradle of the Renaissance and to give the world such a flowering of beauty as should seem a miracle. But she was also to be the cradle of a man who has been, spiritually, Dante's antagonist: Machiavelli. Mazzini said that it was a calamity for humanity that Machiavelli should have prevailed over Dante. It is hard to imagine a greater contrast than that between these two men.

Dante felt within him the eternal laws of history. He knew that—to use an expression of Rudolf Steiner's—the healthy impulses of social and political life come from beyond the Threshold. He was as the captain of a ship following his course by gazing upon the stars in the sky. But this state of consciousness was destined to disappear. The Albigensians, the Cathars, the Templars had been destroyed; Dante had to go into exile; "Love's faithful ones" ended up isolated and dispersed. Their teaching, their doctrine, disappeared from the plane of history and was preserved in the secret of the Rosicrucian stream, while awaiting the one who could render it accessible to humanity, in a new form.

Machiavelli had no idea of all this. He was ignorant of the eternal laws by means of which a State can be governed. He was an empiricist who drew up his laws out of experience. He observed the life around him, and in it he found violence, corruption and betrayal. And success seemed to smile upon the person who applied these with the greatest decision. Thus, without willing it and by describing simply what he saw, he became the theorist of, and apologist for, the doctrine of Machiavellism. His tragedy was that he had no notion of what Dante knew: he believed that there were no methods of governing other than those he saw around him.

These considerations receive further confirmation from the following known facts, pointing to an ordering of events that it would be difficult to describe as mere "chance."

Rome had a double origin through its two founders. One of them was Aeneas, son of Venus and Anchises. He is portrayed carrying his father Anchises on his shoulders and leading his son Ascanius by the hand, and rescuing them both from burning Troy. He rescues the healthy element in the past and leads it on into the future. He is devout—"pious Aeneas," as Virgil calls him. The other founder of Rome is Romulus, son of Mars and a vestal virgin, born through impious sacrilege. He murders his brother Remus.

Dante often speaks of Aeneas as the spiritual founder of Rome. He mentions Romulus only once, with an expression of the deepest contempt.

Aeneas is the ancestor of the hierarchical Rome, Flora, reflected in Florence; Romulus, of the political, powerful Rome—Rome as a political force.

Some further points may be noted. Florence carries a lily in its coat of arms; Rome, a she-wolf. The patron saint of Florence is John; of Rome, Peter. At the end of the first line of development stands Dante; at the end of the second, Machiavelli.

The fight against Dante did not cease with his death; it went on, and still continues to-day. It continues with the means which have always been used against men who are too great and too much admired by the general public to be attacked overtly. Their names are extolled, but their genius is countered by rendering it obscure. In this case, a fairly simple thing to achieve, because Dante's genius, his real intentions, do not reveal themselves easily to the reader. The demons hide in darkness, and the blessed make themselves invisible by wrapping themselves in blinding light. Dante's doctrine is hidden under a veil of rare poetic beauty. Many allow themselves to be seduced by this beauty and proceed no further.

One needs to remember, though, that Dante wrote his "Divine Comedy" *non ad speculandum* but *ad opus*: not for æsthetic delight but in order to give a moral impulse for action (John, p. 3). Very few, to-day, read Dante out of love for that which he himself loved and for which he lived.

This seems to be Dante's second exile—sadder and more painful than the first. And it is really tragic that fundamental books, aimed at fostering understanding of Dante, such as those of Valli and John, should not have gained the renown they deserve. Official criticism opposes or ignores them, and should a student at one of our (Italian) Universities wish to get inspiration from them for a degree thesis, he would risk having it turned down.

When will Dante's exile end?

* * * *

In publishing the foregoing, I am well aware of having set down only some notes, certain points which ought to be further developed. My hope is that, even in this limited form, they may be of some use to those readers who are interested in these problems, who love Dante and feel themselves bound up with his destiny.

Translated by Kathleen Raffaelli West.

REFERENCES

- Rudolf Steiner: Lecture of 23rd October, 1915. Various works.
 Giovanni Boccaccio: *Trattatello in laude di Dante* (Little Treatise in Praise of Dante).
 Robert L. John: *Dante* (Springer-Verlag, Vienna).
 F. Hausler: *Die Geburt der Eidgenossenschaft aus der Geistigen Urschweiz* (Verlag Benno Schwabe, Basle).
 Luigi Valli: *Il linguaggio segreto di Dante e dei Fedeli d'Amore*.
 Karl Heyer: *Beiträge zur Geschichte des Abendlandes* (Manuscript).

THE FUTURE OF THE ENGLISH LANGUAGE

Adam Bittleston

THERE is an old story which in different countries takes different forms. Told by Geoffrey of Monmouth and others as an historical event, it became the theme of *King Lear*. As a fairy story it appears in Germany as *The Princess at the Well*; in England, in one of its forms, as *Cap O' Rushes*.

Three daughters of a kingly father are asked to express their love for him. The first two do so in extravagant terms; the third will only say, in Shakespeare's words:

"Good my lord,
 You have begot me, bred me, loved me: I
 Return those duties back as are right fit,
 Obey you, love you, and most honour you."

Or, in the fairy story:

"I love you like salt."

The father drives his third daughter away with bitter anger; to him her words mean nothing.

In this story part of the mysterious tragedy of human speech is contained. Not only do we fail to understand other languages than our own; within the same language, we fail to receive each other's meaning, to recognise the full human reality behind the other's words. This failure is deeply interwoven with human history; but we can see it happening in a particularly critical sense at the present time.

Far into the past it was already a problem how to find words by which some part of the wisdom of the Mysteries could be told outside, to help human beings to find their way through life. There has always been the risk of arousing anger by saying something that would not be understood; and yet sometimes this risk had to be faced. The third princess, in the fairy-story version, uses Mystery language, speaking of Salt as it was understood by the Rosicrucians; and she meets what is described in the Sermon on the Mount: "Cast not your pearls before swine, lest they turn and rend you." Those fully satisfied with the earthly consciousness, looking only for what will help the earthly mind to fulfil its own aims, may well reject with intense irritation a spiritual knowledge that is born of suffering. And so the princess must go into loneliness. In the Grimm story she is described as weeping tears that turn into pearls. But she was not wrong to have made the attempt, for eventually she is understood.

Cordelia uses ordinary human words to express the personal mystery of her own feelings; and is just as violently rejected. What we want from another human being we can understand without

leaving the comfortable familiarity of our own minds; but to understand what the *other* really thinks and feels we have to venture out into the cold, into the storm—and Lear is not yet ready to do this. For each of us, another human mind is a supersensible reality. And as human minds, with developing individuality, are coming to be less and less only the products of a particular status and environment, each human being will present us more and more often with the problem of listening to a mystery which we have still to learn.

In all this, the development of human language plays a significant part. For language is not simply a convenient code, which we may or may not be able to decipher. It had from the beginning an *inner* relation to all that it described. To pronounce the name of a person or thing was at the same time to possess something of their innermost being. Language was a ladder that led directly back to heaven. Only through many ages, and many changes, did language come to be regarded as if it were a trivial formula for the appearances of things, and no true revelation of their Divine meaning.

Plato has described in his dialogue *Cratylus* how it is possible to dispute between these two ways of regarding language: those who still see its ancient divine wonder on the one hand, those concerned only with its practical, conventional, apparently arbitrary usefulness on the other. The last claim that language is arbitrary, since apparently any sequence of sounds can be chosen for any meaning. The first say that there is always heavenly wisdom behind the choice of particular sounds. Both can bring forward powerful examples. But for good reasons the argument is inconclusive. It is just as when two people discuss a man they know, and one continually brings out his faults and weaknesses, while the other only remembers the good fundamental purposes of his life.

Earthly language, like earthly man, lives in the tension between reality and illusion. When Cordelia speaks to Lear, or a poet to his readers, or an Apostle to the struggling, uncertain soul, language is both a miraculous help and a baffling hindrance.

