AN APPROACH TO CONTEMPORARY QUESTIONS
IN THE LIGHT OF ANTHROPOSOPHY

The Golden Blade

Edited by Arnold Freeman and Charles Waterman

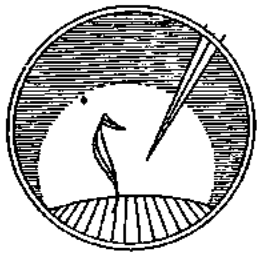
1953

PUBLISHED ANNUALLY **SEVEN AND SIX**

The Golden Blade

1953

Edited by Arnold Freeman and Charles Waterman
Published at 3, Shipton Street, Sheffield 6
Price 7/6 (7/10 post free)



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 purpose of this Annual is to publish writings which bring the outlook of Anthroposophy to bear on questions and activities of 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."

FROM PHILOSOPHY TO ANTHROPOSOPHY

Rudolf Steiner

*The concluding chapter of Dr. Steiner's book, 'The Riddles of Philosophy'.**

IF one studies the workings of the minds of philosophers up to the present time, one becomes aware of undercurrents which do not rise to the surface of consciousness, but remain to a certain extent instinctive. In these undercurrents there are forces at work which give direction and sometimes even form to the ideas expressed, and yet the thinkers concerned are unwilling to investigate them directly. The statements they make often seem to be impelled by hidden forces which they will not discuss and from which they recoil. Such forces are active in the thought-worlds of Dilthey, Eucken and Cohen. The assertions one meets there are the fruit of unconscious impulses which dominate the thinking of these philosophers, but are not admitted openly into the systems they construct.

In many systems, certainty of knowledge is the aim, and Kant's ideas are more or less taken as a starting-point. The form of thought is determined, consciously or unconsciously, by the outlook of natural science. But there are many thinkers who suspect that the key to a knowledge of the external world must be sought rather within the self-conscious soul. And nearly everyone is dominated by the question : "How does the self-conscious mind come to regard its own experience as a genuine manifestation of reality?" The ordinary world as given to the senses has become "illusion," because the self-conscious ego, in the course of philosophic development, has found itself more and more isolated within its subjective experiences. Even sense-perceptions have come to be regarded as subjective experiences which are powerless to guarantee the reality and permanence of whatever is perceived. It is felt how much depends on finding a basis for knowledge in the self-conscious ego. But the search stimulated by this feeling leads to views which provide no means of entering with the ego into a world that offers a satisfying basis of existence.

The explanation of these facts may be found in the attitude of a man who, by developing a philosophy, has acquired a detached attitude towards external reality. He feels himself surrounded by a world which first reveals itself to him through his senses. But

*Published by kind permission of the Rudolf Steiner-Nachlassverwaltung, Dornach, Switzerland, and in agreement with the Rudolf Steiner Publishing Company.

he has also become aware of his own inner activity and of the creative nature of his experience. He knows it to be an irrefutable truth that there can be neither light nor colour without an eye sensitive to both. Hence he becomes aware of something creative in the activity of the eye. But if the eye produces colour by its own activity—as, according to this philosophy, we must believe it does—"Where," he asks, "am I to find anything that exists in its own right and does not owe its existence to my creative power? If this is true of what the senses reveal, must it not be even more true of thinking, which seeks to form ideas about reality? Is my mind not condemned to produce pictures which spring from the character of mental life itself, and can never guarantee any sure approach to the sources of being?" Questions such as these break out everywhere along the path of modern philosophic development.

As long as we cherish the belief that the world given to the senses is a separate, independent realm, which we must explore in order to gain knowledge of its inner nature, so long will it be impossible to clear up the confusion caused by these questions. That the mind can produce knowledge only by its own creative effort is a conviction arrived at quite rightly from the premises outlined in an earlier chapter of this book, entitled "The World as Illusion," and also in the treatment of Hamerling's ideas. But having reached this conviction, we shall get no further so long as we think that the sense-world is self-contained, and that somehow, with the forces produced inside the mind, we are constrained to copy what lies outside it.

The difficulty will be overcome only when we grasp that it is the very nature of perception to present us, not with a fully self-contained reality, but with an incomplete, or, as it were, a half-reality.

As long as we assume that our sense-perceptions present us with a complete reality, we cannot arrive at an answer to the question: "What has the creative mind to contribute in the way of knowledge to this reality?" We shall perforce cling to the Kantian opinion that man must regard his knowledge as the product of his own mind, and not as a revealer of things as they really are. If reality lies outside the nature of the mind, then the mind can never produce anything corresponding to this reality, but only something that issues from its own organisation.

The whole situation changes once we recognise that the human mind, with the knowledge it creatively produces, is not estranged from reality, but that in living, which precedes all knowing, it conjures up for itself a world which is *not* the real world. Man is so placed in the world that, by the very nature of his mind, he makes things different from what they really are. There is a certain justification for Hamerling's words: "Certain stimuli produce the sense of smell in our olfactory organ. The rose therefore has no scent when nobody smells it. If that means nothing to you, gentle reader, and if your mind shies away from it like a nervous horse, then read no further;

leave this and every other book on philosophy unread; for you lack the capacity needed to grasp and retain a fact without prejudice." How the sense-world appears to anyone coming into direct contact with it does no doubt depend on the nature of his mind. Must it not then follow that this appearance is a product of the mind?

If, however, we take an unprejudiced view of the matter, we shall see that the unreal character of the external sense-world is due to the fact that when man first comes into direct contact with things, he suppresses something that in truth belongs to them. If he develops a creative inner life, and allows the forces slumbering in the mind's depths to rise to the surface, he adds something to his sense-perceptions which in the act of knowing turns the half-reality into a full reality.

It is the nature of the mind, when it first confronts objects, to eliminate something which really belongs to them. Hence they appear to perception not as they really are, but in the form which perception gives to them. This, however, is because the mind has removed something which belongs to their real being. And in so far as man does not remain at his first view of things, he adds something to them through knowledge—something that reveals their full reality for the first time. It is not that by knowing the mind adds any foreign element to things, but that prior to the stage of knowing it has deprived them of something that really belongs to them. It will be the task of philosophy to gain the insight that the world revealed to man, before he brings thinking to bear on it, is "illusion," whereas the path of knowledge leads to full reality.

The knowledge that is the product of creative thought seems to be merely subjective because, before the stage of knowing, we are obliged to close our eyes to the real nature of things. We cannot see their real nature when we first confront them. Through knowledge we discover what was at first hidden from us. If we regard what we first perceive as reality, then the results of knowledge will appear as something added to reality. If we recognise that what we have only apparently produced ourselves is to be sought in the object, and that at first we merely avoided seeing it, then we shall find that knowing is a real process through which the soul unites itself increasingly with the world and extends its inwardly isolated experience to embrace world-experience.

•

In a small work called "Truth and Science," which appeared in 1892, the present author made a tentative effort to give a philosophic basis to what has just been said. He spoke there of the views that philosophy must arrive at if it is to overcome the obstacles which have naturally resulted from its latest development. A philosophic point-of-view was suggested in the following words; "It is not the

first form in which reality approaches the ego that is the true one, but the final form which the ego gives to it. That first form has no significance whatever for the objective world; its only value is to serve as a basis for the thinking process. So it is not the form of the world which theorising gives it, that is subjective; what is subjective is the form in which it is first presented to the ego."

The author enlarged on this point-of-view in his later work, "The Philosophy of Spiritual Activity." There he was at pains to give it a philosophic basis, as follows: "It is not the fault of the objects, but of our mental organisation, that they at first appear to us without their corresponding concepts. We are so made that reality approaches us from two sides, that of perception and that of thinking .... It has nothing to do with the nature of things how I am organised to apprehend them. The cleavage between perceiving and thinking is present only at the moment when I, as observer, am face to face with the object." And later: "The percept is that part of reality that is given 'objectively' from outside; the concept that part which is given 'subjectively,' through intuition from within. Our spiritual organisation separates reality into these two factors. The one factor appears to perception, the other to intuition. Only the union of the two, which consists of the percept fitted into its place in the universe makes up reality in its fullness. If we consider the bare percept, we have no reality but only chaos. If we consider the bare laws that govern the percepts, we have nothing but abstract concepts. Reality is not to be found in the abstract concept, but in thoughtful observation which considers neither the concept nor the percept alone, but the union of the two."

If we come to adopt this point of view, we shall be able to think of mental life and of reality as united in the self-conscious ego. This is the view towards which philosophy has been tending since the Greek age; but it is in Goethe's outlook that the first clearly perceptible traces of it are to be found. A recognition arises that the self-conscious ego does not live in isolation, apart from the objective world, and that its sense of detachment is an illusion.

This illusion can be overcome by seeing that at a certain stage of evolution man was obliged to give his ego a provisional form in order to eliminate from consciousness the forces that united him to the world. If he had remained conscious of those forces within him, he would never have arrived at a strong and independent self-consciousness; he would never have become a self-conscious 'I.' The development of man's self-consciousness depends on the soul being given the possibility of seeing the world without that part of reality which the self-conscious ego eliminates prior to the stage of knowledge. The world-forces belonging to this part of reality withdraw into obscurity in order to allow the self-conscious ego to light up strongly. The ego must therefore realise that it owes its knowledge of *itself* to an act which spreads a veil over its knowledge of the

world. It follows that everything which helps the soul towards a strong and energetic experience of the 'I' renders invisible the deeper layers in which the 'I' is rooted.

All knowledge which is acquired through the ordinary consciousness tends to strengthen a man's self-conscious ego. His perception of the outer world through the senses; his sense of being separate from this world, his view of the world as "illusion"—an attitude characteristic of a certain stage of scientific inquiry—all these give him the feeling of self-consciousness. Were it not so, the self-conscious ego would never emerge. If, therefore, in the act of knowing one seeks merely to copy what is observed before knowing begins, one will never arrive at a genuine experience of reality; all one can have is a copy of a half-reality.

If we admit the truth of this, we cannot look for an answer to the riddles of philosophy in the experiences of the soul on the level of ordinary consciousness. It is the task of this consciousness to strengthen the ego; in order to do so it must cast a veil over the connection of the ego with the external world, and therefore cannot show how the soul is connected with the real world. This explains why a search for knowledge which tries to make philosophic progress by the methods of natural science, or similar ones, must eventually fail. We have already had occasion to point out this failure with regard to a number of modern thinkers. For all modern scientific research employs essentially the same methods of thought as those which serve to detach the self-conscious ego from reality. And the strength and greatness of modern science rest upon the unreserved application of this method.

Individual philosophers, such as Dilthey and others, direct the attention of philosophy to self-observation. But what they study is those experiences of the soul which form the foundation of the self-conscious ego. Not by this means will they arrive at the world-sources from which these experiences spring forth. For these sources are not to be found on the level of ordinary consciousness, where the soul first becomes aware of itself. To reach these sources, the soul must transcend this ordinary consciousness. It must experience something that ordinary consciousness cannot give it. By everyday standards, such an experience seems at first like utter nonsense. The soul has to be conscious of itself as capable of knowledge in a new element, without taking its consciousness along with it; it has to transcend consciousness and still remain conscious! And yet—either we shall plunge further into blind alleys, or we must recognise that this "utter nonsense" is so only in appearance, and that precisely in this way must a road to a solution of the riddles of philosophy be sought.

We shall have to recognise that the way into the inner recesses of the soul is bound to be quite different from that taken by many modern philosophies. We shall not reach the depths of the soul so long as we are satisfied with the experiences offered by ordinary

consciousness ; we shall stop short at what these depths throw up. Eucken's philosophy is in this position. We must strive to get below the surface. This, however, is impossible by means of our ordinary experiences, for the strength of these lies precisely in keeping consciousness at its familiar level. Means for penetrating the mind more deeply must be found by turning the attention to something that works alongside ordinary consciousness, but without in any way entering into it.

When a man thinks, he is conscious of his thoughts ; he wants to express something by them, he wants to think correctly in the ordinary sense. But one can direct one's attention to something else, and consider the activity of thinking as such. One can, for instance, focus the attention on a thought regarded as a symbol and nothing more. One can keep this thought steadily before one's mind, and while so doing one can immerse oneself in the inner activity of the mind. It is here a matter not of living in thoughts, but of experiencing the activity of thinking. Now if we continue this exercise long enough, we shall come to realise that we have arrived at experiences which separate us from all such processes of thought and imagination as are connected with the body. This can be achieved also with feeling and willing ; even with sense-perception. If we are not afraid to admit that a knowledge of the self is not gained by simple introspection, but by examining what these exercises first bring to light, we shall reach fruitful results.

A continued practice of exercises of this kind leads to such a strengthening of the inner activities of thinking, feeling and willing that in the end these experiences become in a sense "solidified". In this condition they reveal their inner nature—an inner nature which cannot be perceived at the level of ordinary consciousness. Through such exercises we discover that for the ordinary consciousness to come into existence, the forces of the soul must be so "rarefied" as to become imperceptible. These mental exercises involve an immense heightening of capacities already known to ordinary consciousness. They are the capacity for attention, the capacity for loving surrender to what the soul experiences. If we are to reach our goal, these capacities must be enhanced to such a degree that they function as wholly new forces.

If we proceed in this way we shall arrive at a real experience which by its very nature is independent of bodily conditions. This is a spiritual life which obviously must not be confused with anything that Dilthey and Eucken call "the spiritual world." *Their* spiritual world can be experienced only as long as a man remains connected with his body. The spiritual life here intended cannot be experienced in any such way.

One of the first discoveries that follows the attainment of this new spiritual life is a true knowledge of ordinary mental life. Even this is in reality not produced by the body, but takes place outside it,

My experiences of colour and sound are not products of the body, but as a self-conscious ego I am connected with them outside the body. The function of the body may be compared with that of a mirror. The very nature of my ordinary consciousness makes it impossible for me to see a colour by merely thinking of it. In the same way I cannot see my own face when I look in front of me. But if I have a mirror before me, I become aware of my face as part of my body. Unless I stand before the mirror, I *am* my body and feel myself as such. Standing before the mirror, I perceive my body as a reflection. It is the same with sense-perception—though of course we must take into account the obvious inadequacy of the analogy. I live with the colour outside my body ; through the activity of the body (eyes, nervous system) the colour becomes for me a conscious perception. The human body is not the creator of percepts, especially not of mental percepts but a reflector, an apparatus for reflecting mental and spritual processes that run their course outside the body.

Such a view places the Theory of Knowledge on a promising foundation. In a lecture called "The Psychological Foundations of Spriritual Science and its Place in a Theory of Knowledge", delivered in 1911 before a Philosophical Congress at Bologna, the present author gave the following account of a view then forming in his mind: "If we are to reach a Theory of Knowledge of the ego, we must not think of it as being *within* the bodily organisation and receiving impressions 'from outside'. We must transfer the ego into the general order of things, and see in the activity of the bodily organisation only something like a mirror, which reflects the activity of the soul as it lives and moves in the true being of the world."

During sleep this mirror-like relation between soul and body is interrupted ; the ego lives only in the sphere of the spirit. Mental life does not exist on the level of ordinary consciousness when the body ceases to act as a mirror ; sleep is therefore a condition of unconsciousness. The exercises indicated above, and others of the same kind, have the effect of developing a different kind of consciousness. By means of them the soul becomes capable not only of a purely spiritual experience, but of strengthening what is experienced to such an extent that this is, so to speak, mirrored in itself without the help of the body, and thus develops into a spiritual perception. And in this way the soul is able for the first time to experience consciously its own true being. Experiences that do not belong to the sense world, but to one in which the soul has its essential being, now rise in the manner of memory from its depths.

It is more than likely that the disciples of many modern philosophies will relegate the world thus brought to light to the realm of error, illusion, hallucination, autosuggestion and the like. To such we can only reply that a serious pursuit of the way here indicated will bring the soul a spiritual understanding that acts as a criterion for distinguishing illusion from spiritual reality, just as in ordinary life

a man of sound mind can distinguish between perceptions and fantasies. We shall seek in vain for an intellectual proof of this spiritual world ; but there is no proof either of the reality of the world of perception. In both instances it is experience itself that passes judgment.

What hinders many from taking the step which—according to this account—is the only one that promises to solve the riddles of philosophy, is that they think it will lead them into a realm of cloudy mysticism. Unless, however, the student already has a rooted tendency to cloudy mysticism, he will find that along this path he gains access to a world of spiritual experience as crystal-clear as a system of mathematical ideas. If he is inclined to seek the spiritual in the "dark unknown" or the "inexplicable," he will not get anywhere, either as an adherent or as an opponent of the views here urged.

Quite understandably, these views will be violently opposed by all who regard as truly scientific only the methods used by natural science for gaining knowledge of the sense-world. But anyone who can get away from this one-sidedness will be able to see that it is precisely in the genuinely scientific way of thinking that the basis lies for accepting what is here stated. Indeed, the ideas described in this book as those of the modern scientific method offer the best subject-matter for meditation. By means of them the mind can free itself from dependence on the body. Anyone who makes use in this way of the ideas of science will find that thoughts which originally seemed suited only to describe natural processes will really set the mind free from the body. And he will thus come to see that the spiritual science here envisaged is a carrying further of the scientific way of thinking, provided the latter is rightly experienced in the soul.

*

When the true nature of the soul is sought along this path, it becomes a matter of direct experience. In the Greek era, the development of philosophic outlooks led to the birth of systematic thinking. Further progress led through the experience of thinking to a philosophic contemplation of the self-conscious ego. Goethe aspired to conscious experiences which, though in themselves products of the mind, would if worked on by the soul, bring it into a realm of reality inaccessible to the senses. He is standing on the ground indicated here when, for example, he strives for the *Idea* of the plant—the *Idea* which cannot be seen by the eye and yet contains within itself the supersensible nature of all plants; so that, starting from it, we can picture mentally the plants that are capable of coming into existence.

Hegel regarded the experience of thought as "a standing in the true being of the world" ; the world of thought became for him the inner being of the world. An unbiassed study of philosophic development shows that thinking was indeed the medium through which the self-conscious ego was to reach independence ; but it shows, too, that there must be progress from the life of thought to an

experience which leads beyond the ordinary consciousness. For even Hegel's experience takes place on the level of this ordinary consciousness.

In this way a vision of reality inaccessible to the senses is revealed to the soul. In penetrating this reality we discover our own deeper nature. But how is this nature related to the external world that is experienced through the body? The soul that has been thus freed from the body feels itself immersed in a realm of spiritual activity ; and it knows that even in ordinary life its own being lies outside the body, which merely acts like a mirror in making its experiences perceptible. In this way the soul's spiritual experience is raised to the height where a new element of reality becomes apparent.

For thinkers such as Dilthey and Eucken, the spiritual world is the sum-total of all that men experience as human culture. If this is really the only spiritual world accessible to us, the foundation of thought implicit in the scientific approach is taken from under our feet. For the scientific outlook, the world is so arranged that the individual physical human being appears as a comprehensive unit towards which all other processes and beings of nature point. The world of culture is merely what is created by this physical individual; it has no superior unity of its own, transcending that of the individual human being. Spiritual science, as here understood, points to an experience which the soul may have independently of the body. And this, too, reveals itself as having an individual nature. It appears as a Higher Man, for whom the physical body is an instrument. The spiritual experience of the soul, when the soul is set free from the body, is realised as a spiritual human unit which is contained by the spiritual world as the body is contained by the physical.

The soul knows, too, that it stands in a certain relation to the body. From one point of view, the body appears as a cast of the spiritual nature, so that one may venture a comparison with the shell of a snail. From another point of view, the soul-spiritual element in the body appears as the sum of the forces of a plant, which, after it has blossomed into leaf and flower, concentrate in the seed in order to prepare a new plant. One cannot have experience of the spiritual man without knowing that he contains something that will develop into a new physical man. This man is one who, from out of his bodily experiences, has accumulated forces which cannot come to expression through his existing body. The body has indeed given the soul opportunities for experiencing the external world in ways which influence the spiritual man ; but the body is too rigidly organised for the spiritual man to be able to remould it after the pattern of the experiences he has had. Thus there remains hidden in the human being a spiritual being that contains the germ of a new man.

*

Thoughts such as these can only be touched on here. They point to a Spiritual Science conceived after the pattern of Natural

a man of sound mind can distinguish between perceptions and fantasies. We shall seek in vain for an intellectual proof of this spiritual world ; but there is no proof either of the reality of the world of perception. In both instances it is experience itself that passes judgment.

What hinders many from taking the step which—according to this account—is the only one that promises to solve the riddles of philosophy, is that they think it will lead them into a realm of cloudy mysticism. Unless, however, the student already has a rooted tendency to cloudy mysticism, he will find that along this path he gains access to a world of spiritual experience as crystal-clear as a system of mathematical ideas. If he is inclined to seek the spiritual in the "dark unknown" or the "inexplicable," he will not get anywhere, either as an adherent or as an opponent of the views here urged.

Quite understandably, these views will be violently opposed by all who regard as truly scientific only the methods used by natural science for gaining knowledge of the sense-world. But anyone who can get away from this one-sidedness will be able to see that it is precisely in the genuinely scientific way of thinking that the basis lies for accepting what is here stated. Indeed, the ideas described in this book as those of the modern scientific method offer the best subject-matter for meditation. By means of them the mind can free itself from dependence on the body. Anyone who makes use in this way of the ideas of science will find that thoughts which originally seemed suited only to describe natural processes will really set the mind free from the body. And he will thus come to see that the spiritual science here envisaged is a carrying further of the scientific way of thinking, provided the latter is rightly experienced in the soul.

*

When the true nature of the soul is sought along this path, it becomes a matter of direct experience. In the Greek era, the development of philosophic outlooks led to the birth of systematic thinking. Further progress led through the experience of thinking to a philosophic contemplation of the self-conscious ego. Goethe aspired to conscious experiences which, though in themselves products of the mind, would if worked on by the soul, bring it into a realm of reality inaccessible to the senses. He is standing on the ground indicated here when, for example, he strives for the *Idea* of the plant—the *Idea* which cannot be seen by the eye and yet contains within itself the supersensible nature of all plants; so that, starting from it, we can picture mentally the plants that are capable of coming into existence.

Hegel regarded the experience of thought as "a standing in the true being of the world" ; the world of thought became for him the inner being of the world. An unbiassed study of philosophic development shows that thinking was indeed the medium through which the self-conscious ego was to reach independence ; but it shows, too, that there must be progress from the life of thought to an

experience which leads beyond the ordinary consciousness. For even Hegel's experience takes place on the level of this ordinary consciousness.

In this way a vision of reality inaccessible to the senses is revealed to the soul. In penetrating this reality we discover our own deeper nature. But how is this nature related to the external world that is experienced through the body? The soul that has been thus freed from the body feels itself immersed in a realm of spiritual activity ; and it knows that even in ordinary life its own being lies outside the body, which merely acts like a mirror in making its experiences perceptible. In this way the soul's spiritual experience is raised to the height where a new element of reality becomes apparent.

For thinkers such as Dilthey and Eucken, the spiritual world is the sum-total of all that men experience as human culture. If this is really the only spiritual world accessible to us, the foundation of thought implicit in the scientific approach is taken from under our feet. For the scientific outlook, the world is so arranged that the individual physical human being appears as a comprehensive unit towards which all other processes and beings of nature point. The world of culture is merely what is created by this physical individual; it has no superior unity of its own, transcending that of the individual human being. Spiritual science, as here understood, points to an experience which the soul may have independently of the body. And this, too, reveals itself as having an individual nature. It appears as a Higher Man, for whom the physical body is an instrument. The spiritual experience of the soul, when the soul is set free from the body, is realised as a spiritual human unit which is contained by the spiritual world as the body is contained by the physical.

The soul knows, too, that it stands in a certain relation to the body. From one point of view, the body appears as a cast of the spiritual nature, so that one may venture a comparison with the shell of a snail. From another point of view, the soul-spiritual element in the body appears as the sum of the forces of a plant, which, after it has blossomed into leaf and flower, concentrate in the seed in order to prepare a new plant. One cannot have experience of the spiritual man without knowing that he contains something that will develop into a new physical man. This man is one who, from out of his bodily experiences, has accumulated forces which cannot come to expression through his existing body. The body has indeed given the soul opportunities for experiencing the external world in ways which influence the spiritual man; but the body is too rigidly organised for the spiritual man to be able to remould it after the pattern of the experiences he has had. Thus there remains hidden in the human being a spiritual being that contains the germ of a new man.

*

Thoughts such as these can only be touched on here. They point to a Spiritual Science conceived after the pattern of Natural

Science. The student of this science will behave rather as the botanist who studies the plant, noticing how it strikes its roots, unfolds its stem and its leaves, and develops its blossom and its fruit. In the fruit he finds the seed of a new plant. And when he sees a plant, he looks for its origin in the seed which comes from another plant. So the spiritual scientist will trace the steps by which the human being, apart from his outer life, develops also an inner being; he will find outer experiences dying off as the leaves and flowers of the plant die off; but in the inner being he will discover the spiritual kernel that hides within it the possibility of a new life. In the infant that enters life, he will see the return of a soul that left the world through death. He learns to recognize that what is transmitted to man in the stream of heredity is only the material on which the spiritual man works in order to bring into physical being the seed-like element from a former life.

From such an outlook on the world, many psychological facts will be seen in a new light. Numerous examples might be given; here we shall point out only one. Let us notice how the human soul is transformed by experiences which, in a certain sense, represent a recurrence of former experiences. Say that at the age of forty someone re-reads an important book which he first read at twenty. He will do so as quite a different person. And if he honestly wants to know the reason for this he will find that what he assimilated at twenty from the book continues to live in him as part of his being. He has within him the force that lives in the book—a force which he finds there when he reads it again at the age of forty.

It is the same with the experiences of life. These become part of the man himself. They live in his ego. We see that during a single life-time this inner strengthening of the higher man must remain spiritual. Yet we can also see that this higher man strives to become strong enough to find expression through his bodily nature. The rigidity of the body prevents this from being accomplished in one lifetime. But the kernel of a new life, formed from what has been accomplished, lives in the inner man in the same way that the seed of a new plant lives in the plant.

So it comes about that when the soul gains experience of living independently of the body, in a spiritual realm, the realities of this realm rise into consciousness, in the same way that the past rises into memory. And these realities are seen to reach beyond the span of a single life. Just as my present consciousness contains the results of bodily experiences in the past, so the whole course of earthly life, including the particular form of the body, is shown to have been shaped by the spiritual being that existed before the body was made. And this existence proves to have been one in a purely spiritual world, where the soul dwelt before it was able to develop in a new earthly life the germinal capacities engendered in a previous one.

Only by shutting our eyes to the obvious fact that the human soul is capable of developing its forces can we refuse to acknowledge the

testimony of a man who says that through inner discipline he has come to know a spiritual world beyond the bounds of everyday consciousness. And this knowledge leads to a spiritual apprehension of the world from which it becomes directly evident that the true being of the soul lies behind ordinary experience, and that at death this true being behaves as does the seed of a plant when the plant dies. It leads also to a recognition that the human soul goes through repeated earth lives, and between these lives leads a purely spiritual existence.

Seen from this angle, the spiritual world assumes reality. It is the human souls themselves that carry over the fruits of one cultural epoch into another. The soul enters bodily life with a certain inner organisation which undergoes considerable development. We must not let prejudice blind us into attributing this development merely to heredity. The cultural life which for Eucken and Dilthey represents the spiritual world is so constituted that it flows on in unbroken sequence. But into this stream of continuity come the souls who bring with them, in the form of innate dispositions, the fruits of their earlier lives. These souls assimilate, by the ordinary processes of learning, the developments that have taken place in the physical world while they were living a purely spiritual existence.

*

A full treatment of all this is not possible in an historical survey. I would refer anyone wishing for further information to my works on Spiritual Science. These, it is true, attempt only a very general account of the philosophy here outlined. Even so, I think it is possible to see from them that this view of the world rests on a serious philosophical basis, and that we can rise from it to the direct observation of supersensible realities.

The history of philosophy itself points to this world-view. The course of philosophic thought demands an outlook which cannot be reached in a state of ordinary consciousness. There is ample evidence in the writings of representative thinkers that the self-conscious ego has been scrutinised from all angles by the methods of ordinary consciousness. Why such an analysis can lead only to blind alleys is not the concern of an historical treatise. The historical facts, however, show that the ordinary consciousness, however we may regard it, is unable to resolve the questions which nevertheless it finds itself obliged to ask. Why the usual scientific outcome should lack the means of handling such questions—that is what this closing chapter is intended to show. Besides this, it should indicate what these philosophies were unconsciously seeking. From one point of view this closing chapter no longer belongs to the actual history of philosophy; but from another point of view its justification is clear enough. The upshot of this book is that a spiritual-scientific outlook on the world is demanded by the trend of modern philosophy as an answer to the questions it raises.

To see this, we must consider specific instances of this philosophic trend. For example, Franz Brentano, in his *Psychologie*, laments the deflection of philosophy from its concern with the deepest problems of the soul ; he declares that there is no need for any such limitation. David Hume was violently opposed to those metaphysicians who maintained that they had discovered in themselves a supporting substance for psychic events. "For my part," he declares, "when I enter most intimately into what I call myself, I always stumble on some particular sensation, of heat or cold, light or shade, love or hatred, pain or pleasure. I never can catch myself at any time without a perception and never can observe anything but the perception. When my perceptions are removed for any length of time, as by a sound sleep, so long am I insensible of myself and may truly be said not to exist."

Hume speaks in this way because he plunges into self-observation without having worked on himself. Observation of this kind cannot penetrate to the true nature of the soul. Brentano comments as follows on Hume's words : "This same Hume nevertheless remarks that just as much support for immortality can be derived from his views as from the opposing traditional views." But here we must add that if Hume was right in holding that the soul contains nothing but what he found there, then any such opinion as Brentano's can be a matter only of faith and not of knowledge. For how could any continuity be guaranteed by what Hume found in the soul ?

Brentano continues : "For even if it goes without saying that one who denies substance to the soul cannot talk of immortality in any genuine sense of the word, yet it is not true that the question of immortality loses all meaning if a 'supporting substance' for the phenomena of consciousness is denied. This becomes immediately evident if one considers that, with or without a 'supporting substance,' our psychic life on earth has in any case a certain continuity. If we reject the idea of soul-substance, the only alternative is to believe that this continuity is not dependent on a 'supporting substance'. And the question whether psychic life continues after the destruction of the body will be no more meaningless for us than for others. It is therefore quite illogical for thinkers of this school to reject the question of immortality on these grounds, when what they really mean is the immortality of life rather than the immortality of the soul."

Nevertheless there is no support for Brentano's view if we reject the philosophy here outlined. For where are we to find grounds for the continuance of psychic phenomena if we remain at the level of ordinary consciousness ? *This* consciousness can last only as long as its reflector, the physical body, exists. What may survive the loss of the body cannot be described as "substance" ; it must be some *other* form of consciousness. But this other consciousness can be discovered only by an inner activity that frees the soul from the body. This teaches us that consciousness is possible without the mediation

of the body. Through such activity the soul attains by supersensible insight to the condition in which it finds itself after death. And it discovers that as long as it is in the body, the body itself obscures that other consciousness.

When the soul is incarnated, the physical body acts so powerfully upon it that in ordinary life this other consciousness cannot emerge. This becomes clear when the above-mentioned exercises lead to results. The soul then has to suppress the forces which, emanating from the body, extinguish this other consciousness. But the influence of the body cannot continue after death. It is this other consciousness, therefore, that goes on through repeated lives, and through a purely spiritual existence between death and birth. And from this standpoint there is no need to postulate a nebulous "soul-substance". We have instead the scientific concept that the soul persists because the germ of a new life is prepared in this life, as the seed is prepared in the plant. The present life is shewn to be the basis for a future life, and the true nature of what really persists after death is demonstrated.

Spiritual Science has no quarrel with the methods of Natural Science. But science must admit that its methods cannot lead to an insight into the realm of the spiritual. If we recognise the fact of another consciousness, we shall find that it will lead us to ideas which will give the spiritual world a coherence similar to that which natural science gives to the physical world.

•

It must not be thought that Spiritual Science has borrowed its ideas from any of the older forms of religion. It is easy to be thus misled, because belief in reincarnation is an article of certain creeds. But for the modern spiritual investigator there can be no question of such borrowing. He finds that a devotion to the exercises indicated above can lead to a consciousness that penetrates into the spiritual world. And as a result of this consciousness he learns that the soul has its own standing in the spiritual world, in the way already described.

A study, too, of the history of philosophy, from the time of the awakening of thought in Greece, will convince him that the true nature of the soul must be sought below the surface of ordinary experience. Thinking has proved to be the tutor of the soul, leading it to the point where it is alone with itself. But in bringing it to this point, thinking has made the soul strong enough to enter the profoundest depths of its own being and thus to reach the deeper reality of the world. He who follows the path of Spiritual Science does not attempt to get behind the sense-world by the methods of ordinary consciousness—that is, by mere reflection and theorising. He knows that the soul must be inwardly transformed before it can be conscious of the supersensible world, which until then remains veiled.