* * * *

We can try to look at particular languages from this point of view. And in the English language to-day we meet problems more acute in this respect than there have ever been before. Rudolf Steiner, out of his profound, intimate insight into the history of language, sometimes expressed this drastically. If such remarks seem indigestible, we should not turn and rend him. They are never meant to *finish* the subject—but to call our attention to some part or other of a problem deeply rooted in man's history, which we can only gradually hope to grasp.

For example, in a course of lectures on social and educational problems (Stuttgart, 13 July, 1919) Rudolf Steiner said that the terms of the Versailles Treaty were unclear because the operative

text was not in the former diplomatic language, French, but in English. And he goes on to say that English has the peculiarity "that in it everything which should be comprehended spiritually cannot be expressed immediately, as is given, if one takes the language only as it is there to-day." And later: "In the Anglo-American language there is no longer that living relationship of the human soul with the element of language which existed in ancient times. Language has separated itself from the human being; it becomes, as language, abstract. If one hears English spoken, certain turns of speech, particularly sentence-endings, always give the impression of a tree in which the outermost shoots and twigs of the branches have withered. The language allows the soul element which filled it to die away."

Our first reaction to such statements may be an indignant protest that modern English is in fact one of the richest and subtlest means of human communication that have ever existed. But further thought may show that this does not really contradict what Rudolf Steiner says. Just because its *own* life as language has ebbed, modern English may be amenable to extraordinarily varied, subtle, and individual uses. If we take as an outstanding example the English poetry of the last forty years, we can see how violently the normal habits of the spoken or written language are transformed in order to provide an instrument for each poet. "If one takes the language only as it is there to-day"—poetry could not be written at all. Certainly poetry has always used something grander and richer than ordinary everyday speech. But what it has used has been recognisably close to the source from which the general life of the language flowed. Now it is as if the poet had to breathe a quite individual, characteristic life into something that would otherwise be empty.

Or we can take a single example from another field. Recent tests showed that very few average young people to-day, even including those who have made active efforts to understand what Christianity is, can find in the word "Grace" any definite meaning. With many other words that were central in Christian teaching, it has become like a piece of empty nutshell, an indication that a kernel once existed.

In ordinary life we can observe how many things we say do not mean much. Perhaps we are only giving reassuring signs that we are going to behave normally, however strange our inner weather may have become. Or when we do want to make a signal from our innermost selves, only quite conventional and apparently irrelevant words may come to our lips.

And here we are approaching the heart of what Rudolf Steiner has to say about the English language. He does not regard the process of "withering", of which he speaks, as a misfortune for the world; on the contrary, it is very necessary that English, which tends to become the nearest we have to a world language, should

be in this condition. In the same lecture, he says that this is a thoroughly healthy thing for humanity. "In the future, it will not be possible to reach mutual understanding in English without developing an immediate, elemental, intimately felt understanding between man and man, which does not itself live in what is spoken, but will give to language a new life." Something like a true thought-reading must be achieved; what is *said* must be regarded only as a signal, calling us to attend to the other's thoughts, which he cannot fully express. This will call for a new attentiveness to the other's invisible being; it will be healthy that we have to make the effort to meet him on a level higher than that of spoken words. This effort is something that all mankind should learn to make; the need to do so will be particularly evident wherever English is spoken.

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We may be able to deepen our understanding for this if we consider the mysterious place that English has in the history of languages. A general picture of those language groups belonging to the Indo-European family, which were significant for Europe in the first millennium B.C., can be drawn somewhat as in the upper diagram (opposite).

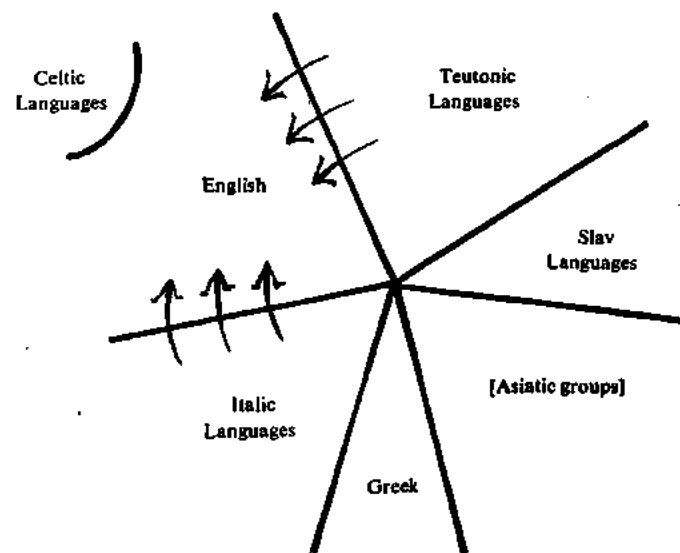
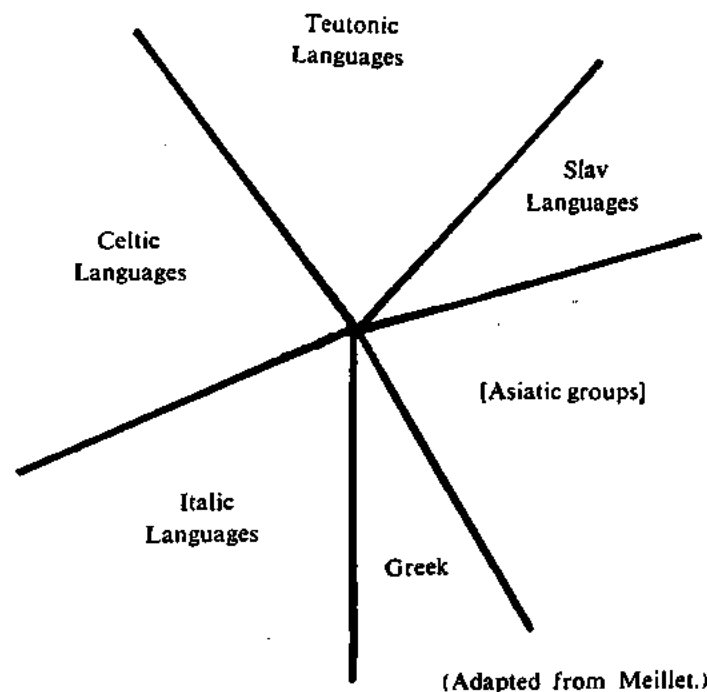
Erratum. The third paragraph above should read: "... a far wider contact between the Teutonic languages and those deriving from Latin came about than would have existed otherwise."

(opposite):

English developed in the space left by the retreat of Celtic languages, itself built up almost entirely from Teutonic and Latin elements—a meeting of languages in character and history very different from one another, the noble intermediary having withdrawn.

We may regard this simply as one of the accidents of which history seems to be made—or ask for reasons. Why did the Celtic nations go under? It is not an easily answered question on any level. Much fascinating work has been done on the rise and decline of civilisations, and their relationship to one another; but in the end there does not seem to be any tangible answer to such questions as this. Why could not the Celtic peoples have adopted what was useful in Roman civilisation for purposes of organisation and defence, and retained their own languages and traditions? To a considerable degree the Teutonic peoples were able to do this.

So long as our vision is limited to the external world, we cannot find real answers. Just as the unity of a man's life is truly to be found only in a supersensible being, so the unity of a nation or a civilisation can be found only in the Spirit that inspires it. And such Spirits, like human individualities, go through processes comparable to incarnation, and the withdrawal from incarnation; entering, and withdrawing from, the organism of a nation or



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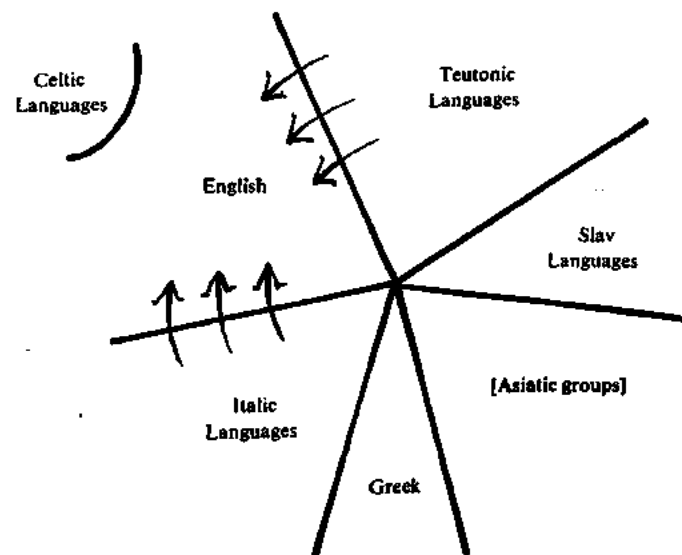
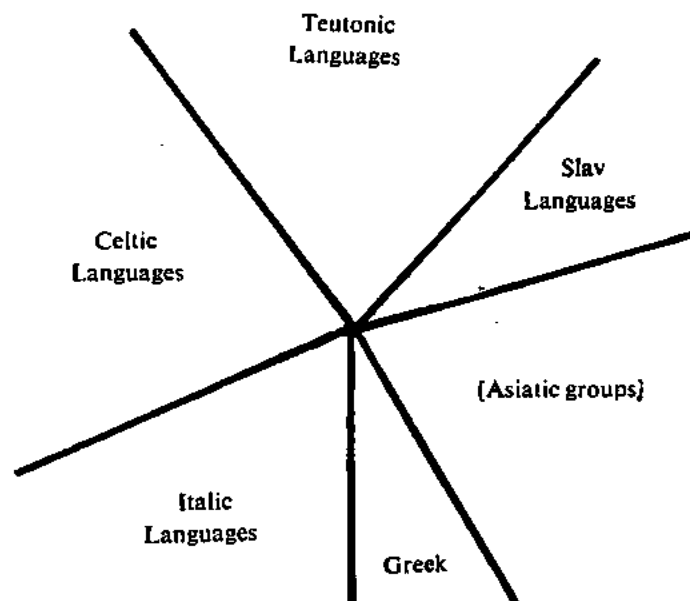
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Through the defeat and submergence of the Celtic-speaking peoples, who had reached far across Europe (and indeed into Asia Minor), a far wider contact between the Teutonic languages and otherwise. What happened can be pictured as in the lower diagram (opposite).

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civilisation, just as we put on and lay aside the earthly physical body.

When he spoke particularly of this, in his lectures at Oslo in 1910, Rudolf Steiner especially directed our attention to two such Spirits: one inspiring the Greek civilisation, and one standing behind the Celtic peoples. Both these Beings, he says, went through a great transformation of the way in which they worked, in order to serve the deed of Christ.

The Spirit of Greece ceased to work directly through the Greek nation and the civilisation depending on Greece; this Spirit became instead the guiding Being of exoteric Christianity. The Christianity which spread widely through the world—using at first indeed mainly the Greek language—and which established itself firmly in Europe, received inspiration from this Spirit, who served Christ by giving form to the thinking and the life of the Christian Church through the centuries. Greece itself declined in political and cultural influence because its guiding Spirit had taken so wide a task—which continued long after the Greek language ceased to be used in Western Christendom, though every age found fresh understanding through the Greek New Testament.

Meanwhile the Celtic Spirit had gone through what we may regard as a still more drastic change in the manner of his work. At a time when Greece had already flowered, the Celtic peoples seem still young, with great dormant potentialities. But at this stage the Celtic Spirit, who had given them their ultimate unity, undertook a new task. He became the guiding Spirit of *esoteric* Christianity, working not through wide masses of people but among little scattered groups, to deepen among them knowledge and experience of Christ in ways that could not be those of the Church in general—groups thought of as heretical, or those who inspired the tradition of the Holy Grail, or the true Rosicrucians.

The Gospels transcend the distinction between exoteric and esoteric; and they themselves indicate the kinds of knowledge which belonged to the esoteric realm by describing little groups of people to whom it was entrusted. The Star-knowledge possessed by the Magi; the knowledge about destiny and reincarnation given to those disciples who share in the Transfiguration; the knowledge about the future of the world given to a similar group of disciples early in Holy Week—all these are esoteric, even if some words about them are there for all to read. And the Spirit who was formerly the leader of the Celtic peoples now comes to be the protector of little groups which can rightly value and preserve such knowledge, or find it anew when it has been lost.

This is a most wonderful key to European history. It helps us to understand the defeat of the Celtic peoples, first by Rome, then by the Saxons and their successors. It illumines the flowering and the apparent failure of what Toynbee calls the "abortive North-Western civilisation," the Christianity of Ireland and Iona. It

explains the fundamental continuity, through the Middle Ages and on into modern times, of movements widely scattered in time and space, which can often do little to make their purposes comprehensible or acceptable to the world around them.

Without the deed of the Celtic Spirit, sacrificing an evident historic mission for the sake of a more hidden one in the service of Christ, there would have been no English language as we know it to-day. If we take this thought with full weight, we may begin to see certain consequences following from it.

English results from the fusion of languages that were at a different stage of development, and had been subject to very different influences. Linguistically, Anglo-Saxon has gone through a further development, the first consonant-shift, which Latin and Greek have not made. But culturally Greek and Latin are of course infinitely richer. And the origins of their culture lie in Mysteries, which were for the most part outside Europe itself. When speaking to Waldorf School teachers about the history of language, Rudolf Steiner said of Greek and Latin: "Through all sorts of foreign influences, which have worked in another way than in Europe—influences from Egypt, from Asia, these languages have simply become the external clothing for a culture brought to them, largely a Mystery culture. The Mysteries of Africa and Asia were brought to the Greeks, and to a certain extent to the Romans, and the power was found to clothe the Mysteries of Asia and the Mysteries of Egypt in the language of the Greeks and Romans. Thus these languages became external clothing for the spiritual content that was poured into them. This was a process through which the languages of Middle and Northern Europe have *not* passed . . ." (Stuttgart, 29 December, 1919).

The Anglo-Saxon language had qualities of soul, a certain warm maturity; the words of Latin origin that streamed in, becoming a flood in the sixteenth century, brought with them echoes of Egyptian Mysteries, and a long history of legal and ecclesiastical organisation in the Roman Empire. Was there any power that could ensoul this mixture completely, and make it a clear medium for spiritual truths?

We come here to great riddles. Looking back, we see this language developing in the space once occupied by the influence of the Celtic Spirit. If it is to be fully ensouled, the help of this Spirit is needed. But he is at work in a realm *beyond* that of ordinary human language, in the guidance of esoteric Christianity. He is guarding a knowledge which cannot be fully expressed in ordinary speech—particularly at the time of which we are now thinking, the sixteenth century.

But there is a great teacher, concerned with the life of esoteric Christianity, who incarnates more frequently than ordinary individualities, Christian Rosenkreuz. Directly and indirectly, during the second half of the sixteenth century and the early years of the

seventeenth, he inspires qualities of soul in the English language, through which the diverse elements can be fused into a transparent instrument for the spirit.

In the polemical religious writing of the time language was misused to whip up indignation, and if possible to stun the opponent by sheer weight of invective. Each writer tended to become the prophet of his own self-righteousness; and the element of tranquil, genuine observation was in danger of being trampled to death among the sects. Those influenced by Christian Rosenkreuz were concerned to rescue this element, by transcending in one way or another the religious divisions of Europe. Thus in Shakespeare's work a world of strongly-marked, widely varied human beings appeared, not constructed to fit neatly into the categories of "righteous" and "sinful," and whose author did not seem to be arguing any kind of a case. And the Authorized Version of the Bible rendered the Hebrew and Greek originals scrupulously in a form which did not serve any sectarian purpose, but sought to narrow as little as possible the fullness of their meaning. Behind the Version stood men who shared Richard Hooker's profound desire that Christianity should not be thought of as imposing a single pattern of mind and conduct on man, but as including and sheltering a wonderful diversity.