He comes to recognise, further, that the source of moral impulses lies in the realm where the soul lives free of the body, and that from there come the driving forces which do not stem from the physical nature of man but determine his actions independently of it.

Once we admit that the ego with its spiritual world lives outside the body, and is itself responsible for the experiences which are encountered during bodily life, we shall find our way to a truly spiritual grasp of the riddle of destiny. A man's experiences are all bound up with his destiny. Let us consider the state of soul of a man of thirty: the real content of his being would have been quite different had he lived a different kind of life. His individuality is inconceivable without the experiences of those years. Even if they have brought him some hard knocks, they have still made him what he is. They belong to the forces that are active in his ego, not to those that meet him from outside. A man lives with colour in his soul and spirit; but he perceives it only when it is reflected by the body. Similarly, he is at one with the causes of a stroke of destiny from the time of a previous life onwards; but he encounters the blow only when in a subsequent earthly life he plunges all unconsciously into experiences which spring from those causes.

In his ordinary consciousness he does not know that his will has anything to do with all this. In a higher consciousness he finds that he could not will at all if that part of his soul which lives in the spiritual world had not willed his fate, down to the smallest details. So the problem of destiny will not be solved by theorising about it, but by learning to understand how in the experiences that spring from a higher consciousness the soul grows together with its fate. Then one will see that the cause of this or that stroke of destiny lies in the seed-kernel formed in a previous life.

To the ordinary consciousness, fate does not appear in its true guise. It takes its course as the consequence of former lives which are hidden from ordinary consciousness. To realise that one is connected through former lives with the strokes of destiny is to be reconciled with destiny.

For a fuller treatment of philosophical problems such as this one, the reader must turn to the author's other works on Spiritual Science. Here we can indicate only the more important results of this science; we cannot give in detail the steps which bring one to the point where it becomes convincing.

*

Philosophy leads by its own paths to the realisation that it must pass from a *study* of the world to an *experience* of it. Otherwise the soul will never cease to be a mystery to itself. We may find an analogy in the grain that develops in the wheat. When it has ripened it may be used in two ways: as a food to be eaten or as a seed to be sown. Similarly, a man's spiritual experience may take either of two roads. On the one hand he may devote himself to a study of the

outer world. If from this point of view he inquires into the experiences of the soul, the essential philosophical questions that must force themselves upon him are: "How does knowledge penetrate into the nature of things? And what can be achieved by a study of them?" This is like inquiring into the nutritive value of the grain. But it is also possible to turn one's attention to the soul's experience on its own account, and then, in so far as this is not diverted outwards but works on actively within, it can lead the soul from one level of being to another. It is seen to be an inwardly implanted driving force, and can be recognised as a higher man within man, who in the course of one life prepares the next. We come to see that this is the fundamental impulse of soul-experience, and that *knowledge* is related to it in the same way that the use of wheat for food is related to its use for propagation.

If we fail to recognise this, we shall fall into the illusion of supposing that by analysing the soul's experience we can discover what the nature of thinking is. This is like investigating chemically the food-value of a grain of seed-corn and thinking thereby to discover its inward nature. Spiritual Science seeks to avoid this mistake by revealing the distinctive inner character of soul-experience and showing how it can enter the service of knowledge, although in this observational knowledge its own primal nature is not to be found.

*

The "body-free consciousness" here described must not be confused with those mental states which are not acquired by the aforementioned exercises, but spring from a lowered form of consciousness—dreamy clairvoyance, hypnosis, etc. In these conditions it is not a question of the soul having experience of a body-free consciousness, but of an abnormal union of body and soul. True Spiritual Science can be attained only when by self-sustained inner discipline the soul finds its way out of ordinary consciousness into awareness of the spiritual world. This means a heightening, not a lowering, of the ordinary consciousness.

By means of such inner discipline the soul can reach the objective which philosophy seeks. This is of no small significance, since philosophy is unable to reach the desired goal by the road it usually follows. More important than the results of philosophy are the forces of the soul which are developed in the course of philosophic work. And these forces must in the end bring philosophy to a point where a recognition of "body-free soul-life" becomes possible for it. Then philosophers will see that the riddles of the world must be not merely studied learnedly; they must be *experienced* by the human soul. But the soul must first attain to the condition in which this experience is possible.

An obvious question arises here. Should ordinary as well as scientific knowledge belie itself, and accept as valid an outlook that reaches it from a province outside its own? But the fact is that

the experiences of this other consciousness are intelligible at once to ordinary consciousness, in so far as the latter does not prevent this by raising walls around itself. Supersensible truths can be *discovered* only by the soul that enters the supersensible world. Once they are discovered, however, they can be *grasped* by the ordinary consciousness. For they link on by necessity to the knowledge which can be gained about the world of sense.

It cannot be denied that views similar to those advanced in this concluding chapter have appeared again and again in the history of philosophy. But in earlier times they appeared only as *by-ways* of philosophic inquiry. It was necessary that philosophy should first pursue every path that could be regarded as a continuation of Greek thought. Then, aware of what it could or could not arrive at by itself, it could through its own initiative point the way to supersensible consciousness.

In the past, such a consciousness was in a sense without philosophic justification. It was not demanded by philosophy itself. But modern philosophy demands it just because of what it has already achieved without the help of this consciousness. Without this help, it has successfully guided inquiry into channels which, if rightly followed, will lead to the recognition of supersensible consciousness. That is why this closing chapter did not begin by describing how the soul speaks of the supersensible when it stands within this realm. Instead, an attempt has been made to trace philosophically the tendencies implicit in modern outlooks on the world. And it has been shown that an active pursuit of these very tendencies can lead the soul to recognise its own supersensible nature.

Translated by M. E. Wakefield.

THE THREEFOLD STRUCTURE OF THE WORLD*

George Adams

The contemplation of infinite universal space—the starry Heavens—is one of the few mystical, transcendental, ultimate intuitional experiences which scientific materialism has not been able to destroy in the human soul. On a clear night when looking out into the open sky, even the least thoughtful man will at some time in his life become philosopher, even the most earthly-minded grow religious. Hence the interpretation given to the celestial Universe by the prevailing culture of the age— theological as in the Middle Ages or would-be scientific as in modern time—is of untold importance. For it attaches itself to one of the deepest and most intimate sources of man's inner life.

A new experience of the great World is coming to mankind today—an experience at once scientific and religious, of deep significance for individual and social life. In every age, the good in human life depends on how man feels himself to be placed in the great Universe. Long, long ago he was aware of manifold Divine-spiritual forces in the surrounding world, weaving in and out of his own life. In later monotheist times there was a more stern and silent feeling of the Divine immanence. During the last few centuries this in turn gave way to a sense of cosmic isolation. Man was cast back upon his own resources. What had once been an element of daily thought and speech, explicit belief and observance—the feeling of himself as a spiritual being, beholden to the Divine Universal spirit,—grew more implicit now. It was retained in the moral bearing of many of those for whom the old beliefs had largely faded. It lived on still, in this indirect way, in many an avowed sceptic and agnostic, though even in this form it has been tending to pass away.

In our century, however, a new awakening to the spirituality of of the Universe and of his own relation to it is coming near to man. All that mankind is undergoing contributes to this change; the social upheavals, the shocks of war, the new relation between East and West, the very disillusionments, searing away the all too confident rationalism of the 18th and 19th centuries—all of these will play their part. There is no aspect of the history of our time which is not relevant to the impending change.

One of the greatest realms of influence in which the change is being wrought is that of Science, and it is with this that the present

*The substance of a lecture on *Earth and Universe in the Twentieth Century*, given by the author at Bedford College, London, on 29th July, 1952, during the Conference, 'The Awakening of the Twentieth Century'.

article will deal. I shall be writing about the scientific approaches to an experience that is of more than scientific import. Some of these learned approaches will no doubt melt away as the direct experience gains force. Like scaffolding, needed for the erection of the Temple, they will be dismantled and forgotten when it is completed. Yet even those who in their deepest intuitions are perhaps beyond the need of these ways of access, should out of sympathy with the spirit of the time respect them.

Science is the outcome of man's active and disinterested approach to the material, sense-perceptible world. If Western humanity had not brought with it into the age of materialism the spiritual gift of thought, the edifice of modern Science with all its technical applications would not have been possible. But in the process, thought itself undergoes a change. Fresh impulses and forces are awakened in the soul; the questions are intensified. The time has now come when from the depths of man's thinking life a new and more intimate relation to the underlying spiritual reality of the World will be evoked. During the period from the 17th to the end of the 19th century, the vigorous application of man's reasoning powers to the elucidation of the sense-world was sustained, consciously or unconsciously, by a religious force inherited from the preceding two to three thousand years of monotheism, in its Judaic and in its exoteric Christian forms. In the 20th century this heritage has faded. Today is needed a renewal of the bond—religious in the literal meaning of the word—between the conscious human spirit and the Divine-spiritual in the great universe.

Along a number of convergent lines Science itself is today tending towards an essential change, lifting out of its too rigid bearings the Newtonian world-picture of recent centuries. Among the factors working in this way, three may be mentioned. First are the changes that have come about, less by speculation than by the experimental discoveries of physics, in our conception of matter and of the matter-moving forces. Second is the deepened understanding of Space itself through progress in pure Geometry. Third is the far more versatile and much enriched idea which we are gaining of the principles of form and structure—of what is often referred to now as *Gestalt*, or of what Goethe called *Bildung und Umbildung*, the forming and metamorphosis of forms. This deepened experience of form comes from at least two directions—from the vast range of biological discovery, notably in the field of Embryology, and, once again, from the development of pure Geometry and other branches of Mathematics.

Space, Time and Matter: these three fundamental concepts were essential to the Newtonian world-picture. Infinite three-dimensional space was peopled, so to speak, with material entities—vast as the heavenly bodies, infinitesimal as the imagined atom—in size and shape self-contained and of finite volume, each with its own gravitational and dynamic centre. Through sundry forces they reacted on themselves and one-another, moving in space, undergoing change

in time. With an instinctive materialism, the scientific thinkers of the last few centuries attributed to such entities, whether large or small, seen or unseen, movements and impacts, attractions and repulsions analogous to those observed among tangible earthly objects, ready to hand and commensurate with man. The modern form of atomism was the outcome.

In the last fifty years the atomic theories have experienced many triumphs—a Pyrrhic victory however, for in the process the supposed atomic world has lost the mechanical and common-sense attributes assigned to it when first conceived by an instinctively realistic and sensual way of thinking. In fact the progress of atomic and electronic physics since Rudolf Steiner's death has justified what he was saying as a young man in the 1880's, in his introductions to Geothe's scientific writings: that it is philosophically unsound to attribute sensory qualities to entities which in the nature of the case cannot become objects of sense-perception. The 'particles' of modern Physics no longer admit of being pictured on the analogy of minute sense-perceptible objects behaving in a 'sensible' way.

This fundamental change in the accepted foundations of Science is only masked inasmuch as work-a-day scientists still find it convenient to retain the mental fiction of tangible electrons, protons, etc., conceived as quasi-sensible objects. Still more is it masked in the public mind, for in the popular presentation of the more recent discoveries the naively realistic character of the atomic entities is upheld, often—it must be admitted—more than is consistent with intellectual sincerity and truth.

Within its given limits, the world-picture of Newton and Laplace, Lavoisier and Dalton, howsoever materialistic, was intelligible and satisfying. At the infinitude of space and time the scientist would pause and go no farther. Here was the common frontier of Science with realms of metaphysics and mystical divination—a frontier agreed and respected. Nay, the existence of this frontier might even enhance the intellectual and moral satisfaction which thoughtful men derived from the classical world-picture of scientific materialism, with its Space and Time and Matter.

But this is of the past. The scientist today has penetrated farther into the Universe of stars, deeper into the mysterious interior of matter, 'un-earthing', in the literal sense of the word, the abysmal powers that lie hidden there. And he is at a loss. For what he finds in stars and atoms is no longer matter in any realistic sense of the word; it is a pure nexus of relations, an intellectual shadow of spiritual thoughts and deeds which as yet elude him. Meanwhile in its outward form, the reality belonging to this shadow impinges on him all the time—often the more painfully for his discoveries. With his thought-shadows he cannot bring forth what is given here—cannot still his hunger, nor even weave the Earth about with electric currents. Something existing independently of all his intellectual

conceits must still provide the carbon and the water, the oxygen and sunlight to build his food ; the copper and the dielectrics for his apparatus ; even the uranium and the hydrogen for his atom-bombs.

Thinner and thinner grow the intellectual abstractions of scientific theory ; more and more potent for good or ill the material and sub-material powers which it exposes.

The outcome of all this is that without abandoning the sceptical and undogmatic frame of mind which it professes, Science today is ready for a deep philosophic change. And there is also a more specific outcome. Most of our scientific analysis is an ascertainment of *forms*—not only forms at rest but forms of movement in Space and Time, forms of dynamic action, forms also of relation pure and simple. In the Newtonian era the ideas of form were dominated by Euclidean Geometry, and by the instinctive realism which attributed reality to self-contained, point-centred bodies and therefore gave preference to forms which might be capable of being filled with matter. Recent developments should free the scientific mind from this bias. Whatever forms in Space and Time—or even purely algebraic forms of relation—can be co-ordinated with the facts, are today 'scientific' if they fulfil this purpose better than others do. The scientific lessons of the last two generations have made the scientific mind more open ; at least they *can* have done so. The limiting conventions of 19th century materialism are no longer binding.

Discovery of the Ethereal

Discoveries of recent times in other realms—notably in pure Geometry and the morphology of living forms—can come to meet this situation in a positive and fruitful way. While the developments of modern Physics (including Astrophysics) tend to make the scientific prospect of our time an uncharted sea, a realm of boundless possibilities wherein one scarcely knows which way to turn, the new Geometry contains at least one fundamental notion in which lies hidden the seed of a clear world-outlook. This is the notion of *polarity in spatial structure*—not in the limited external sense, the point-to-point polarities of matter as in the bar-magnet or the positive and negative electric poles, but in a deeper and subtler meaning of the term. The Goethean experience of polarity in this deeper and more universal sense is re-born in the thought-forms of the new Geometry, raising it on to a scientific level which was not yet possible in Goethe's time.

The era of Galileo and Newton tended to blind men to an aspect of Nature and human experience which is in truth as elemental and natural as is the realm of heavy, point-centred bodies on which the Newtonian system was built. It is the aspect of the vast expanse—of the expanding, buoyant and uplifting forces which pervade the World. The day is near at hand when it will be scientific common-

place that the one is not possible without the other, any more than outbreathing without inbreathing or systole without diastole.

For the Newtonian cosmology, the vast distances of the spatial Universe were, to begin with, mere empty space. Space in its limitless expansion was the mere container—as in the Irishman's answer, the packing-case without sides or top or bottom. Material objects, howsoever loosely packed, were the real contents of the spatial hamper. That in the vast expanse *as such* there is something active—that there are influences streaming inward from the celestial periphery towards each living centre and not only the other way—did not occur to the materialistic imagination. (The latter speaks of cosmic influences only when they come from other point-centred bodies, however far away—from Sun or stars, or from some cosmic dust pervading the interstellar spaces.)

Yet the existence of these forces from the vast expanse is not foreign to man's elemental feeling. Intuitively every one of us who breathes more deeply when going out under the starlit sky, or from a hilltop looking out over a wide horizon to the sunset, is aware of these expansive forces. But the instinctive bias of attention, in Western civilisation during the last five hundred years, has been the other way. It was as though the spirit of the time diverted man's thinking from the ethereal vast and made him rather concentrate his personality by an enhanced attention to the solidity and weight of earthly things. A glance at the decorative arts of the 17th and 18th centuries—the ponderous furniture, the strange overload of ornament, the preference for spherical and heavy forms—confirms this, the more so when contrasted with the delicate aspiring forms of Gothic architecture.

Such was the trend of man's spatial feeling during the time when the Newtonian cosmology was taking shape. That time is at an end, and, incidentally, there are features in modern art—in sculpture and in plastic treatment—which bear witness to it. The spirit of mankind is ready now to re-awaken to the ethereal reality which pervades the World. It needs only a clear scientific way of access ; man of today would lose the ground beneath his feet if he could not take with him into each new phase of his experience the scientific clarity which he has gained.

I have described in other writings* the part which modern Geometry is destined to play in this transformation, and will but briefly recapitulate one or two essential features. During the 19th century it was discovered that the ideal structure of space is, as it were, self-

**Physical and Ethereal Spaces* ("Anthroposophy" Quarterly, Vol. VIII, 1933); *Goethe and the Science of the Future* ("Golden Blade", 1949). Also (in collaboration with Olive Whicher) *Plant Growth and the Forms of Space* ("Golden Blade", 1950) ; *The Living Plant and the Science of Physical and Ethereal Spaces* (1949) ; *The Plant between Sun and Earth* (1952).

polar; that in this structure the infinite expanse, in other words the plane, plays an equivalent part to the infinite contraction, the point. Thus it is wrong—or at least arbitrary—to conceive space as though the point alone were the ultimate entity from which all spatial dimensions must take their start. Space is formed inward as well as outward; it is a balance of expansive and contractive principles of formation.

From this discovery in pure thought it is but a further step to the perception that in the real Universe there are potent forces, the spatial character of which is peripheral or planar, in polar antithesis to the centric (gravitational, electro-magnetic) forces of earthly matter. The way is thus open to the re-discovery of the 'ethereal;' and then the simple phenomena of Nature show that receptivity to the ethereal is the essential characteristic of Life. An open vista here confronts the scientific mind, which for the last hundred years has had to wander through a tangled undergrowth of argument and counter-argument, often fruitless, as between mechanist and vitalist interpretations.

In the present essay I will not enlarge on this again, but will sum up by saying that the inherent polarity of space, seen to begin with in pure thought, will from now onward be discerned also in the real phenomena of Nature and in the motive forces which pervade the ever-changing scene. This is a scientific step for which the time is ripe. It coincides with other interesting features in the psychological development and in the spiritual interests of modern man.

During the last hundred years, for example, there has been a newly awakened interest in man's latent powers of supersensible cognition, and in the 'supernormal' phenomena which became the subject-matter of 'psychical research'. Many of the so-called 'physical phenomena' of this domain will cease to appear miraculous or contrary to Nature when the dynamic and geometrical structure of the ethereal forces becomes known. It is convenient in this connection to use a technical term, the scientific meaning of which becomes obvious once the reality of the ethereal forces is recognized. Out of the universal field of the ethereal—in other words, peripheral—forces, a single living entity gathers to itself, focussed in its own physical existence, a certain portion, more or less complex, more or less potent according to its kind. This, while remaining in connection with the universal field, is relatively self-contained and lasting during the period of the creature's life. It can therefore be called the 'ethereal or vital body' of the creature—a term which need no longer be taken merely as an item of doctrine, theosophical or anthroposophical, for it has ascertainable scientific meaning in the present context. ('Body' implies self-containedness, without separation from the wider field from which the body derives its substance. The present use of the term is indeed not unlike the use of the word 'body' in other fields of Science, as for example in the Theory of Numbers.)

In this sense, therefore, man himself has an 'ethereal body,' and it will now be seen that at least some of the physical phenomena of psychical research are due to a diversion from its normal functions of a portion of the ethereal body of the medium or other human agent. The levitational phenomena are brought about by a displacement—often achieved at the expense of normal vigour in mind and body—of ethereal forces, in spatial and dynamic action polar-opposite to gravity, which in normal bodily life and volition we are constantly applying to the movement of our own body. The seemingly magical character of these phenomena is found to have its true home in the normal and healthy life of every man, and, indeed, in varying degrees, of every living creature.

Yet more important than this: the discovery of the ethereal in surrounding Nature is coming at a time when in their ethical and aesthetic ideals human beings are intuitively seeking to develop the more imaginative faculties of the soul. In the West, and no longer only in the East, methods of meditation are being looked for, whereby those powers of the mind will be awakened which can experience the active life of thought even when unsupported by the material stimulus of sense-perception.

To describe what this modern phase of spiritual endeavour signifies in relation to Natural Science, a slight digression is necessary, explaining the terminology which cannot be avoided if one desires to speak of these things in a natural and simple way.* In polar contrast to the centric realm of weight and matter, the ethereal, expansive forces may be described as a domain of universal 'light'—light in the double signification of light and lightness. Present-day physical definitions bring in a difficulty here, but it can be surmounted. Just as the word 'lightness' or levity in this connection does not mean merely a relatively small weight but the very opposite of weight—a force of positive buoyancy, planar and not centric in character, the qualitative opposite of gravity—so the word 'light' refers not to electro-magnetic vibrations but to a primal activity of quite another nature, peripheral in origin, of which these vibrations are in some sense a reflection, a kind of resonance, evoked in the Euclidean and centric realm. The relation is not yet fully understood, but the phenomena of life and the ideas of modern geometry make it increasingly clear that there is this primal realm of 'light,' which was intuitively known to Goethe and of which occult traditions have always told*.

In all conscious life the soul lives in this ethereal element of universal 'light.' External sense-perception is awakened where this light is thrown back by the darkness of matter. In the materialistic consciousness man is not aware of the light directly, but only of this reflection. Yet even here, thought is ethereal in origin and nature.

*See *Man or Matter*, (esp. Ch. XIV.), by Dr. E. Lehrs. (Faber, 1951).

Intensified by meditative practice, the life of thought awakens in its own primal element. Applied to material phenomena alone, it is held spellbound by its own shadow, stung to awareness by impingement on what is different from itself. Thought, conscious only in the immediate wake of sense-perception, is like the wave that breaks when dashed against the shore, shining as foam in the moment of its destruction.

Man is about to awaken to the ethereal light that pervades the life of surrounding Nature; the very progress of external Science prepares him for this further step. And at this moment, in his own inner life, he feels impelled to evoke what is deeper than the splash and spray of ever-changing, passively received impressions; to go down into the silence where from the depths of his inner nature the yet unexhausted source of universal life, which conveyed him as a little child 'out of the everywhere into here', springs into conscious realization.

Polarity of Earth and Heaven

Let us now try to imagine what will be man's cosmic outlook when the things here foretold—which, once again, lie near at hand—have been achieved. A liberation will be experienced, comparable to what was felt at the beginning of the Copernican era. The Copernican world-outlook enhanced man's consciousness of self in admiration of the vastness of surrounding worlds, setting him free as it were by separation from the world. That which will now ensue will be, on the contrary, a liberation from this loneliness, and from the sense of meaninglessness in face of an indifferent Universe. Man who awakens to the ethereal inpouring, as it flows inward to the Earth from the surrounding Heavens, will recognize in this fount of life what is akin to his own inmost origin and being.

For a long time to come he will still say 'I' to what finds expression in his earthly body. Yet he will now begin to know that this is partly Maya: that the true 'I' is not only here, where the body is, but is at one with the ethereal life of the Universe. The feeling of 'I' is in a way turned inside out—to use a mathematical expression, polar-reciprocated—in passing from the physical to the ethereal experience of the world. For in the latter the 'I' is outpoured over all the world. This is the well-known early stage in mystical experience, of which a modicum is given to all truly religious natures. The feeling of at-one-ment with the world is due to a momentary liberation of the ethereal body from the physical, to which in the normal conditions of our time it is closely bound.

We are here touching on a transmutation which will take long historic times for its completion and will also not be free from pains and perils. Yet even the now dawning scientific recognition of the ethereal in the spatial Universe will bring to modern man, however

bound to the earthly body he must still remain, a new feeling of oneness with the Universe around him. In ancient and medieval times man's knowledge of the world was regional or local. At the beginning of modern times this was changed to an Earth-consciousness—an awareness of the entire globe. So will it now be changed from an Earth-consciousness to a consciousness of the Cosmos. The modern interest in cosmology is an indication of this. How many people are reading learned books about cosmic radiations, distant galaxies and an expanding Universe, the scientific arguments for which they are scarcely able to understand, however popularly stated! Yet in so far as the thought-pictures are material and earthly—which for the most part they still are in the orthodox astronomical speculations—the consciousness they evoke is still an earthly one.

The difference lies not in the scale of magnitude but in the quality of the experience. A truly cosmic experience, not dependent on scientific technicalities but more immediate and naïve, springing from everyday perception of surrounding Nature, will be the outcome when the vast periphery of the Heavens is recognized as the ethereal ocean whence spiritual gifts of life pour inward to the Earth. It is not merely by gazing out into the Heavens, even with the aid of telescope and spectroscope, that we awaken to the celestial realities. It is by contemplation of the living creatures which surround us upon Earth, every one of which is like a focus of ethereal and universal life in its own kind, in form and metamorphosis and habit bearing the signature of the peripheral forces with which it is endowed.

It is a fundamental and purely human experience; the scientific hindrances only need to be removed for it to become accessible to all human beings of finer feeling. Without falling back on doctrinal language—without departing from the simple data of experience—we can describe what is felt when the ethereal in the great Universe is recognized in its reality. In these inpouring forces of life and light man feels what in former times would have been called the bounty and sustaining power of the Divine Father.

In the realm of matter, all heavy bodies on the Earth are sustained by the ground beneath, on which they lie. But life is not sustained in this way from below upward. A body which needs only this kind of support is in fact dead and not alive. What is alive is sustained by the peripheral and not only by the centric forces. This other 'sustenance', belonging rather to the realms of bouyancy than of weight, is a sustaining from without inward, from above downward, and is a sign of the living body's continued impregnation with the peripheral and cosmic—in other words, with the ethereal forces. In the spiritual structure of the world the latter are more nearly related to the continuing activity of the Divine creative powers than is the dark world of matter. This too is spiritual in origin and essence, but here the Divine-spiritual is far more deeply hidden.

Cold and indifferent matter is a realm in which the spiritual finds expression, to begin with, as the antithesis of spirit: it is the opposition, the negation with which the spirit confronts itself in order thereby to achieve its more distant evolutionary purpose. In the very existence of inert matter the greatest riddle, that of suffering and evil, is involved. In the ethereal on the other hand, as it pours in from the far reaches of the Heavens, we meet to this day what comes as a direct emanation of the Divine and spiritual life to which the Universe is due. It is the age-long renewer of life. Life for this very reason is transient, due as it is not to a substance inertly present, materially stored since the beginning of time, but to an ever-fresh infusion from a realm immaterial—dependent on the gift, ever and again renewed, of Divine creative bounty.

In the ethereal, therefore, when the spirit of man awakens to it, he cannot but experience a flood of thankfulness for the gift of life. He finds again, not in mere pious convention or in a shadowy echo of the devotional life of pre-scientific times, but in his own genuine experience, the coming of the daily bread from Heaven,—the immanence of That, which in the beautiful language of olden time was named the Heavenly Father. He finds the living Ground of the World, sustaining life not in the way of matter from below upward but from the Heavens inward, to the end that living creatures upon Earth do not crumble into dust of atoms, and that the Spirit is not lost in the Abyss but is held poised between weight and light.

Poised between weight and light—such is the essence of the life of man, in the new cosmic experience which is now approaching. For the awakening to the ethereal expanse will not mean that the earthly-material concentration to which man owes his personality is forgotten or that the material phase of his life, enhanced as it is by modern technics, is abandoned. It rather means that man will have found the necessary other pole—we cannot say, the 'counter-weight', for by its very nature it is the opposite of weight—with which to balance the descent into the hidden powers of the sub-material realm which is his destiny, by no means yet completed, amid the technics of an electro-magnetic age. He will discover the polarity of the spatial universe—centre and periphery, or weight and light—reproduced in his own nature. As a fulfiller of the Divine intentions of evolution he has to live his life between the opposites—matter and spirit, Earth and Heaven. In the very form and polarity of his earthly body he will now find the signature of universal structure.

His free and upright carriage, the straightness of his limbs, the unique way in which the lines-of-force of earthly gravity pass through the axis of his body, relate him more deeply than any other earthly creature to the hidden depths of matter—even to the powers of the Abyss. By this descent into the very depths of Earth with his own

powers of will, he achieves his manhood. His head, on the other hand—organ of light-filled thought, which is ethereal, celestial in nature—reproduces even morphologically the spherical form of the celestial periphery. In this respect, in his head-nature he is a stage nearer to the Divine creative wisdom, the origin and source of all things; his limbs, on the other hand, connect him with the future—with the inscrutable purposes of evolution, for the sake of which an outer world is there at all.

Thus there emerges a cosmology embracing past and future, giving essential meaning to the course of Time and to the suffering and striving in which man's earthly destiny involves him. When he experiences the ethereal aspect of the vast Universe, man is also awakening to a realm which transcends the limited span of his earthly life. The changed experience of Space gives rise to a new feeling of Time. In the ocean of the celestial light man is brought nearer again to his own birth and death—not as barriers but as gateways from and to another form of being. The whole conception of what physical incarnation means, undergoes a change.

The evidences of another branch of Science will reinforce this direct feeling of the human heart. The facts of Embryology reveal that the formative process in its early stages works peripherally, moulding the living body from the surface inward, as though the germ-cell were acting not as itself a complicated source of form but as the inmost focus of a surrounding formative space. For such a process, as I have shewn in other writings, the concept of 'negative' or 'ethereal space' gives a very clear theoretical foundation. In every form of life, animal or plant or human, generation represents a fresh infusion of the material world with life from cosmic sources. When this is understood the physical and spiritual aspects of the entry of a human soul into earthly life will appear in their natural relation. It is once more, even as to the forming of the outer body, a coming 'out of the everywhere into here'.

The difference in this regard as between plant and animal and man concerns the way in which this gift of universal life is or is not accompanied by a more or less individualized life of soul, or as in man by a self-conscious spirit seeking incarnation. For man, the forming of the 'ethereal body' becomes as it were the ark in which he himself, a spiritual individuality from spaceless and timeless realms, sails the celestial ocean to alight on an earthly shore.

So too the gate of death: when man looks out into the starry spaces, not as mere physical emptiness but as the ocean of the ethereal, he will relate himself in a quite different way to that future moment when his ethereal body will be released from physical anchorage and on the wings of the expanding ether he will sail forth again into the spiritual realm whence he came.

The Middle, Rhythmic Realm

Awakening to the ethereal will therefore signify a release for modern man, who is imprisoned in a space-bound world. For all its infinitude, the purely physical (Euclidean, Newtonian) idea of space is a confinement—a separation of the spirit from the cosmic life. Ethereal experience of Space will release man into a more intimate partaking in the life of Time. Here, from the scientific aspect too, a new gateway is being opened. Aware only of the pointwise aspect of space, picturing matter in its atomistic aspect, a merely physical Science makes of Time the irreversible co-ordinate, with the progression of which, ordered and differentiated forms are levelled out. Less probable but more vital forms give way to more probable and less vital; the world runs down, to the dead level of maximum entropy.

Precisely this relation between Space and Time, whereby the onward course of Time tends like an all-consuming flood to annihilate individuality of form and to confuse the atoms in a turbid stream, is radically changed when the ethereal, the other pole of space-formation, becomes known. In the ethereal the flow of Time does precisely the opposite; from the periphery inward, individuality of form is ever and again renewed. Space is not stocked from the beginning with so much created matter, hedged in by an infinite yet rigid framework; in the ethereal foci—the seeding centres of fresh life—the gateways are for ever being opened, and Space becomes the open garden through which the springs of life pour in and out.

For the mere physical concept of Space—from Newton to Einstein—Time had the tendency to become an added spatial dimension. Not so when the polarity of Space is experienced. Time and the polarity of Space are the interpreters of one-another. Hence Rudolf Steiner gave two seemingly distinct explanations of the ethereal body. He described it on the one hand as the *Time-body*, and on the other hand in its spatial aspect as *peripheral* in nature—a product of forces working inward from the vast reaches of the spatial Universe and thence endowing the physical body with life and form.

The new experience now coming to mankind will therefore also be an entry into the inwardness of Time, both in the individual span of human life and in the consciousness of cosmic cycles and historic times. These, for our life on Earth, are measured out by the rhythms of the solar system—the day, the month, the year, the interweaving planetary cycles and the precession of the equinoxes. A realm of circling, in- and out-breathing movements is intermediate between the Heaven of fixed stars and the depths of Earth. The simplified heliocentric picture all too easily makes one forget the in- and out-breathing, so that we think in terms of circles only, or circles slightly modified into ellipses. A comparatively abstract geometrical thought-picture replaces the more realistic geocentric aspect. The actual phenomena—the planets in their circling and looping

movements drawing in towards the Earth and away—become significant when it is recognized that the visible planet marks the approximate boundary of an ethereal planetary sphere concentric with the Earth, breathing out and in as the planet recedes and draws near again. The same applies, though in another way, to the seasonal relations of Earth and Sun. The far more concrete and organic interplay is too exclusively replaced in the modern mind by a geometrical thought-picture—the inclination of the Earth's axis to the ecliptic.