Hooker himself had written, on subjects usually treated in the most arid polemical style, in generous, humane English, which illustrates in yet another way how the language received a new inspiration at the time. As his work is in comparison so little known, a brief example may be given. Hooker is here defending the use of music in churches:

Touching musical harmony, whether by instrument or by voice, it being but of high and low in sounds a due proportionable disposition, such notwithstanding is the force thereof, and so pleasing effects it hath in that very part of man which is most divine, that some have been thereby induced to think that the soul itself by nature is or hath in it harmony. A thing which delighteth all ages and beseebeth all states; a thing as seasonable in grief as in joy; as decent being added unto actions of greatest weight and solemnity, as being used when men most sequester themselves from action. . . . In harmony the very image and character even of virtue and vice is perceived, the mind delighted with their resemblances, and brought by having them often iterated into a love of the things themselves. For which cause there is nothing more contagious and pestilent than some kinds of harmony; than some nothing more strong and potent unto good. (*Ecclesiastical Polity*, V, xxxviii, 1.)

In the eighteenth century the danger to the language came no longer from religious narrow-mindedness but from a prosaic formalism, which had Hooker's dignity without his heart. And a second time it was defended and enriched. This was done by men who felt their kinship with the Bible and with Shakespeare—but also with those of their contemporaries all over Europe who tried to serve true Imagination. Men who saw that real knowledge is a

creative activity, using all the powers man has, not only his sense-perception and his reason, became something like an informal European society, with manifold shared enthusiasms and energetic dissensions—a movement much too practical, earnest, and conscientious to be described simply as "Romantic." Through Goethe, Schiller, Novalis and many others, the German language achieved its first great flowering, comparable to that in Shakespearean England. And, often in close contact with German idealism, though in reaction against its more ponderous products, Wordsworth, Coleridge, Shelley, and Keats made English the instrument for music of a new subtlety and complexity, even when they intended to be simple.

While in general the traditional religious life on the one hand, and rational understanding of the visible world on the other, had fewer and fewer positive, living mutual contacts, these men did all they could to build their thoughts into a golden bridge between earth and the spirit. There streamed into them inspirations from a realm where, as Rudolf Steiner has described it, heavenly powers were making great preparations, so that spiritual knowledge should be achieved on earth, during the age that was approaching, in abundance and daylight clarity.

Thus Rudolf Steiner, as the first great teacher of this spiritual knowledge in the twentieth century, could link his work with Goethe's, and use much of the German Idealist vocabulary, with increased precision and simpler construction. Speaking and writing with a characteristic austerity and selflessness, he could make German a wonderful means of expression for Christian spiritual knowledge. Very much that had been esoteric he could make public, guarded by the language he chose so carefully against misunderstanding and misuse. Nevertheless he had to meet bitter ridicule and every kind of hostility from those whom Blake called "the ignorant hirelings at court and university."

If we read Rudolf Steiner's work in English translations we are generally made aware, in spite of all the conscientious work that has gone into these, that the clothes do not fit. Of course the German does not fit altogether either; but a master hand has been at work with the material he received from masters.

* * * *

May it not be that English still waits for the full use that can be made of it, until towards the end of this century another great wave of spiritual teaching pours into the world? Once English was threatened by a fanatical religiosity, and later by a pedantic rationalism; now the dangers are greater still. Innumerable anonymous voices, in every continent, use English for commercial and political purposes. Behind such words there may be no discoverable person who means what he says; only someone who knows what effect he is paid to produce. Where the transmission of genuine meaning is intended, as in scientific periodicals, there may be an

attempt to deprive language of any human character for the sake of appearing objective; the kind of formulation is sought for (and this may develop further in the near future) which could be fed with the minimum of alteration into an electronic "brain." On the other hand, an extreme of subjectivity can be let loose in the arts, where instincts can express themselves without any necessity of conveying a definite meaning at all.

Such tendencies all drag language into sub-human realms; and very great impulses are needed to counter them. They are indeed held in check by human common sense; but all the time they are exhausting words, knocking them about, reducing them to worthlessness. Those with insight to-day already point out that we are entering the most critical period in the history of the English language, in which the heritage of the past can be lost, and, for the great majority of those who speak English, communication on the deeper levels may break down. But to turn back, and deepen our appreciation of the past, though this is necessary, is not enough.

The first great step into the future is to strengthen, through the many disappointments that must come, a mutual understanding *beyond* the level of language, as Rudolf Steiner has described it. We have to accept the immense, the awe-inspiring differences between our minds. We need to build up an atmosphere of unhurried reverence for and interest in one another and in the matter that is being considered, restraining ourselves as far as possible from immediate assent or dissent. What matters first is to *see* each other's thought, free of any words. A half-born imaginative picture, a swift clear dream, moves in the other's mind; sharing it with him, we weave in spiritual light, from which words receive real meaning.

The attempt to do this is a training in selflessness which prepares man for the realm of Christ. There is the temptation, for all who speak or write often, to fall too much in love with their own thought-processes. And these then hinder us. The patient and active listener has more freedom to feel, wherever a real meeting of minds is going on, the great presence of Christ. And it is through His presence that language can be redeemed.

Wherever real Christian sacraments are celebrated, with selfless speaking and hearing, something of this redemption happens. Those concerned with the sacraments given through Rudolf Steiner's spirit-illuminated power to the Christian Community know this, with whatever language they are dealing; though the problems of translation may here be at their acutest. But what lives at such special moments must work into all the regions where human mutual understanding is needed.

Interwoven with human history, there work the souls who have shared deeply in the development of Platonism, both in its original and in its Christian forms. They are among the greatest lovers of thought, and artists in thought. If we look on the one hand at the development of the modern world, and consider on the other hand

the picture of human history given by Rudolf Steiner, we may be led to think that some of these souls, within the coming century, may be concerned, with others more Aristotelian in character, in a renewed consecration of the English language—through which even trivial words will receive a flame that fits them to be bearers of a new revelation of Christ.

Externally our language may indeed appear, by the end of this century, a dry, brittle tree. Words may seem at best capable only of describing external facts; when they attempt to express inner things, this may only seem to open up fathomless uncertainties. But there will be those who can observe the flames that glow along branch and twig, a fire that does not destroy, but gives the dry words infinite fresh life.

No genuine word is too external or too trivial to receive this power of redemption. Perhaps a very strange-seeming example may be ventured. Even such apparently neutral, colourless words as the conjunctions once had qualities of soul, warmth and cold, about them. And when language is used in the future in the Christian sense here meant, they will begin to acquire these qualities again. We may take the simple word "and." There are worlds of difference where it is used in the sense of dead accumulation, thing upon thing without sense:

"To-morrow and to-morrow and to-morrow . . ."

in the mouth of Macbeth or of a cynical modern—or if we hear with our whole being the word of Christ:

"I am the Alpha and the Omega."

In *all* its uses, the word "and" can convey something of the faith that the people and events of the world complete one another, that there is harmony and meaning in bringing them together—or that the whole business, by which we are linked in time and space, has no real sense. Every word, and words in their relationships to one another, can be consecrated.

Perhaps we who try in our different ways, with something of spiritual knowledge alive in our minds, to speak or write English to-day, might compare ourselves to charwomen in a palace that has been left almost empty, beginning to sweep and dust in preparation for the Court that is soon to come, of which the Ruler asks that He be loved "like salt."

PERCEIVING, THINKING AND KNOWING

Peter Carpenter

Many people who try to gain an understanding of philosophy find so-called "theories of knowledge" a stumbling-block: they are difficult to understand and make for mental indigestion. This article describes an influential stream of contemporary thought which holds that theories of knowledge are not theories about the nature of the world, and hence are not important for understanding the world—a view remarkably similar to that put forward by Rudolf Steiner in his "Philosophy of Spiritual Activity."

PHILOSOPHERS since the time of Descartes have been puzzled by the nature of the physical world and man's relationship to it. Ever since ancient times they have been concerned with this theme, but the particular relationship of man to the world around him which we call "perception" was taken, during the eighteenth and nineteenth centuries, to be the central topic of philosophy.