The recognition of the ethereal will here be opening the way to an even more essential experience. Man will become aware of the direct relation of his own heart and breathing—the middle, rhythmic system of his life—to this middle region of the Universe, the organism of the Sun and planets. A comparison will make the connection clear. In the realm of those polarities which are known to Physics—positive and negative electricity, north and south-seeking magnetic poles, or even the play of kinetic and potential energies in mechanics—rhythmic processes arise, to the mastery of which our modern technical devices are largely due. Yet all of this—from the simple swing of the pendulum to the most complicated harmonics, the alternating currents of electricity, the subtle pulsations of the electro-magnetic field—is still within the earthly, physically spatial realm, material or closely bound to matter. The Universe, involving not a dead and isolated Earth but the Earth in its living relation to the Heavens, is imbued with quite another kind of rhythmic process, wherein the swing of the pendulum—to use this simplest image—is no longer to and fro from one point to another along a line, but between centre and periphery in concentric spheres.

This is the primary, physical-and-ethereal, earthly-celestial polarity, giving rise to those in- and out-breathing rhythms whereby the spirit from the celestial Universe descends into matter and the material world in its living forms aspires to receive the spirit; whereby again at other times each of them tends to withdraw into its own domain. The movements of the planets, the annual changes in the relation of the Sun to the northern and southern hemispheres, the rhythm of the lunar phases: all these belong to the manifold and subtle 'rhythms of the spheres' whereby the Earth is in communion with the Heavens.

The relative validity of the Copernican, physically spatial explanations is not here in dispute. In their disarming simplicity, however, these explanations act as a blind, masking another and more vital aspect which will be scientifically understood when the *mutual* relation of centre and periphery in the spatial Universe becomes known. A rhythmic interplay between polarities cannot be recognized if one is conscious only of the one pole and unaware of the existence of the other. This is precisely the situation man has been in during the last few centuries with respect to those activities as between Earth and Heaven which are in fact nearest to his own heart

and life. Conscious of the centric, earthly, gravitational pole alone, he is obliged to relegate this ebb and flow of cosmic life to a realm scientifically unexplained, related to the deeper, more poetic levels of his inner life ; or else he re-interprets it as the result of outward and indifferent causations, such as the angle of twenty-three degrees which 'happens' to have been established between the planes of equator and ecliptic.

Knowledge of the ethereal will be most of all important inasmuch as it awakens man to these melodies and rhythms of the Earth's intercourse with the Heavens. For in this realm the human soul is nearest to the Divine ensoulment of the great Universe :

Sit, Jessica : look how the floor of heaven
Is thick inlaid with patines of bright gold.
There's not the smallest orb which thou behold'st
But in his motion like an angel sings,
Still quiring to the young-eyed cherubins.
Such harmony is in immortal souls,
But whilst this muddy vesture of decay
Doth grossly close it in, we cannot hear it.

In man's relation to the encircling round, through which the Sun and sister planets weave the celestial virtues in and out of the life of Earth, we experience a human realm which the wisest and the simplest among men have in common. Receiving from the living Universe, man feels in his heart the pulse of universal life.

In the *Calendar of the Soul**—a book of weekly verses for meditation through the year—Rudolf Steiner tried to convey what the human being of our time can become conscious of in this middle realm. It is the realm where man encounters that aspect of Divine and universal being which has to do not only with his own destined span of life but with the Avatars—the loving inclination of the Gods from time to time towards men—and even with the deepest, ultimate descent of the Divine into human life. For in the course of earthly evolution the universal Love was prepared to enter into the 'winter of our discontent,' to share with mankind the phase of uttermost contraction. Thus since a certain moment the Earth herself has been imbued with celestial power, no longer merely receiving from the Heavens but responding with a gift of resurrection.

In a new way, and by direct experience, this will become known to modern man when, by awakening to the ethereal, he achieves that communion with universal Nature towards which the scientific age in its deep underlying impulse has been tending. Thus a renewal of Christianity is drawing near from a quarter which, though little dreamt of in evangelical tradition, will in the true sense of the word be an evangelical fulfilment. In this fulfilment the extreme spiritual trials of the present century may find their meaning and their resolution.

**Anthroposophischer Seelenkalender*. Two English translations have been published : by Mrs. E. Bowen-Wedgwood (out of print), and by Mabel Cotterell (1948).

FANTASIA ON THREE VOICES

A. C. Harwood

IT is probably best to describe this particular experience in the way it came to me. There is an unconscious art, only too little perceived, in the unfolding of the whole life of a man, and within it isolated experiences or chapters have often a dramatic development which is generally forgotten when the whole landscape of events becomes plain. Occasionally, however, even to the less perceptive, the form of events is so striking that it becomes inseparable from the events themselves. For me this was the case with the particular experience which I wish to describe. I shall therefore try to recapture its growth and clarification, even more than the historical or moral lesson which I afterwards saw that it seemed to convey. Indeed, the latter is so unimportant compared with the mood which the experience created that I shall probably say nothing about it at all.

I suppose everyone has at some time lifted the receiver of a telephone to make a call, only to find himself a dumb participant in an intimate conversation. That was precisely the sensation that I had when, waking from a particularly deep sleep in the middle of the night, I first became aware that I was listening to a conversation between three voices. The difference, however, was that whereas on the telephone one's better self tells one to overcome curiosity and slap the receiver down, I knew on this occasion that it was the earnest and imperative desire of the three voices that I should be an auditor ; in fact that the conversation could not take place unless I was myself listening to it.

On the first occasion this amounted only to a feeling or intuition ; I had no idea of the reason. Later, however, when the conversation, which almost always ended abruptly, was continued at irregular intervals, I became fully conscious of why I had to be present. The three voices were not all speaking the same language, and could communicate with each other only through my mind.

Each of them, also, had a different relation to my consciousness, which took me some time to discover. The first was certainly speaking Greek—ancient Greek—but with a pronunciation quite unfamiliar to me, which it would have taxed my utmost efforts to understand or translate. When I tried to do so, however—and even on the first occasion I did distinctly catch a few words like 'city', 'king', 'palace' and 'child'—the voice became fainter, and the more I tried to understand it intellectually, the more it dwindled until it reached almost complete inaudibility. If, however, I gave myself up entirely to pure listening, merely devoting myself to the sound and form of the words, the voice itself underwent some magical

change, and began to speak in a kind of broken English, though broken only to the extent that I was unable to repress my normal habit of listening for the sense in the sounds of the words.

This was extraordinarily difficult to do, so that on the first few occasions the conversation was extremely fragmentary, and I often had the impression that the voices were impatient with me. Even when the first voice became English, I still had to listen to the sounds and not think of the meaning, and in my own language this was even more difficult. You will, of course, at once ask, How then did I know what the voice said? The answer is that for the most part I remembered the sounds afterwards, and so worked my way backwards to the sense. No doubt there was much that I missed, but it never failed to astonish me that I remembered so much.

In the first few conversations the first voice did most of the talking, though the balance afterwards changed. From this voice I began to form a very clear picture of a small town, not much more than a collection of farms, but among them was one larger farm built of stone, which was dignified with the name of a palace, where the speaker's father had lived. He was sufficiently important to be called the king of the community, and his palace was the wonder of the whole district. The voice spoke very much of a happy childhood there, of going out to the hills with his father's shepherds and goatherds, and of the glory of standing by his father, whom he plainly adored, when the community gathered together for some sacrifice or festival, in which his father played the leading role.

But there was a cloud in all this sunshine. I gathered that when he was still quite a young boy, this beloved father had left him—whether through death or for some other reason was not at first clear. At all events, from that time onward the place became partly deserted. The roofs of houses and barns fell in, and grass began to grow in some of the streets. The voice seemed especially anxious to impress this change on the other two, who at first spoke only occasionally, and indeed the early conversations were mainly a monologue from the first voice.

I must mention that from the first the voices seemed to come from different directions of space, yet the direction was not so much conveyed by a three-dimensional sense of the place or origin, as by a peculiar tone or colour in the voice. The first voice, even when it was loudest and most insistent, never failed to give me an impression of the blue haze of distant hills seen across a broad valley from a great height; the third had in it the quality of clear and bright sunshine, as of a yellow sun between snow clouds on a frosty day; the second was marked by a kaleidoscopic change of tone colour, and sometimes struck me as being almost chameleon-like in taking on the tones of the other two. This voice had also the property of speaking the most perfect English but always with something of a foreign intonation, as though a most gifted linguist had learned the language with absolute mastery, but too late in life to acquire the native accent.

Those conversations were always the easiest for me in which the second voice predominated, because it made no special demands on me, except that of not being confused by the quickness of its speech and the constant metamorphoses of tone. It was like listening to an air played on a number of successive instruments, though of course the transition was not abrupt, but organic.

At first this second voice seemed principally interested in establishing a kind of communion or identity with the first voice, and the eagerness of its agreement came with the overwhelming suddenness of torrential rain. The similarity which developed between the histories of the first two speakers was remarkable. It appeared that the second had also been the son of a king and had been intensely devoted to his father. He also spoke of a dream childhood: there was a castle or palace, too (in both cases they were near the sea, and ships were always coming and going), and then there came the same strange and tragic disappearance of the father. Here also it seemed there had been a journey or visit abroad, which caused a separation before the final catastrophe occurred, though in this case it was the son who went away.

They spoke at first very guardedly of the catastrophe, partly as though they wished to shelter someone who had played a particularly disastrous part in it—I gathered that this person was a woman—and partly because it seemed they were afraid of giving offence to the third speaker. It seemed that this speaker was not in the same position as the first two, but had been an actor, in a different role, in a similar catastrophe. As the first two speakers established more and more firmly their identity of situation and interest, they turned with ever-increasing eagerness to him, as though he could do something tremendous for them—giving *light* was the phrase mostly used by the first speaker, while the second spoke chiefly of death, and the need for *life*.

The third speaker was for me the most exhausting of the three to understand and interpret. This was not because he spoke a foreign language—he spoke English with the same mastery as the second but also with a native accent—but because his thoughts came with such rapidity and compulsive power that they almost seemed to shatter the words in which they endeavoured to express themselves. They forced their way into the words like the lightning that rives the oak which gives it passage to its home in mother earth.

With this speaker I found nothing but incoherence if I listened to the sounds, as with the first. But if, as far as possible, I tried to neglect the sounds and go direct to the thought of the speaker, the voice then spoke a language more or less intelligible both to me and to the other two voices. This was, however, exceptionally hard work, and it was some time before I gathered anything more than that the voice was that of an older man, and that he had himself suffered the same catastrophe which had befallen the fathers of the other two, but whether by natural death or violence was not at first clear.

I have said that there soon emerged an extraordinary similarity of situation between the first two speakers, but this similarity did not extend to their thoughts and feelings. Indeed, some conversations were little more than the repetition of opposite statements by the two. One of the earliest of these was when the first kept saying, "the god told me", which the second countered with "the god told me nothing", and finally, "there is no god". On another occasion the first voice said, "We are nothing; the blood is all", while the second repeated, 'Nothing but I, O God, nothing but I', and this conversation ended with the first voice repeating 'Infinity', and the second exclaiming 'a nutshell, a nutshell'.

During these altercations the third voice spoke very little. I think now that he was waiting for the full sense of identity of circumstance to establish itself between the other two. This came only later, in a very passionate and overwrought conversation in which the first voice spoke of a tremendous conflict of impulses he had undergone in connection with the sinister figure of the woman who had played a decisive part in the catastrophe. His actual words were: "The blood said strike, and the blood said leave. The limbs and entrails were torn apart. Father blood fought mother blood."

It was at the sound of the word *mother* that the second voice made one of those shattering changes of tone which were more terrifying than the leap of a tiger. "You, you", he shouted, and his voice became almost identical with that which he addressed. "You, you." And then, "A mother, a mother". Lastly, in his own voice, "Me". That was all. There was no repetition, and the conversation ended. But I knew that the two had established a fellowship beyond anything they had dreamed before.

After this the conversations became longer and more fluent, probably because I was already half certain of who the first two characters were, and they therefore found it easier to converse with each other through me. In proportion as they became easier to understand, however, the third voice became more difficult. This was all the more trying because, as the conversation came to a climax, it was plain that he had now the most important contribution to make. Indeed, the first two now hung on his words as though their lives or the salvation of their souls depended on him.

At this stage I made little headway with the third voice until I realised that to what he said I had now to attribute not one, but two, levels of meaning. The voice was telling the story of real events which had happened in his life, but these events had a validity far beyond their immediate application. They had the light of a revelation and the force of a redemption. It was this for which the first two speakers were so earnestly seeking, and which they hoped to gain from the third.

I mention this now, somewhat before its place, because I realised it in a dim kind of way even at the time of the critical dialogue I have

described, and it gave me a clue to the relation of the first two characters which helped me a good deal in establishing a full connection between them. The fact was that they had not expected to meet each other, and had come together only because each of them was seeking the third. At one time it even seemed that each of the two regarded the meeting as a misfortune which hindered his true quest. At the slightest suggestion of this, however, the third voice always intervened. I had the impression that he claimed some magical power by which he believed he had brought them together. I think that my realisation of the relation between the three helped the conversations to develop, quite as much as did the new sense of fellowship established between the first two.

From this time onwards these two spoke to each other with complete frankness, and every detail fully confirmed my conjecture as to their identity. They never named themselves, and because I wish to convey as far as I can the exact impression which the conversation made on me, I will not do so either. A name can be very potent in taking away a man's mystery. But the first spoke of the sack of a great city, of a king returning in triumph to be murdered in his bath. The second caught up the tale with a picture of death lying in wait in an orchard. Almost in unison they told of an absent son, of a wife's treachery, of marriage to a murderer, of revenge on a mother for a father's death. But how hard it was for them to understand each other's sequel!

The first spoke of the bond which bound sister to brother, made stronger by the common will to vengeance. Who could understand the killing which came from killing and led to more killing? But it was the will of the gods that blood must be redeemed by blood. They who commanded would punish the deed, but it was glorious to stand in the chain which stretched to eternity, which neither gods nor men could break. All would go into the darkness, but in the darkness the memory of the deed would give a little light, a little warmth, a little sense of life. "The god thinks thus in me", the voice concluded.

Of course it was often interrupted and I have concentrated the general sense of a number of conversations into one short paragraph. The second voice denied nearly everything which the first affirmed. Indeed, as they argued, or rather asserted their convictions, it seemed as though the feeling that their encounter was a misfortune had been justified, and they had really forgotten their quest.

I fancy this was what the third voice intended, and that the conflict of their opinions was being more educative to them than they themselves imagined. The second voice, for instance, was immensely scornful of the chain of the generations. "Birth and death, the beginning and the end," he kept repeating. And as you had to die alone, so you had to live alone. There was no glory in the deed, only shame and remorse.

"Shake yourself free of all others," this voice said, "do not drag them into the shame. Let them find their own death, even as you

will find yours, but do not take them with you into your own darkness. For there is light on the earth, light in the mind on the earth, but it shows only the corruption and darkness to come. Happy is the man who can live in darkness on the earth, and cannot see the infinite darkness ahead. The light is all, but the light cannot live without generation and the blood ; yet the blood is death and corruption, and swallows up the light. The only glory is to say 'the light is me' ; but the light has no life, the light is eaten by the worm that devours the blood."

It was plainly very difficult for the first voice to understand anything of what the second said. Particularly hard was the saying, "the light is me." "The light is me," it kept repeating, "how can you say, the light is me ? The gods are the light, the men have only the darkness." But it went on repeating, as though it were savouring a new taste, "the light is me, the light is me."

It was from this point that the third voice began to intervene more and more insistently. Generally it seemed to speak in a kind of allegorical language, as though there were no words in which it it could immediately express itself, and it seemed that often the first voice understood this more easily than it understood the more direct language of the second. "You cannot find your own light," the third voice would say, addressing itself to the first, "because you are not yet on the island." And then to the second, "You cannot find the life without death because you are on the hard island." Then to both : "Come to the enchanted island."

From this time onward all three voices began to speak in the short gnomic sentences which were mainly characteristic of the third. Certain terms also became current among them which plainly had a meaning beyond the ordinary. I will not attempt to explain or alter them because again I wish to give as far as possible the exact effect which the voices themselves produced.

For instance, the first voice asked : "Did the vengeance bring light and warmth ? Did it reach the shadow in Hades?" The second : "What are you that demand the vengeance ? Are you the shadow of the light ? Where is the life ?" As they asked these questions, they grew more, more insistent, till I began to feel them like children crowding their questions into the ears of a wise old man. There was a mellowness in the answers of the third voice which carried conviction, even when they were not immediately comprehensible. To the questions I have given, the older voice had always the same answer: "With me there was no vengeance, and no instrument of vengeance. There was only the picture of the deed, the remorse and the return. The picture was the vengeance. The picture spoke to the life within, which is beyond the death. Come to the enchanted island and you will understand."

This last sentence was the refrain which ran through all the answers of the third voice. At first it was a whispered pleading like the distant call of a bird, and when it ceased I sometimes thought I heard

the noise of hovering wings attending it. It grew more insistent and powerful every time some perplexity on the part of the first two voices was cleared away, and the perplexities were many and various.

The first voice, for instance, could not understand the saying, "The vengeance is the picture of the deed in the light," and was still more troubled when the third voice kept saying, "The picture is from within." "But the vengeance is from without," the first voice objected, "how then can the vengeance be the picture ? Where is the death and the darkness which the vengeance brings ?" "The picture is the vengeance in the light," the third voice insisted. "The deed is in the darkness, in the blood ; the picture of the deed is in the light. The picture brings the suffering and the remorse. It brings the death in the warm light, which is harder than the death in the darkness. But the death in the warm light does not kill like the death in the hot blood."

It was the last statement which seemed most to trouble the second voice. "There is the death in the light," it said, "and the death kills. It kills the heat, it kills the life, it kills all." "You are on the hard island," was the response, "where the light is cold. Come to the enchanted island where the light is warm, and gives the life." "But the heat is in the darkness, in the blood." "Not the heat, the warmth; the heat is of the blood, but warmth is of the light. Come to the enchanted island, where the picture is in the light, and the light is not in the cold but in the warmth."

It was this last idea of the light in the warmth which seemed to give the greatest difficulty to the second voice, and the third voice returned to it again and again. It insisted on the difference between the heat and the warmth ; it developed the idea that it was the warmth in the picture which gave both the vengeance and the desire for the return. "The warm light wishes to enter the darkness," it often said. "It wishes to redeem the deed in the dark blood."

Another idea which the first voice found very hard to grasp was that the deed in the cold light is as bad as in the hot blood. "To slay in the cold light is as though one slew in the hot blood. My brother and his friend slew me in the cold light, but I was not slain as your fathers were slain". This last statement brought a cry of horror from the second voice. "But your daughter," it said, "how could she mingle her blood with the son of the slayer ?" "She did not see the son of the slayer," was the reply. "She saw the warm light in the son, and she loved the warm light in him."

It was at this point that the second voice suddenly assumed almost completely the tone and character of the third. "And the son," it cried, "did he see the warm light in her ?"

"He loved her," the third voice replied, "because he saw the warm light in her. And she loved him because the warm light in

the son conquered the dark blood in the father. The return was not in the darkness but in the warm light. The father and the son found the return together in the warm light."

When the voice finished speaking there came the sound of waves falling lazily on level sands, mingled with snatches of aerial music. For the first and only time a fourth voice intruded, a voice of extraordinary clearness and purity, like sea water lying unruffled in a rock pool on a sunny day. But it had also a tang, a resistance, like the sea air. It said only one word : "Master."

SECOND SIGHT

You scholars that with bended head
Your cold oblivious journey tread,
And teach our senses to be dumb,
Behold ! the time shall surely come
When dusty books will make us laugh
That used to split the world in half ;
When fingers of another dawn,
Piercing at last the palace thorn,
The monstrous mechanism melt ;
Then eyes that doubted what they felt
Out of their weary sleep shall wake
And such delight in looking take,
And in such strong reflection stay,
That to the darkly blinded day
The splendour of the night is lent
And earth reveals her firmament.

Sylvia Eckersley

RUSSET-COATED CAPTAIN

(1939—1945).

When Stroods lay yet to clover,
and new-strawed ricks breathed sweet,
the Hampshiremen went ploughing
to plant their winter wheat.
—But gentlemen had blundered :
were like to blunder more ;
we rose and donned, we rustics,
the russet wear of war.

Oh ! some I fought beside of
knew not for what they fought ;
some few had donned the colour
since others said they ought.
Some drank, and cared for nothing
more than the pay they drew ;
but I knew what I fought for,
and I loved what I knew.

Where Afric sands, or heat-racked
Italian landscapes reeled,
I saw always the acres
of one lone English field ;
furrows by frost enfolded,
and, dearer from that dearth,
the bare hedgerows ennobling
that naked Hampshire earth.

And by that winter fallow
like some ranked legion lay
the nameless men who made it :
the hinds in hodden grey.
I wore that coat of russet
because, where all these stood,
no foe's come since the Norman :
. . . . . nor meant these that they should.

When ploughs plied on unchallenged,
the russet coat would chafe.
It seemed for one more lifetime
that English field was safe.
I to that earth returning,
and ghosts of bygone men :
a russet-coated captain
came, silent, home again.

H. E. Brading.

MICHAEL AND St. GEORGE—I.

Isabel Wyatt

THE story of St. George is a little Apocalypse, in which the great stages of human evolution are imaged forth in pictures—not in mighty cosmic pictures, as in St. John's Apocalypse, but in pictures of a human life and martyrdom.

The Roman Empire in the fourth century knew two Georges of Cappadocia. Of one, the contemporary historian Marcellinus gives the following biography: Born in a fuller's mill at Epiphania in Cilicia, he amassed wealth as a war profiteer, selling bacon to the Roman troops at Constantinople; his frauds discovered, he fled to Cappadocia, found Arianism and scholarship fashionable in court circles, embraced the one and acquired the other, and in the year 356 became Bishop of Alexandria. There, five years later, his ferocious persecution of both heathen and Athanasian, and his iniquitous monopolies (even of funerals), goaded his Christian subjects to imprison him, and his non-Christian to storm the prison, tear his body piecemeal and cast it into the sea.

This is the dark double whom each precipitation in intellectual thinking has confused with the true St. George. Especially in the iconoclastic climate of the Reformation did this substitution flourish, to be lustily repudiated by Raleigh in his *History of the World* ("While leaving every man to his own belief as to whether St. George slew a dragon, we may rather make the story allegorical, figuring the victory of Christ, than accept of George the Arian"); and by Heylyn in his *Historie of St. George*, written "to clear this historie from all further questions of those hereticks and atheists who deprave it by mingling with it the life of an Arian bishop of that name." And at the end of the eighteenth century, when the loss of the last relics of the ancient spiritual wisdom leaves western humanity empty for the inrush of the next century's materialism, Gibbon so virulently revives the denigration in his *Decline and Fall* that it over-rides Ruskin's refutation in *Fors Clavigera* and reverberates on right into our own times.

For between these two figures there is in fact a certain connection, upon which the spirits of opposition are able to seize to the confusion of men's minds. In George the Arian's unbridled and merciless pursuit of egoistic interests there run riot those still unredeemed soul-forces which George the Martyr strives to bring under the harmonious sway of Christ. The one George is the shadow of the other's light.

The other George (already canonised almost half a century before George the Arian's death) was a tribune in the imperial army. Fourth and fifth century Coptic texts in the Bodleian and Vatican

libraries give him the following background: He was born in the year 270 at Militene, the Cappadocian city of which his father, Anastatius (a Christian), was governor, his grandfather, John (also a Christian) being governor of the whole province. In the female line he was descended from those Christian "saints that dwelt at Lydda" referred to in the *Acts of the Apostles* (chapter IX, verses 32-35), his mother, Kira Theognosta, being the daughter of Dionysius, military count of Lydda, and of the same stock as Joseph of neighbouring Arimathea.

On her husband's death, Kira Theognosta returned to her native Lydda with her ten-year-old son George and his two younger sisters, Kasea and Matthrona. Thus already in childhood his placing in outer life foreshadows his later initiation—like his pre-Christian prototypes as dragon-slayer, Horus and Siegfried, he is the Son of the Widow. Already also in his sisters' names—for Kasea, the Coptic form of Catherine, means "pure;" and Matthrona we meet again in St. Marthon who subdued the Provençal dragon by holding up a cross—we see revealed those forces to which St. George's are related.

George received his military training under the Emperor Diocletian, serving under him in the Egyptian campaign of 295, and under Galerius in the Persian War which followed. In both campaigns his comrade-in-arms was Constantine, whom Diocletian had taken into the army as hostage when in 292 he had raised the youth's father, Constantius Chlorus, together with Galerius, to the rank of Caesar (subordinate emperor). There is a tradition that at the close of the Persian War George was sent by Diocletian to Caerleon-on-Usk, at that time the headquarters of the Second Roman Legion; that while in Britain he visited the mother of his comrade, the Empress Helena, at York; and that as a result of this meeting she was converted to Christianity.

During the first fourteen years of Diocletian's reign (284-298), the Christian Church had flourished unmolested; but in 298, incited by Galerius, Diocletian issued the decree, that all soldiers must take part in the non-Christian sacrificial rites, which was to bring about St. George's martyrdom; and in 303, still under the influence of Galerius, he ordered the destruction of all Christian churches and professing Christians throughout the Empire. In the Eastern Church nearly forty thousand Christians were slain in this sudden purge; in the West, over ten thousand in Caerleon-on-Usk alone.

Abba Theodotus, fifth century Bishop of Ancyra, records the horrified reaction: "The hearts of many melted because of the great evil which had risen up against the Churches, and no man dared to say, 'I am a Christian,' because of his fear of the great number of the instruments of torture; and there was great sorrow and lamentation in all the ends of the world." This was the background against which George Tarbinus (George the Tribune) came to Nicomedia, the capital of the Eastern Empire, and before Galerius and the

sixty-nine judges who sat with him in the judgment hall of the great Roman basilica there, boldly proclaimed : "I am a Christian !"

With modern brain-bound thinking we shall never decipher the spiritual realities behind St. George's tortures—hung on the wooden horse, beaten with leather whips, nailed into iron boots, cast into boiling pitch, crushed under marble pillars, broken on a wheel of knives, brayed in a bronze bull. Already by the eighth century understanding of these things was so far dimmed that the Venerable Bede recorded : "Although St. George truly finished his martyrdom by decapitation, the gests of his passion are numbered among the apochryphal writings". But the incident of Athanasius the Magician can perhaps point the way to a penetration of these strong, mysterious symbols by a more living comprehension.

When Galerius (called Dacianus in the early texts, because he was a Dacian) has tried without avail to make the young tribune sacrifice to the gods of the Roman Pantheon, he demands of Athanasius that he shall "put an end to the magic of this Christian." Athanasius "took a cup, and washed his face in it, and invoked the names of demons over it, and gave it to the saint to drink ; and when he had drunk, no evil happened to him at all. Then he took another cup, and mixed poisons in it, and invoked mightier names of devils over it, and gave the saint the cup to drink ; and when he had drunk, no evil happened to him. Then cried Athanasius : 'O St. George, thou hast the cross of Jesus Christ the Son of God. Give me the seal of Christ !' And St. George smote the earth, and water came forth, and he baptised him."

As a magician, Athanasius had trained if unhallowed occult faculties, and so was able even before St. George's martyrdom was consummated to perceive the Cross of Christ within his aura. St. George's cross—a red cross on a white ground—is connected with the deepest mysteries of Christianity ; in many mediaeval paintings of the Resurrection it appears on the banner borne by the Risen Christ. That this connection was in the consciousness of the Early Christians when they recognised this cross as belonging to St. George, and that the profoundest significance was attached to it, is indicated in the titles bestowed on him by the Ancient Greek Church—George the Trophy Bearer (*Tropoephorus*), George the Glorious Standard Bearer, George the Victorious Commander.

Among the Knights Templar the secret of this cross was handed down in the following picture : When Adam was driven forth from Paradise, he brought away with him a cutting from the Tree of Life and planted it on Earth. Three shoots came forth, growing together into one runk, and from this was later taken the wood of the cross on which Christ was crucified. In its transplanting from Paradise

THE VIRGIN AND CHILD
WITH SS. GEORGE AND ANTHONY ABBOT
by PISANELLO (c. 1395-1455)
Reproduced by courtesy of the Trustees, The National Gallery, London

to Earth, the wood had become dead; but when Christ united Himself with it in the cross, the threefold shoot once more grew quick with the flowers of the Tree of Life.

In the threefold shoot we can see indicated the three sheaths which enfold man's immortal kernel—the physical body; the web of life-forces which permeates it (called by Rudolf Steiner the etheric body); and the body of sensation (which he calls the astral body). With the Fall these had lost their former paradisal perfection; but at the Mystery of Golgotha Christ united with them a new principle—the Christ-Principle of the spiritual Ego—which now works upon them from within, gradually transmuting them into their paradisal counter parts—astral into Spirit-Self, etheric into Life-Spirit, physical into Spirit-Man—until in the far future humanity shall achieve its full seven-membered self.

The early fourth century *Martyrdom of St. George*, which proclaims itself as written by Pasikrates, George's faithful servant and an eye-witness of his martyrdom, unfolds within the realm of this supersensible picture in a most wonderful way. After the first day of St. George's torture, Christ comes to him in the night, comforting him and saying: "Be strong and of good cheer, beloved George. Thou shalt die three times, and I will raise thee up again; but after the fourth time I Myself will come upon a cloud and will take thee away to the place of safekeeping which I have prepared for thy holy dwelling. Be strong and fear not, for I am with thee."

After St. George's first death upon the wheel of knives, his bones are thrown into a deep pit outside the city; and "that night there came a great earthquake, and mountains split asunder suddenly; and Michael blew with his trumpet, and behold, the Lord came upon His chariot of the Cherubim, and stood on the edge of the pit. And He said to the archangel Michael: 'Go down into the pit and gather together the bones of My son George.' And Michael went down into the pit and put together the holy body of St. George, and the Lord took hold of his hand, saying: 'O George My beloved, behold, the hand which formed Adam the first man is about to create thee anew.' And the Lord breathed upon his face, and filled him again with life; and He embraced him, and went up to heaven again with His holy angels."

The resurrected George was killed a second time by being sawn in two; his body was melted in a cauldron of pitch, and the cauldron and its contents were buried deep in the earth. And a second time Christ came and raised him from the dead. A third time George was killed, with iron pots filled with fire, and his body cast away on a high mountain for the birds to devour. And a third time Christ came and raised him from the dead. Then came the day of George's final death. "And the Lord said to the blessed George: 'Blessed art thou this day, O George My beloved, for I have made ready for thee seven crowns of glory in the hands of My Father, and He will place them upon thy head this day. Blessed art thou, O my beloved

George, for I have prepared for thee a royal crown set with gold and pearls, and I will put it upon thy head with My own hands this day.' . . And the soldiers took off his holy head, and there came forth from it blood and milk. And the Lord caused Michael to receive the blood and milk in his garment of light ; and the Lord received his soul into His own hands, and wrapped it in the purple of the aether, and ascended into the heights with it. And He put upon it a garment of light and an excellent diadem of gold set with precious stones, and there were seven crowns upon the diadem, wreathed with the flowers of the Tree of Life."

St. George suffers martyrdom in the Graeco-Latin epoch, the fourth of the seven epochs of the Post-Atlantean Age, the epoch in which Christ unites Himself with the dead wood of man's cross. So, reckoning from that time, there are three "deaths and resurrections" of epochs before the fourth and final "death" which marks the end of the present sevenfold Earth-Age. "But after the fourth time I Myself will come upon a cloud and take thee away to the place of safekeeping" ; for at the end of the Earth-Age Christ will bear man into spiritual realms, there to await the next great stage of his and Earth's evolution. George himself would appear to have had initiate vision of that tremendous future happening, for he speaks to Dacianus of the time "when my Lord God cometh to change the heavens and the earth."

Christ's words to George, "Behold, the hand which formed Adam the first man is about to create thee anew," become transparent for that new creation which accompanies the redemption of each sinning sheath into its sinless counterpart. At the end of the threefold transformation, the guilt of the red blood has been cleansed into the guiltlessness of milk, and that most precious stone, the pearl, has been born out of earthly suffering to adorn the heavenly crown. Upon the excellent diadem are the seven crowns of man's seven perfected principles ; and they are wreathed with the flowers of the Tree of Life, quickened by union with Christ into a new blossoming.