Historically, this special interest in the nature of perception stems largely from the arguments of Descartes, who tried to show that sense-perception is not a sure path to knowledge of the world; by considering such phenomena as optical illusions and dreams, he managed to persuade himself that one can never be certain that a sense-perception is veridical (true). Doubts about the validity of sense-perception, raised by Descartes, were taken over by other philosophers and became the foundation of many a "Theory of Knowledge," speculative and often ingenious, but founded on doubt.

The train of thought which could lead philosophers to feel the need for a special theory of knowledge which would explain perception, and with it the nature of the world, goes something like this:

"We have perceptions which are dependent on our bodily organisation, and in some sense of the word 'inside' are inside us. They tell us something about events outside our bodies, about the external world. Evidently these perceptions are not always veridical—they may never be veridical in the sense of giving us a true picture of the external world. The real entities in the external world are hidden from us; we get only partial representations of them in perception. What is the nature of these real entities outside us, which give rise in us to perceptions by which we know—or partly know—them?"

From the time of Descartes up to the beginning of the present century philosophers took it as their main task to attempt to answer

this question, and this they did by analysing the processes of perception by means of which we obtain knowledge of the world. Whether the real entity behind the perception were taken to be matter, or God, or a realm of Spirits, the fundamental character of such theories remained the same; behind the realm of perception lay another realm which determines our perceptions, but is not itself perceived (although it was assumed to have all the other attributes of things which are perceived!).

The constructing of such theories of knowledge constitutes a branch of speculative metaphysics, a discipline in which attempts are made to formulate the fundamental "structure of the world" in such a way that the known properties of the world can be deduced from it. One of the greatest exponents of this discipline was Kant.

In a metaphysical theory of knowledge of this type there will be bounds of man's knowledge, limits set by the metaphysical structure which is envisaged for the world. Students of Rudolf Steiner's *Philosophy of Spiritual Activity* will know that he opposed the conception of the limitation of the sphere of human knowledge, and indeed opposed the very idea of a metaphysical theory of knowledge. He showed that knowledge of the world depends not only on perception, but also on the power to think; while such knowledge is conditioned by limitations of time and space in perception, these limitations are overcome by the universal faculty of thinking, which is not so limited. To talk of metaphysical entities beyond what is perceptible would be meaningful only if there were some sense in which we could be said to know these entities. *Ex hypothesi* they cannot be perceived: the only other possibility is that they might be experienced in thought, but this possibility is rejected because thinking does not share the "mediated" character of perception. What is experienced in thought is experienced directly; we can give no meaning to the notion of "objects of thought" beyond the actual process of thinking.

For these reasons Dr. Steiner opposes metaphysical theories, and affirms the validity of our empirical knowledge.

* * * *

Logical Positivism, a school of philosophy which flourished between the World Wars, reached conclusions about empirical knowledge similar to Dr. Steiner's, although its arguments are posed more radically, and in a somewhat different form. The basic tenet of Logical Positivism is that there are two sorts of meaningful statement:

(i) Empirical propositions. ("The house next door is painted red.")

(ii) Tautologies—statements whose negations are self-contradictory. ("One tree cannot be both taller and shorter than another one at the same time.")

Empirical propositions are meaningful if there are (at least in principle) circumstances in which their truth or falsity can be directly verified in experience (perception), or if propositions can be deduced from them which are so verifiable. This is called the principle of verification.

Tautologies are true because they state rules for the use of language (give definitions), but have no *empirical* content; they tell us nothing about the world.

If we use the positivists' yardstick to assess metaphysical theories of knowledge, we find that most of the propositions enunciated in such theories are "meaningless"; they neither yield verifiable statements, nor are they tautologies. There are no circumstances under which we could determine whether they are true or false (they tell us nothing about the world), nor are their negatives self-contradictory. An example of a metaphysical statement might be: "The Absolute determines, but does not enter into, Reality."

What is implied in Dr. Steiner's critique of metaphysics is stated explicitly in Positivism; Dr. Steiner shows that there is no means of gaining information about "metaphysical entities." Positivism says that statements about such entities are unverifiable, and therefore meaningless.

The positivist has a pragmatic approach to the validity of empirical knowledge; that is, he does not theorise about how that knowledge can be proved to be true or false, but looks simply for instances where *in fact*, using ordinary criteria for "true" and "false," we make observations of the world which may yield propositions which are true or false. Moreover, we can talk of true and false in this connection only if we have already established criteria for judging whether an empirical proposition is true or false, or—and this is an equivalent statement—if we have established standards for judging the validity of observations.

Thus, for instance, to talk of a visual perception as an illusion makes sense only if we can point to unusual circumstances under which the perception occurs, or can explain it in relation to the known properties of other objects which can be seen—that is, if we can relate it to known norms of valid observation. To talk of visual perception as being an illusion, or to say that we can never know for certain that we are not making an illusory observation, is to ignore the fact that we must know, before we can talk of an illusory observation, what a veridical observation is.

The positivist finds there are no fixed limits to the realm of knowledge, in the Kantian sense that there is a realm of perceptual objects which are "appearances" of "things-in-themselves," and that the "things-in-themselves" cannot be directly experienced. The only meaning we can attach to "knowledge" refers, he contends, to the empirical world which we experience in everyday life, and which is the field of natural science. It follows that, for the positivist, knowledge is, as a matter of fact, limited to the ordinary

senses of touch, sight, hearing, etc., although the possibility of transcending these is not denied. This is stated explicitly in Chapter VI (pp. 118–119) of A. J. Ayer's book, *Language, Truth and Logic* (a book, incidentally, which any serious student of Dr. Steiner's philosophy may be advised to read). For the positivist, the boundaries of knowledge cannot be set by logical or quasi-logical considerations; they are set by experience alone.

The only argument advanced by Ayer against the empirical character of knowledge gained through supersensible perception is that such knowledge, as far as he knows, leads to no empirically testable consequences, and therefore does not satisfy the principle of verification. No Anthroposophist doubts that there are such empirically testable consequences within the realm of ordinary experience. Even if there were not, it would still be logically possible that the statements made as a result of clairvoyant observation could be verified in a supersensible world, and for those without clairvoyance to argue over such statements would have as little point as the argument of two blind men over whether a flower is red or blue.

Most positivistic philosophers are, of course, materialists; even though they may admit the logical possibility of supersensible perception, they are loth to admit its reality. Positivism, however, is not opposed to Anthroposophy in its principles, but rather complementary to it. What is achieved in Positivism is negative—the clearing away of much of the metaphysical rubbish which accumulated particularly in nineteenth-century philosophy. This clearing up was achieved by showing that most of the propositions in metaphysical philosophy could be given no literal meaning.

I do not wish to imply that all previous philosophy was wrong, or that it was without significance; at the very least it testifies to the great imaginative powers of its authors and to a conception of man's relationship to the world which differs considerably from the modern (empirical or pragmatic) conception. The importance of Positivism, I think, lies just in this, that it states in the clearest and most radical form, in the principle of verification, just what is, and what is not, knowledge. It is, indeed, the philosophy of science. Ordinarily this would be taken to mean the philosophy of natural science, but I have tried to show that it applies to the *empirical* world, and the empirical world is limited only by what *in fact* can be perceived and experienced, and does not exclude a genuine spiritual science.

I have put forward this aspect of modern philosophy at some length, because it seemed to me to be important to show the merits of Positivism. In a recent article in the *Golden Blade* (Owen Barfield, 1955) it was implied that this type of philosophy was opposed to Anthroposophy in its principles, and that more significant trends in modern thought are to be found elsewhere; for instance, in Existentialism. I do not wish to present a critique of Existential-

ism, but would only point out that, despite the often paradoxical and apparently profound nature of the utterances of existentialist philosophers, most of these statements have no literal meaning, in the sense that they do not state empirical propositions (they are unverifiable), nor are they tautologies. They may have some significance as imaginative or poetic utterances, but for the student of empirical philosophy they are not of the first importance.

Mr. Barfield, in criticising modern (so-called "analytic") philosophy, does not make clear the difference between Positivism and a more recent school of philosophy known as Linguistic Analysis. Both are "analytic" in the sense that they analyse propositions; that is, they employ a method of categorising and classifying statements into various types so that their significance and meaning (if any) may be made clear. No very sharp boundary can be drawn between the two schools, except that the positivist employs the principle of verification to determine whether a statement is meaningful or not, thus limiting his consideration to scientific and fact-stating discourse, whereas the linguistic analyst deals with the uses of language in a broader way, including the language of science as a special case. A linguistic analyst accepts the positivist criterion of meaningfulness for an empirical proposition, but is often interested in uses of language which are not necessarily of a fact-stating kind; for instance, the language of the moralist, the politician and the lawyer.

What, then, are the distinguishing features of Linguistic Analysis? It would be difficult to give a concise answer to this question, for the philosophers of this school are not, in general, given to enunciating principles or defining the rules of the techniques which they employ. Professor Gilbert Ryle, a leading exponent of Linguistic Analysis, has said that the business of philosophy is to replace "category habits" by "category disciplines." In attempting to explain what he means by this, I hope I shall be able to give some idea of the character and scope of Linguistic Analysis.

In everyday speech we use many expressions, idioms and phrases which are metaphorical or "pictorial" in character. Many of these are harmless, especially when used unselfconsciously, but if we start to wonder why we use certain linguistic forms, or ask what the *reason* is for using such forms, we may generate puzzles which are, apparently, factual puzzles about the nature of the world. These are the typical "problems" of philosophy. It is the thesis of Linguistic Analysis, and in many cases this has been demonstrated, that these apparently factual puzzles about the nature of the world are really brought about by the habitual use of certain forms of language which are metaphorical or analogical in character, and if taken literally tend to be misleading. These are what Ryle calls "category habits." Such puzzles can also be generated simply from the grammatical form of some sentences.

The Linguistic Analyst attempts to solve these puzzles, not by appeal to empirical facts (it is seldom that *facts* are disputed in philosophical arguments), but by exposing the nature of the systematically misleading category habits which generated the puzzles. Exploring the nature of the habitual categories then, in general, will suggest linguistic forms which do not so mislead—these are "category disciplines."

In the following paragraphs I shall indicate how this type of analysis of language has eased one philosophical puzzle about the "interior world" of the mind. But it will be helpful, first, to clarify the part played by logic in modern philosophy. Mr. Barfield, in the article mentioned above, suggests that to modern philosophy logic is unimportant, or even useless. This is far from the truth.

Rapid advances in the study and understanding of logic have been made during the past hundred years or so, but especially at about the turn of the century. Russell and Whitehead were instrumental in this, and the introduction of symbolic notation served both to clarify the uses of logic, and to help to reveal it as a particular form of mathematics. When Mr. Barfield says that to modern philosophy logic is bunk, he must have in mind the assertion of positivists that by logic alone we can never gain new empirical knowledge: and this is undoubtedly true. A deductive logical argument serves only to clarify and make explicit what is already implicit in its premises; it does not reveal new facts.

This is true also of mathematics, which consists essentially of following rules of deduction to obtain new formulæ from a given sets of axioms. Whether the axioms or formulæ are applicable to the empirical world is immaterial to the abstract mathematical system as such. If the axioms are self-consistent and the laws of derivation correctly followed, then the formulæ derived serve only to make explicit what is already implicit in the axioms and rules of the system. Hence, the positivist asserts, logic and mathematics as such are only systems of definitions and tautologies.

Although this is in a sense true, it does not detract from the fact that the working out of such systems is one of the great achievements of the human mind; what irks us is to think that the exercising of such high powers of thinking should result merely in a set of tautologies. But was Dr. Steiner saying anything very different when he said that to a higher Spiritual Being all that is contained in such a system would be intuitively clear, without the laborious "mind-exercising" which man experiences in thinking out mathematics?

Logic in Linguistic Analysis plays a somewhat different role; indeed, the word logic is used in a broader sense altogether. This broader sense of the word originated, I think, in the process of analysing propositions practised by positivists, in which they tried to show the logical relation of non-directly-verifiable propositions to verifiable propositions. For instance, to use a favourite, rather

trite, example, analysing propositions about "the average man" into propositions about particular men. The concept of "average man" is brought about by considering the characteristics of many individual men, and propositions concerning the average man have a certain *logical* relation to these directly verifiable propositions about particular men. Statements about the average man are not, of course, directly verifiable in the way they would be if the average man were just another individual man! So, this type of analysis consists at least in part in showing the logical relationships which exist between one set of statements and another. It is sometimes called logical analysis, or, pictorially, "charting logical geography"—i.e., showing how a particular set of statements is related to other sets which are similar to it in form. Linguistic Analysis consists of extensions and elaborations of this method.

It is perhaps difficult to grasp, from this brief description, just how Linguistic Analysis works, or what the point of it is: it is a discipline best understood by following actual examples, but space precludes the giving of a full example. However, I shall try to indicate how the "problem of perception" has been tackled.

The positivist, as explained above, finds the "problem of perception" a pseudo-problem—in so far as it raises philosophical puzzles—because he has a pragmatic approach to it, and finds that he can have satisfactory criteria for "true" and "false" observations without speculating about the process of perception itself. Linguistic Analysis shows that the "problem of perception" can be traced to certain misleading habits of language. (There may be other reasons for the rise of this problem to such eminence, but the Linguistic Analyst contents himself with what he can himself observe.) These habits of language may themselves be the product of philosophical deliberation. Thus the philosophers' distinction between sensation and perception, their talk of sense-data, etc., can be traced back at least to the reflections of Descartes over the nature of perception.

The peculiarity of this language is that it makes a distinction between what is "inside" and what is "outside"; there have been many attempts to determine the relationship between the "sensations within" and the "perception without," but they are all mistaken in their aim, because this relationship is not of the type they have taken it to be. It was assumed, implicitly, that the perceptions of the outside world were matched by a similar process in a private, inner world to which only the individual has access; the outer perception was held to be built up on this inner private perception (a view furthered by the dependence of perceptions on bodily processes).

Naturally, then, this idea of the private and public types of perception gave rise to doubts about the possibility of true knowledge of the world, the reality of others' experiences, and so on: how could one have true knowledge of the world, and be sure that

it was true, when each one's knowledge depended on experiences which he could not share with others? For by its very nature sensation belongs singly and irrevocably to one, and only one, private world, and it was held to be through sensation that we obtain knowledge of the outside world.

This problem—part of the so-called problem of solipsism—was not completely solved by the positivists; a solution is given by Linguistic Analysis. Speculation and theories about the inner world of sensation out of which perception is built can be traced back (to some extent at least) to the fact that, partly through ordinary usage, but mainly because of "linguistic decisions" made by earlier philosophers, it became habitual to talk of the private and public worlds of perception as if they were of the same *type*, except that one is public, the other private. (In other words, it was assumed that the language used to talk about the public world of perception applies equally well to the private world of sensation: but the use of the "public world" language in talking about sensation made sensation appear to be what it is not—a type of perception, but accessible to only one person.)

In non-philosophical usage there are important differences between the "public world" language and the "private world" language, and the *ordinary* use of "private world" statements differs from their use in traditional philosophy. In ordinary usage, sensation-statements refer to actual bodily sensations: for instance, a "sensation in the eye" would ordinarily be what one experiences when one has a bit of grit on the eyeball, but to talk of a visual experience as a "sensation" does not (normally) imply this type of bodily experience. In fact, it appears that usually when we talk about "visual sensations" we talk the language of perception, and the idea of a private world of sensation of the sort envisaged by philosophers is highly misleading. *Reportable* sensations of the outside world are *perceptions*, and normally we can distinguish these from illusory perceptions, or sensations not dependent on outside events. One cannot report a "sensation" of the outside world in the way one can report a perception, at least not in the sense that the reported sensation is a peculiar type of private perception of the outside world.