In the Retable of St. George, a large fifteenth-century altar-piece from Valencia in the Victoria and Albert Museum, St. George is shown again and again with his halo entwined with living leaves ; and in the scene in which he is being knighted by the Virgin and armed by angels, a little tree grows up between his feet and he wears a badge of a seven-petalled flower above his heart. In this resurrection of the Tree of Life from the dead wood of his cross we can perhaps glimpse the meaning of that title given him by the Ancient Greek Church—George the Ever-green Green One.

Atlantean deluge, Lemuria's volcanic close, all the great external cataclysms of by-gone epochs are experienced in miniature re-capitulation within the human soul on its path of purification. So, in one aspect of this passion of St. George—dismissed, with the

gradual fading of clairvoyant comprehension, as wildly apochryphal—we can perhaps see imaged forth in a kind of occult script those microcosmic Trials by Fire and Air and Water through which the striving soul achieves, in advance of the main body of mankind, ever higher stages in the long unfolding of mankind's evolution.

For Pasikrates makes it clear that although his master rides ahead, bearing the glorious banner, the red-cross road of redemption is ultimately the road of every soul. There are "seventy godless governors, from all the provinces in the world," gathered to sign St. George's death warrant ; and he causes the legs of their seventy thrones to "bud and put forth roots and blossom, so that those which were of fruit-bearing trees put forth fruit, and those which were not put forth leaves only." He warns Dacianus that all the demons inhabiting his seventy gods must go down to destruction. Seventy is the number of the nations, the number of all mankind. It points to something universal working through the impulse of St. George ; it is like a premonition of that brotherhood which, together with the cleansed astrality, belongs to the age of Spirit-Self. So Christ promises St. George : "I will make all the nations of the earth come to thy shrine and bring thee gifts."

In this transmutation of the threefold lower human nature, it is upon the astral shoot that the Christ-penetrated Ego can first most completely work. For the seer, cleanness of soul is imaged forth as beauty of body, so that there is a significance in the frequency of reference to St. George's beauty in Pasikrates and the Early Eastern Fathers. Even before he enters on his passion, Dacianus, beginning with soft persuasion, exclaims : "Behold now, it is apparent from thy handsome form that thou art a nobleman and a great man. Know now that I love the beauty of thy face." And accounts of tortures which tore the saint limb from limb or ground him to summer dust are followed by the comment : "Now he was very handsome in appearance." So with each torture, with each death and resurrection, his beauty increases, till he "filled his prison with light and with exceeding precious incense, and was like one who had risen up from a royal feast." Pisanello's picture in the National Gallery depicts him with such bright and special beauty that one feels the painter has here envisaged him at just this stage of achievement of transmutation of earthly astrality into heavenly Spirit-Self.

This stage is as clearly indicated in Pasikrates' account of St. George's dealings with the impoverished widow Schollastike, who, when Dacianus sent the saint to her, "saw that his face was bright and shining like that of an angel of God." He restores to life her dead ox ; heals her little son, who is blind, deaf, dumb and lame ; leans his back against the pillar of her house, causing it to take root, put forth leaves, and shoot into a towering fig-tree ; and when she has no food to stay his hunger, Michael blesses her poverty with a table filled with heavenly bread. It is clear that here we have to do with an initiation. The fig-tree was the Jewish tree of initiation—

it was under this tree that Christ saw the initiate Nathaniel; in the healing of the son of the widow—as also in Elias' raising of the son of the widow and in Christ's raising of that other son of a widow, the youth of Nain—the overshadowing of the Spirit-Self shone through; in the eating of the angelic bread (in Hebrew *manna*), Spirit-Self (in Sanskrit *manas*) is indicated yet again.

The widow's Coptic name, Schollastike, means both "rest" and "learning". So we can see this Manas-initiation in a twofold aspect. For Spirit-Self brings on the one hand that rest which is a stilling of the storms of the soul, and on the other warms again into living wisdom of the heart that knowledge which has died within the head. When Pasikrates describes Schollastike as "a poor widow woman whose like for poverty there was not in the whole world," it is like a characterisation of our own times, stripped of all the riches of the ancient wisdom and reduced to the intellect's penury; so that today Schollastike's miracles wait to be wrought anew by the forces of St. George working now in our own thinking, in preparation for the Manas-epoch following our own.

Significantly, when St. George informs Dacianus that he will parley with these gods he will not worship, it is Schollastike's healed small son whom he sends into the temple to summon the demon inhabiting the image of Apollo, whom his accusation, "Thou wast cast forth from heaven on account of thy pride," shows to be Lucifer, and whom he sends down into the abyss, "there to give speech to all the souls thou hast destroyed." Apollo had been the Greeks' vision of that celestial being who had given himself to be a vehicle for the pre-earthly deeds of Christ; with his lyre he had worked, from the astral element of the air, the Christ-miracle of harmonising man's disordered astral forces in Atlantean times. Now that Christ Himself had come to Earth, man's memory of that earlier deed and of the angel-being through whose instrumentality it had been wrought had fallen into decadence and so become a prey to Lucifer, who lives in the disorder he brings about in man's astrality. So in this exorcising of Apollo's demon we are shown another aspect of St. George's astral cleansing.

Since Christ's coming to Earth, the forces of Lucifer work in taking man too much out of himself, in tearing him out of his earthly moorings and giving him premature pinions. It is in direct opposition to this Luciferic impulse that St. George refuses to take part in "frenzied sacrificing to idols"—a refusal bound up with the whole reversal of direction of Christian from pre-Christian approach to the Divine. For in pre-Christian times it was common, particularly where the Dionysian principle prevailed, to meet one's god in ecstasy, in a going out from one's bodily nature such as is figured in the Bacchanalian frenzy. But the Christian way is to take Christ into oneself ("Christ *in me*"), that there He may unite with one's own cross. So, in the Early Churches, Paul forbids, as things belonging to a dispensation now outworn, prophesyings and speaking with tongues

and the sibylline utterances imaged in woman's uncovered hair. So also George's exhortation to his pagan judges, "Cease your frenzy, O governors!", belongs to that whole ordering and harmonising of the astral body towards which his forces work.

After St. George's beheading, those three among his servants who had refused to forsake him, Pasikrates, Lukios and Kirennios, "joined the head of the saint to his body, and it united with it as if it had never been severed." They took the holy body by ship to Joppa, where Leontius, a kinsman of St. George's, furnished horses to bear it the twelve miles to Lydda. Here Andrew, the brother of St. George's mother, buried it and over the tomb built a martyrium, which became famous as a place of pilgrimage, and where many miracles were wrought.

Abba Theodosius, fifth century Bishop of Jerusalem, relates that, still urged on by Galerius, Diocletian was preparing to embark for Palestine to destroy this shrine, when "behold, the holy archangel Michael and St. George came down from heaven, and over-turned under him the throne on which he sat, saying, 'Now thy dominion is passed away and is given to Constantine, who is more excellent than thou a thousand times.'"

Certainly Diocletian's abrupt abdication followed by only two years St. George's beheading in 303 (at the age of thirty-three, the age of Jesus of Nazareth at the Crucifixion, and the period taken by any impulse to come to maturity), and was itself followed a year later by the death of Constantius Chlorus and the succession of his son Constantine as Emperor of the West. Constantine's first imperial act before leaving York for Rome was to grant toleration to all British Christians. When he saw the vision of a cross and heard Christ's voice bidding him, "In this sign conquer," which led to his victory over Maxentius in 312, he must have interpreted the cross especially as St. George's symbol—that is, as the harmoniser and cleanser of disordered astrality—for in the following year he not only issued the Edict of Milan, granting toleration to all Christian sects throughout the Empire, but he also abolished the gladiatorial games and punishment by crucifixion. These had been expressions of Rome's attempt to escape from her native Ahrimanic coldness and rigidity through a calling in of Lucifer in a continual stirring up of emotion; Constantine sought in this sphere also to apply George's admonition, "Cease your frenzy," and to turn for Ahriman's healing not to Lucifer but to Christ.

The martyrdom of his comrade would appear to have worked on strongly in Constantine, and to have stirred in him an impulse to insert the forces of the red cross into Roman civilisation quite exoterically; for when, in the following year again, he summoned bishops and clergy from every part of the Empire to the Council of Arles, to settle various dissensions, chief among them being how

the *Lapsi* (those more timorous Christians who during the Diocletian persecution had sacrificed to idols) should be dealt with, against this background of those who had fallen away he set the figure of his martyred friend as a shining example of those who had stood firm, proposing his official adoption by the Christian Church as Champion of Christendom. Accordingly it was at this Council (at which Eborius of York, Restitus of London and Adelphius of Caerleon-on-Usk were the British signatories) that, only eleven years after his martyrdom, George the Tribune was canonised.

Constantine followed the canonisation by building a series of twenty-one churches in St. George's honour, beginning with one over the tomb at Lydda (later to be destroyed by the Persians and rebuilt by Justinian), and culminating in the magnificent church, in his new, first purely Christian city of Constantinople, which Justinian was to rebuild as San Sophia. Eusebius of Caesarea, Constantine's contemporary biographer, records that on the portico of his palace he erected an encaustic painting of himself trampling the dragon underfoot "by virtue of that salutary trophy, the cross, placed above his head," and to the plain gold collar which was the Empire's reward for valour he added a golden cross and image of St. George. It is perhaps significant that it was thirty-three years after St. George's martyrdom that, on the eve of his own death, Constantine himself received Christian baptism.

So George the Tribune becomes the Champion of Christendom. But as the Roman Empire crumbles and other impulses begin to appear, that championing of Christianity against heathendom with which his very martyrdom is bound up takes a new, decisive turn. It emerges in sharp clarity as a championing of the Cross against the Crescent.

From the eighth century to the thirteenth, George fights in Spain against the Moors. From the eleventh to the thirteenth, he fights in Palestine against the Saracens. In the thirteenth and fourteenth, he fights in Russia against the Mongol-Tartar hordes. In each case he defends the realm of Christ against the invasion of Mahomet. He fights in the service of Michael and the new Sun-Age, in whose climate Christ's union with man's cross can transubstantiate that cross, against Gabriel moon-forces persisting after their due time and therefore hindering that transubstantiation.

Gabriel was chosen by Mahomet as the great protecting archangel of Islamism ; it was messages received from Gabriel by Mahomet in his cave on Mount Hira which were later incorporated into the Koran. In Mahomet's uncompromising monotheism ("There is no God but Allah, and Mahomet is His prophet"), Gabriel carries over into the Christian era the pre-Christian Jehovah impulse. Under the Old Covenant, (that of Jehovah, the moon-reflection of Christ the Sun-Spirit), this concentration on the One had been right and proper ;

to the New (when Christ the Sun-Spirit unites Himself with the destiny of the Earth, making her the seed of a new sun) belongs awareness of that Trinity into whose likeness man has now again to shape his fallen threefold nature. This is delicately indicated in the ancient Coptic text, where, at the consummation of St. George's martyrdom, Christ carried his soul to heaven "and gave it as a gift to His Good Father and the Holy Spirit."

Man's evolution up to the coming of Christ to Earth had proceeded under the over-arching sign of Gabriel, of the moon-forces which work in earthly generation, in race, heredity, family, blood-relationship. But Christ's coming plants in man the seed of a new sun-relationship between souls not tied by blood who have found each other in freedom—that brotherhood which will come to full fruition when mankind achieves Spirit-Self. And this relationship develops under the over-arching sign of Michael. But Old Covenant did not give place overnight to New with the coming of Christ ; there was a kind of cosmic time-lag during which the new impulses gathered strength, until in 1879 Gabriel finally yielded place to Michael in this larger evolutionary rhythm. And as Mahomet worked to prolong the overpast rule of Gabriel, so George worked to ensure and implement the dawning rule of Michael. It is not without significance that Galerius addresses George as "thou first among the Galileans" ; that the widow Schollastike, seeing his face shining like the sun, says in her heart, "The God of the Galileans has come into my house" ; or that the Eastern Church gives him the title, "George, the Mighty Man of the Galileans of Militene." For amongst the Jews the Galileans were the stream already freest from the blood-bond ; the very name, Galilean, means "mongrel" or mixed breed".

The moon works in a twofold way : in its rhythm work the life-giving forces of birth ; but out of its dead, burned-out substance work forces which dry up and mummify. So, at a time when Europe is still barbarian but charged with young life-forces, we find Islam producing a precocious civilisation in which living experience has already died into abstract knowledge. Already in the sixth century, with the birth of Mahomet and with the translation of Aristotle into Arabic, a strongly materialistic impulse entered the stream of evolution, to receive a new impetus in the eighth century when, in the East, Haroun-el-Raschid spread this brilliant head-culture from his court at Baghdad, and, in the West, the Moors conquered Spain and over-ran Southern and Central France, carrying into the heart of Western Europe the culture of the ancients worked over by the desiccative Moslem intellect.

The Retable of St. George, painted to commemorate the battle of 1237 in which St. George fought against the Moors, includes this battle-scene, with the red crosses aglow on the saint's pennon and surtout

and horse's trappings as he bends above the dark, crowned face of the unhorsed Moorish king, while a scorpion and a turtle are depicted on two of the Moorish shields. Such crests are like an archetypal gesture; for it was in fact the scorpion's sting and the turtle-shell of the closed skull shutting out the heavenly wisdom that the Moors introduced into Europe from Islamic Spain.

So Aragon and Portugal took St. George for patron saint, and their legends look with faith and hope towards a time when red cross shall triumph over scorpion and turtle; for they tell how, after long years of desperate fighting, St. George captured the Moorish king and himself reigned in his stead. So, like Pasikrates' story of Scholl-astike, and like the English Mumming Plays in which St. George kills a Turkish knight and brings him to life again, these Spanish legends point to the resurrection of living imaginative thinking from the dead realm of the intellect through the forces of St. George.

But it is not only the moon-forces working in the intellect and in the blood-bond that St. George strives to redeem, but also all that is untamed or uncontrolled in the astral nature—passion, egoism, the ravening of instinctual forces, tempest without or within. In the light of this, many puzzling fragments of St. George lore become plain—why houseleek, which is said to ward off lightning from the roof on which it grows, is called St. George's Beard; why St. George's Camisia (shirt), treasured at Rome, is held to be a talisman against storms at sea; why St. George is invoked in mediaeval charms against nightmare; why in Russia the wolf, compassionately seen as it can become through the forces of St. George, is called St. George's dog; why madmen were taken for healing to the shrine at Lydda; why St. George is the saint specially befriending those in distress of mind; why his name was used in the exorcism of devils.

It becomes plain, also, why King Arthur placed St. George upon his banner, and made him patron and protector of the Table Round. For Arthur and his knights had the task of civilizing Europe at a time of powerful astrality; and their knightly "adventures" express, in the imagery of conflicts with giants and monsters, their efforts to subdue this astrality both in their own souls and in the world about them. For they strove to fit themselves for their task of bringing order and harmony into the outer savageries of the times by a refining and cleansing of their own astral natures. The *Oathes of the Knights of the Table Round*, preserved in the British Museum (Harleian Collection), make it clear that the outer adventures corresponded to steps on an inner, esoteric path of purification—a path which we can glimpse even in the exoteric list of knightly virtues given in the sixteenth century by Malory: "noble actes, feates of armes, of chivalrye, prowesse, hardynesse, humanitye, curtosye, and very gentylnesse."

This obligation of striving to transform the lower nature was inherited, in a form here more inward, there more outward, by all later Orders of Chivalry. St. George, under Michael, was the spiritual

being leading all true knights along this way of purification. Therefore in England the accolade was given "in the names of God, St. Michael and St. George," and in mediaeval France with the words: "*Je te fais chevalier au nom de Dieu at de Monseigneur St. Georges.*" The life of the true knight followed the way of the red cross.

In the Crusades—the Wars of the Red Cross—St. George again confronts Mahomet. William of Malmesbury relates that at the siege of Antioch. (June, 1098), as the Crusaders were falling back before the Saracens, "St. George appeared, in bright armour and on a white steed, hurling darts at the enemy," so that the tide of battle turned. In the following year, at the taking of Jerusalem, "St. George was again seen of many, waving his sword aloft on the Mount of Olives, and riding before them into the Holy City." At the siege of Acre (July, 1191), the Crusaders were led for the first time by a banner bearing the red cross on a white ground. This was by order of Richard Coeur-de-Lion, who, calling his own knights about him, vowed to re-found King Arthur's Table Round, making them Companions, if their assault succeeded. And they bound "thonges of blew leather about their legges, by means of which, being minded of their future glory, they might be stirred up to behave themselves bravely and valiantly." As they advanced towards the scaling-ladders, the battle-cry Coeur-de-Lion had given them—"Upon them, St. George!"—swelled and kindled into an awed fervour as they saw above them on the walls of Acre the radiant figure of the saint, a red cross on the white surtout over his shining armour. Acre was taken, and, says the chronicler, an injunction was issued to the English-Norman troops: "Item, that all souldiers entering into battaille shall have for their common cry, *Upon them, St. George* !, whereby the souldier is much comforted and the enemie dismaied."