It may be that a language for talking of inner sensations is necessary, but we ought not to assume that it will have the same rules-of-use (or logical grammar, or "logical geography") as the language of perception. It was the assumption that the logical grammar for sensation-statements was the same as for perception-statements that led to puzzles.

Knowledge of the world is built up by means of reported perceptions; to be able to report a perception means to be able to name it, or to name some of its characteristics. What does this mean? It means that knowledge is gained by the union of perception with concepts! The theory that empirical knowledge is

built up simply out of "private sensations" or "sense-data," with all the difficulties and puzzles this has given philosophers, is shown to be wrong, both by a careful analysis of the process of gaining knowledge (Dr. Steiner), and by analysis of the correct use of perception statements (Linguistic Analysis).*

The treatment of this traditional problem of philosophy also paves the way for overcoming Descartes' theory of the mind as an interior, paramechanical world, modelled on the mechanics of the physical world; interested readers will find a full treatment of the topic from the Linguistic Analyst's point of view, in Professor Ryle's *The Concept of Mind*.

There is much in the thought-content of Dr. Steiner's *Philosophy of Spiritual Activity* with which a modern philosopher would find himself in sympathy, but the *method* used would probably put him off. No disparagement of Dr. Steiner's philosophy is meant in saying this, but it is a fact that the method of analysing "processes of perception," or "the act of knowing" is frowned on by modern philosophers, and with some reason, for it was just this method which was, apparently, used by the metaphysical philosophers, with not very useful results.

On the other hand, one may wonder whether the shift of emphasis to the analysis of language was a step forward. The achievements of Positivism and Linguistic Analysis are largely negative, in that they have shown that a good deal of what used to pass as philosophy was unfounded speculation. They have shown that attempts to build up theories of knowledge and of the world not based on empirical observation and fact are unnecessary, and that at the basis of most of these theories were linguistic confusions and misleading linguistic habits. Showing this does not help towards a better understanding of man and the world, which can come only through further observation. Some ways of observing the process of thinking are described by Dr. Steiner in *The Philosophy of Spiritual Activity*, but in the history of philosophy and psychology it has been notoriously difficult to reach agreement on the validity of such methods. This is another reason why what Dr. Steiner says, for instance, about intuitions in the realm of thinking, would be viewed with scepticism. No doubt with time these prejudices will be overcome.

The very fact that metaphysical theories of knowledge and of the world as a whole were felt to be important, and were held in such high esteem even fifty years ago, testifies to a rapid change in men's consciousness of themselves and their relationship to the world. In the flowering of such theories can one not hear a last echo of the voice of Authority, pontificating about the relationship man must accept as holding between himself and the world, or see

* I do not wish to imply that there are no real problems of perception and sensation; there are many, but they belong to the provinces of physiology and psychology, rather than to that of philosophy.

a last glimmer of the idea that beyond the world of ordinary perception there lies another, unattainable by the powers of men? These are surely the last remnants, cast in an intellectual form, dead and rigid, of what once *lived* in the souls of men.

Modern philosophy has shown that metaphysical theories are foreign to the modern man's empirical approach to life; but it has nothing to offer in their stead. Surely it is just here that Anthroposophy has so much to offer, especially in England, where the empirical tradition in philosophy is strongest. For Anthroposophy offers a *Weltanschauung* based on empirical principles—on observation—which is positive but not pontifical; which appeals—or should appeal—to thought and sense rather than to belief.

In conclusion, I should like to give a pictorial summary of what I have put forward.

The sphere of philosophy is like a garden, in which many weeds as well as useful plants grew. A gardener came to the garden with a crude but effective tool, and removed most of the weeds; his name was Positivism. A second gardener came who understood why many weeds grow, and helped to ensure that it would be difficult for those weeds to grow again; his name was Linguistic Analysis. But there was very little left in the garden when these two had done their work. Waiting nearby was a third gardener, Anthroposophy, who had in his care the seeds which would grow in the garden, which would make it once more fruitful, beautiful and alive. The story is not yet ended: will the first two gardeners recognise the third, or chase him off as a vagabond?

GOOD FRIDAY

Joy Mansfield

IT was Good Friday and, as so often, there seemed to be a special stillness, a gentleness and sense of withheld life, about the sky, the sunlight and the movement of the air. Very early grey clouds and a chill wind marked the day, but by noon the heavens were a light and delicate blue and the sun's rays were touching fields, lanes and gardens and the people who moved about there.

We set out on a walk, my elder daughter and I, planning to turn up the lane beside the little Roman Catholic chapel; the lane runs along between hedgerows for a while, then changes into a field path and finally peters out altogether, leaving one to pick a careful way at the edge of cultivated land.

The little chapel has always held an appeal for us. It adjoins an old farm house and may once, perhaps, have been a barn. The walls are whitewashed and the eaves overhang, so that many birds shelter and nest there. My daughter wished to go in, but we decided we would do so on the way home.

We went along by the farm orchard and noticed that the massed snowdrops were browning now, though yellow was showing through the daffodil buds. On the hedgerows the hazel catkins hung drably, where a few weeks earlier their golden tails had made a fine contrast to the sooty ash buds. These were still hard and closed, it seemed immovably, but on the hazel twigs the buds were swelling, about to burst, with a touch of green showing here and there, and in places a tiny leaf. At home a little boy was in bed, hot and feverish, and we searched for a bunch of flowers to take to him. No celandine yet, but one bright dandelion, and some tiny dwarfed flowerlets of chickweed and groundsel and nettle growing close to the ground out in the open fields—that was all we found. Spring had not really come. And yet one felt it all there so close that it could almost be touched, seen, smelt.

It was only March, and the triumphant bursting through of life was more to be sensed than outwardly observed. The trees were still bare, the branches drawn in clear, sharp lines against the sky. One felt the wind could easily grow cold, even bitter; the sun was only slowly finding strength and warmth.

But it was so near. The boundary between this half-winter and the true spring, a shimmering line which at any moment might enrich itself and widen out before our eyes.

We were on our way back when at our feet a lark rose up and we watched it soar and hover, higher and higher, while the sweet singing throbbed in our ears. Then it began to drift sideways, downwards, and at last, fell like a stone to the earth, so that the song still seemed to be echoing in the sky, divorced completely from the bird which had dropped with such fearless certainty into the heart of the fields. And yet we knew that the secret of its singing still rested there within the throat of the small brown feathered creature hopping along across the ploughed land.

A little way off another lark rose up, and then another. They seemed like messengers called upon to waken the full life of the spring and rouse the latent fecundity of field and hedgerow.

We reached the little chapel again and my daughter reminded me that we were to go inside. The door was open and we shut it gently behind us. I gazed in surprise. Over the crucifix, over the figure of Mary and the statues of the saints, lay dark purple palls. I had forgotten it would be so on Good Friday.

Outside we could hear children playing in the farm garden and the sound of a tractor. But here the silence was intense.

The whole force of the spring, of the bursting buds, of the fearless, soaring lark, seemed to be here in this little chapel, but bound and gagged—the heart of pain, of loneliness, of knowledge...

Behind the close, stifling palls there seemed to lie concealed a strength which was full of light. And over all the chapel hung a mood of waiting, of endurance through a darkness which obliterated and made dumb.

BOOK REVIEWS

THOMAS AQUINAS

The Redemption of Thinking. A Study in the Philosophy of Thomas Aquinas. By Rudolf Steiner. Translated and edited with an Introduction and Epilogue by A. P. Shepherd and Mildred Robertson Nicoll. (Hodder and Stoughton, 12s. 6d.)

THE difficulty of introducing Anthroposophy to more and more people in the outside world is notorious. Over and over again those engaged in the task find themselves on the horns of a dilemma. If they "link on" with thoughts and problems which are in the general intellectual climate, the reader who is totally unacquainted with the depths from which Rudolf Steiner's Anthroposophy springs will see it as one more interesting theory—not so very different from several with which he is already acquainted. But if they avoid this pitfall and insist on the depths, what they say will sound, to such a reader, fantastic and pretentious.

In this precarious adventure, Dr. A. P. Shepherd is a pioneer. It is less than two years since his valuable and successful book, *A Scientist of the Invisible*, was published by Messrs. Hodder and Stoughton, and now—this time in collaboration with Mildred Robertson Nicoll—he has followed it up with another, written in quite a different vein. *The Redemption of Thinking*, apart from its other merits, is a significant experiment in what might be called anthroposophical exegesis. For the method adopted is, I believe, a new one. The authors take a subject which has recently attracted renewed interest in many quarters. In a brief Introduction they allude to this interest and the need from which it springs, and speak of Steiner's contribution to the subject and of Steiner himself. The main substance of the book (94 pages out of 185) consists of Steiner's own words; but these are again followed by an Epilogue of about 40 pages, which illuminates and (for the average reader) deepens what is contained in the lectures, by bringing to bear on it something of the rest of anthroposophy.

The subject is Thomism. In the year 1920 Rudolf Steiner gave three long lectures on Scholastic philosophy, and especially that of Thomas Aquinas. "At that time," says the Introduction, "they passed almost unnoticed. Indeed, in a lecture a year or two later Steiner himself remarked that even his own followers hardly seemed to realise their importance, as presenting the essential task of redeeming modern thought from the fetters of its own preconceived limitations."

It is the text of these three lectures—in the authors' careful and scholarly English translation—which forms the heart of *The Redemption of Thinking*.

Steiner's approach differs from the approach of the neo-Thomists in that he does not attempt to interpret Aquinas directly out of modern consciousness, but first seeks to reconstitute in his hearers something of the very different consciousness out of which Aquinas's philosophy was written. Without this, it is really impossible to understand Scholasticism. We use the same words as the Schoolmen did, and forget, or are ignorant, that the meanings of the words have altered too much to carry the real content of the thought to us.

Therefore in the first lecture we hear more of Aquinas's predecessors—particularly St. Augustine—than of Thomas himself. The gradual "fall" of human thinking from its old perception of a spiritual world had reached a sort of climax by the time he was born, and it was held that man's reason had indeed participated in the fall of Adam, so that the conclusions it arrived at must be contrary to the truth of revealed religion. Aquinas successfully combated this conception of a "double truth" and found that human reason, accurately employed, reached conclusions not incompatible with the Christian revelation. But further than this he could not go. Before human thinking can actually confirm the Christian revelation, by participating in the being of the Christ Himself, it needs to be redeemed. This is possible in our age, but was not yet possible in the thirteenth century.

This is the note on which the lectures conclude, and this is the thought that is taken up and woven into the fascinating Epilogue. After ranging over topics as divergent as Rudolf Steiner's relation to the Theosophical Society and Professor Fred Hoyle's book, *The Nature of the Universe*, the Epilogue returns in the end to the substance of the lectures and the direction in which they point mankind.

Hardly less valuable than the Epilogue are the numerous footnotes, consisting of allusions to, and quotations from, other books and lectures by Rudolf Steiner himself, and also from many of the thinkers to whom he refers in these lectures, such as Origen, Plotinus, Aristotle. To these are added six short, interesting appendices on Origen, Aristotle, Jundi-Shapur, Dionysius the Areopagite, Steiner's *Philosophy of Spiritual Activity*, and the Mystery Centres. The book is embellished with a frontispiece in the shape of a good photographic reproduction of Traini Francesco's picture, *The Apotheosis of St. Thomas*, in the church of S. Caterina at Pisa. Yet all this gives a very poor notion of the wealth of pertinent detail with which every rift in this little gold-mine is loaded. Finally, its value for reference is more than doubled by the provision of an adequate index—a blessing for which readers of books and lectures by Rudolf Steiner have hitherto, in the inscrutable wisdom of editors and publishers, been thought unfitted.

Here, then, is a compact, well-written, well-produced book, which enables us, first of all, to see the remarkable phenomenon of Scholastic philosophy in its time-setting in the evolution of human

consciousness, and then, with the editors' help, to place the author himself in that setting, and these particular lectures in their true setting in the author's life and thought. In that triple framework, Scholasticism, far from being the dry-as-dust affair it is often supposed to be, emerges as a development pregnant for the future, if only it is taken, as it should be by our generation, as a spur to further activity in the redemption of thinking.

Owen Barfield.

TRUE HUMAN THINKING

Self-Observation. An Introduction to Rudolf Steiner's "Philosophy of Spiritual Activity." By Arnold Freeman. (Anthroposophical Publishing Company, 6s. 6d.)

BY writing this introduction to Dr. Steiner's fundamental philosophical work, Arnold Freeman has rendered a great and very welcome service to the reader and student. He has not made an abridged content of the book, neither does his well worked-out commentary tempt the reader to find unnecessary a study of the book itself. Through extracts from Rudolf Steiner's autobiography the reader meets Steiner's struggle, while still a youth and a young student, to come to an understanding with the process of his own consciousness.

These extracts are followed by a short sketch of Steiner's *Theory of Knowledge Implicit in Goethe's World-Conception*. This book was published when the author was 23 years old, and it shows with outstanding clearness the answers to such questions as: How does man grasp outer existence in his consciousness? What is the explanation of thinking? Freeman then proceeds to a commentary on the fifteen chapters of the *Philosophy of Spiritual Activity*.

The book's German title is *Philosophie der Freiheit*; Dr. Steiner insisted that to avoid misunderstandings the English translation should be called the *Philosophy of Spiritual Activity*. This change may seem surprising, but on closer reflection it can be enlightening.

As long as the brain is believed to be the producer of thoughts, thinking cannot be understood in its real essence. It is beyond question that thoughts which connect us with experience through the senses need the brain. It is through the brain that we have the sense-experiences which connect us with space. Thinking is also connected with memory, which can carry us many years back; this thinking manifests itself in time. But thinking in its own true nature and purest essence is free from space and time; it is of a spiritual-eternal quality. In this eternal quality man can educate himself through self-observation to the conscious experience of Intuition; the experience of Oneness with the Origin, which itself is timeless and spaceless, but manifests its creative powers in time and space.

If man acts out if this "Oneness," he is free, and is able to think without the brain, yet he never loses consciousness of his earthly surroundings, or sight of his earthly duties. He becomes then truly "spiritually active," and has regained his "cosmic status." He is free.

This is not easily achieved, but the process of knowing is a "dramatic" process. Man begins with "I think," and steps gradually forward to "The world thinks in me." It is a true modern "Pauline" experience, which Paul expressed with the words, "Not I, but Christ in me."

Arnold Freeman is well aware of all the difficulties which the student of such a work as the *Philosophy of Spiritual Activity* has to face. In his commentary he does not try to make the reading easier or simpler, but he stimulates the present-day reader who, with his doubts and arguments, is often unwilling to spend the time needed for an understanding. Freeman encourages the reader to face the book, and thereby his own "self," with patience and endurance.

Freeman's commentary reveals his wrestling with the content of the *Philosophy of Spiritual Activity*. Through this wrestling he has made the content his own, and he knows what he owes to his fellow-men. For their sake he felt it his duty to draw renewed attention to this fundamental work.

Rudolf Steiner wrote it at the end of the 19th century, but with the 20th century and the centuries to come clearly in his mind. He foresaw the scientific and technical achievements of the 20th century and the danger that man would forget what "man" is. Through his penetration into the process of knowing, and the immense suffering connected with it, he was positive that even in this materialistic age every man has dormant within him the eternal man, together with great spiritual powers that can be awakened. They give the individual the right self-confidence, and above all an unshakeable confidence in the great vocation of Humanity—and this begins, quite simply, with an understanding of the true nature of thinking.

The awakening of "Humanity" in every man must be a way of great suffering, either through all the probations and catastrophes which evolution brings, or through an understanding of the true process of knowledge. Along the former way, spiritual activity will come in the course of evolution; along the latter, and through the suffering connected with it, every man of to-day can become the "man of to-morrow."

May Arnold Freeman's little book find many readers, who through his commentary will grow into a deeper understanding of the *Philosophy of Spiritual Activity*.

Fried Geuter.

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