As a thank-offering for the victory, Coeur-de-Lion rebuilt Justinian's church over St. George's tomb at Lydda, which the Saracens had destroyed. Built of polished yellow rock from quarries on the road to Jerusalem, it was kept in repair down to the time of Edward IV with oaks from England's royal forests; and as late as 1879 ruins of sturdy Byzantine zigzag work and slender, soaring Pointed Gothic still guarded the tomb side by side.

In the Crusades, as in the Moorish conquest of Spain, a scorpion poison had been spread among the Christians. From one aspect, the very form taken by the Crusades was shaped by an Arabian type of thinking. For they were directed out of too material a search for Christ, too material a conception of the meaning of the cross. They sought in the physical, the geographical, what was to be found only in the spiritual, the moral. It was as if the Crusaders denied St. George in one sphere even while they followed him in another. So, when the Renaissance came, those new life-forces which should have been there to nourish it were lacking. Instead, it drew on the

residual life-forces of antiquity till these were exhausted, shot up like a fountain from too shallow a spring, then sank away, bequeathing only a trickle of living water to lands increasingly laid waste by desert-dwelling scorpion and reptilian, shell-backed turtle.

From the Crusades onwards the story of St. George shows him growing into his present spiritual leadership of England, and at the same time beginning to lay the groundwork of his future spiritual leadership of Russia.

The second part of this article will appear in next year's "Golden Blade."

"GOING THROUGH THE MILL"

Maurice Wood

A century ago, when it was taken for granted that a business would be handed down from one generation to another, a father would put his son "through the mill" to prepare him for his responsibilities. This meant that the youth would start at the bottom of the concern and work his way through every process of the mill or factory alongside the other workers. To-day the expression "going through the mill" has a certain disciplinary and even punitive meaning.

My own apprenticeship was served in the building trade, and although I have changed my vocation more than once since then, I have always been grateful for the things I learnt whilst cutting the rough Yorkshire sandstone and listening to the rough Yorkshire philosophy of the old stonemasons with whom I worked.

Between the years 1914 and 1919 I was situated in a part of the world where, although we did not suffer actual hunger, there was sufficient belt-tightening to drive our thoughts to food and how it was to be secured in the future for a wife and young family. With this in mind, my first concern on getting back to England was to acquire a little farm, and although of course food production did not start immediately, I shall never forget the satisfaction it gave me to go into the barn and just look at the store of potatoes and sacks of wheat that I had been able to buy from a neighbouring farmer.

And yet in the dark, quiet evenings of that first winter, in spite of a good supper and warm fire, there was always the bogey on my shoulder; dark, cold, fear that things were not going to turn out as planned. It was not the work that frightened me, nor was it the hardships and known risks of farming. It was a feeling of pending disaster. My original idea had been to keep poultry, rear them on natural lines and feed them and ourselves entirely from our own land. It seemed so simple and so safe then, and now it was proving unpractical and uneconomical. If I was going in for farming at all, I must adopt modern methods and ideas—incubators, intensive or semi-intensive laying houses, and buy cheap imported grain for feeding. Fortunately, not being chemistry-minded, I did not think of using chemical fertilisers, but I soon found myself gradually being drawn into a man-made system, based on the laws of finance rather than on the laws of nature.

The further I went along these lines, the worse the difficulties into which I got. All the time the price of eggs and poultry was falling, and British agriculture was being abandoned and ignored by the government and the workers alike. To add to this, the poultry were not doing well. The rate of mortality among the chickens was

alarmingly high, and then, as though to make quite sure that I should understand, fate struck me down with an illness which sent me to bed for several weeks.

On recovery, it became clear that I was now physically unable to carry on the farm as previously, and, for this and other reasons, a rearrangement of my work, and indeed of my whole outlook on life, became necessary.

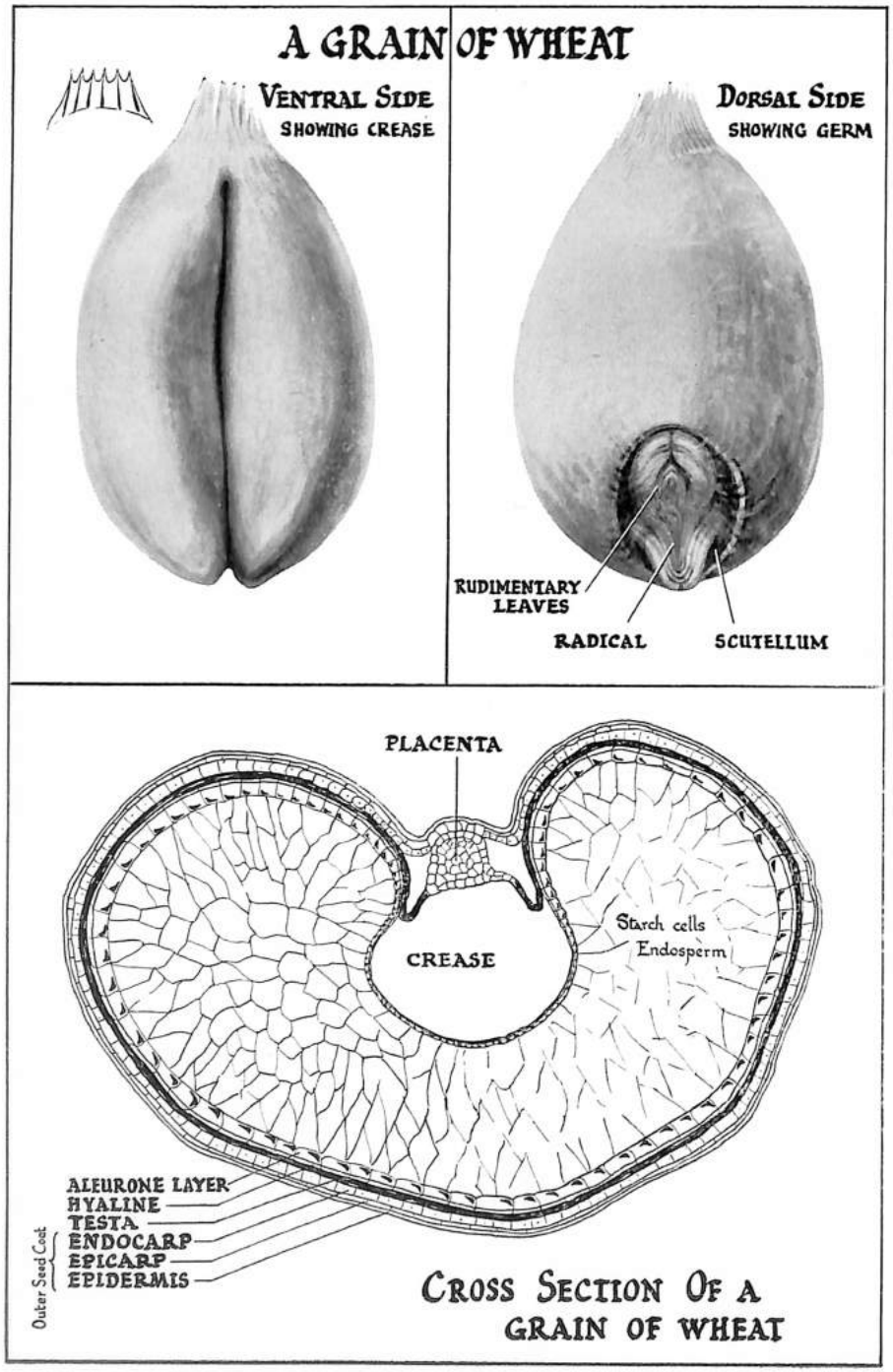
It was then that I first came across the teachings of Rudolf Steiner. In the Agriculture Course of lectures, the key was put into my hands for the solution of my farm problems. The picture that Dr. Steiner there gives of the earth as an organism—not an isolated, closed organism, but supported and nourished by forces coming from the whole surrounding universe—gave me the guiding line I had been wanting.

From now onwards my aim was to convert my poultry farm, so far as my resources would allow, into a balanced organism. It was at the end of the year 1928 that I first started making compost and the bio-dynamic preparations and sprays. In a few years' time I was growing small crops of wheat and getting it milled for bread-meal for ourselves and a few friends.

The reaction of the friends was very encouraging, and I was soon supplying the friends of friends in an ever-widening circle. And then the country mill, where I was sending the grain to be ground, went out of business. By this time there did not seem to be a suitable miller left to whom I could entrust my wheat, so out of sheer necessity I was driven to making a mill of my own. This proved no easy task, and as it had to be done in time spared from the work of the farm, it took several years to complete.

It was in 1940 that the new mill was actually licensed and ready for working, and in 1941 came the "Home Grown Wheat (Control) Order," by which a grower was required to sell the whole of his threshed wheat to an approved buyer. I was informed by the Ministry that, although I was an approved buyer, I should not be allowed to use my own wheat for milling. Eventually, however, after a good deal of correspondence, which led to a question in Parliament, I was granted a special licence to produce wholemeal flour from my own wheat.

No sooner were these milling troubles settled, than I not only received an order from the War Agricultural Executive Committee to plough another field (to this, naturally, I had no objection), but attached to the order were instructions to apply lime and certain chemical fertilisers. I explained to the Committee that for the past twelve years I had been applying the bio-dynamic methods, and that therefore no chemical fertilisers were necessary. After the W.A.E.C. representative had inspected the farm, the order in respect of the



"artificials" was withdrawn. The resulting crop proved highly satisfactory, and when the local committee came to look at it, one of them remarked, "Whatever it's had, it seems to have suited it."

Although the farm was producing only a comparatively small quantity of wheat (ten tons in the highest year), I was able to draw some conclusions as to the results of the application of Rudolf Steiner's indications, both in the growing of the wheat and in the milling of it for bread-meal. Having direct contact with each consumer, I I was able personally to learn from, and deal with, any complaints and criticisms.

The complaints of course came, as I still had much to learn, but as time went on the criticisms became more and more favourable. There seemed to be some special quality about the bread, discernible in the good flavour, which reminded my customers of the home-made bread of fifty years ago. Some said it was so satisfying that they felt they could make a complete meal from it.

Questions constantly in my mind now were :—"How can this good food be made available to everyone? How can the system be extended? What are the important points to be observed in order to retain the essential nature of the product?"

For one thing, in order to ensure delivery from stack to table in a perfectly clean and fresh condition, the system should be developed on a regional basis. There should be thousands of these stone-mills situated on farms, or working in close connection with farms, each mill serving the district around it, and the miller in direct contact with producer and consumer.

But to begin at the beginning—that is, with the wheat itself. The first indication of a line to take came to me from our Agriculture Course. Throughout these lectures, and indeed in many other lectures, Rudolf Steiner emphasises the importance to plant, animal and man of the element silicon ; or, as it is more commonly known, when combined with oxygen, silica. Silica is everywhere, not only in the solid rocks and sand, but also very finely distributed throughout the atmosphere and the crust of the earth.

The nature of silica is to work in the periphery of organisms—in the skin or outer sheath, and in the sense-organs, which are also a skin formation. We find it in the bran of the wheat berry. The greater part of the mineral salts contained in wheat are in the bran. Jago, in *The Technology of Breadmaking*, gives the following as a mineral percentage content of ash of bran ;—Silica 0.97 ; Potash 28.19 ; Lime 2.50 ; Magnesia 14.76 ; Phosphoric Acid 52.81 ; and smaller amounts of other elements.

Any textbook on flour-milling or agricultural botany will give details of the construction of the wheat grain. It is described as a nut-like fruit, termed by botanists a "caryopsis". It contains a single seed or kernel enclosed within a thin shell—the bran. The

dorsal side of the grain has a smooth and rounded surface, and at its base is the germ, which is, or contains, the dormant young wheat plant. The opposite, or ventral, side has an inward fold or furrow called the "crease". The apex is covered with a number of short stiff hairs, called the "beard" or "brush", and among the hairs the remains of the styles are found.

The germ is embedded in a sheath-like organ called the "scutellum", to which it is attached mid-way between the leaf-and-stem system and the root system of the young plant. The epidermis of the back of the scutellum is called the epithelium ; through its cells the dissolved materials of the endosperm are absorbed by the embryo when germination occurs. The germ and scutellum, though weighing only 3% of the whole grain, contain all the vitamin E and 60% of the vitamin B of the wheat berry. Practically all this is taken out in the first process when making white flour.

There are six layers of bran. The three outermost layers (epidermis, epicarp, and endocarp) form the outer coat of the seed. Next comes the testa—the layer containing the pigment which gives the golden colour to the ripe grain. And then there is the hyaline, (meaning "glass-like") layer. Lastly, in close contact with the endosperm (which forms the main starchy content of the grain), lies the aleurone layer, rich in protein. It was the glass-like—or let us say silica-like—hyaline layer of the bran that especially interested me.

In the bio-dynamic methods we make use of the contracting quality of silica. Spraying vegetables with a biologically-prepared homoeopathic solution of silica gives them an added firmness and crispness, and has been found to delay the bolting of lettuce for from two to three weeks. Silica also plays an important part in some of the herbal preparations with which our compost and manure heaps are treated. Here we make use of silica in its role as a collector of what Dr. Steiner calls the "cosmic chemistry".

When lecturing in London recently, Dr. Pfeiffer, the eminent biologist and farmer, told of wheat on his farm in America which had been grown for twenty years in bio-dynamically treated soils and had never had chemical fertilisers. Samples of the 1948 crop were sent to the Institute of Technology in Chicago. A spectrum analysis was made both for major mineral elements and for "trace" elements. The mineral content came out the second highest of any American wheat, the highest having been grown on virgin soil in Texas. The number of elements found was 21, including all the trace elements usually recognised, and even silver. Average American wheats show only 15 or 16 elements.

This capacity of silica for attracting other elements is known to all soil scientists. In *The Scientific Study of the Soil* (Comber, 1948) we read (p. 132) : "Silicon is an invariable constituent of plants grown in soils, and investigations at Rothamsted and elsewhere show that soluble silicates have an effect in cases of phosphate deficiency.

Either the silicon in some way functions in place of phosphorus, or, what is more probable, the silicate by some obscure means facilitates the uptake of phosphorus compounds."

To return to our examination of the wheat grain. In *Flour Milling Processes* (J. H. Scott, 1951) under the heading "The Behaviour of Moisture in Wheat", the writer says: "It now seems to be definitely established that much of the moisture taken in or given out by the grain is by way of the skin, and it is therefore porous to some extent ..... [The moisture] made its way slowly along the grain towards the beard end. This transference of moisture occurred more rapidly in the region of the bran than it did at the centre of the grain .... Penetration through the bran was apparently slowed down by the hyaline layer outside the aleurone layer. It was concluded that the beard end of the grain always received its moisture through the bran..... No indication of moisture entry through the crease could be detected .... Capillary action was detected on the outside surface of the grain *towards* the crease, but not *away* from it. It would appear from this that the beard must normally pass out excess water."

Reading the accounts of these most interesting scientific investigations, one gets a picture of moisture from within and moisture from without being repelled, or rather propelled, by the silica-like hyaline layer up through the length of the grain, and, in its passage, leaving its burden of minerals in the bran. In the manufacture of white flour the bran is totally discarded.

And this is not yet the whole story. What is this "crease-dirt" that we read about in the textbooks as something that must be eliminated in order to produce pure white flour ? Inside the crease, and running the full length of the grain from the point at which it is attached to the parent plant up to the base of the style, is the "placenta". The placenta is composed of a number of hollow tubes, which are described by Dr. Lionel Picton in his book *Thoughts on Feeding*, (Faber, 1946), in this way : "These tubes continue those which run up in the straw from the soil. They carry many minerals in the sap, which are so conveyed to the grain, and, apparently, those which the grain does not immediately use are dumped—so to speak—just underneath the crease, so that this staff or leash in the grain is exceptionally rich in minerals". The so-called "crease-dirt", like the bran, has no place in white flour.

We can learn a little more about the working of silica from the beard at the extreme end of the grain. Under the microscope, the hairs of the beard look like little hollow glass tubes. Their purpose, as we have already heard, is to pass out excess water, and this seems to come about in the following way : when the water reaches the beard it is suspended between the hairs like little cups, thus exposing the greatest possible surface and hastening evaporation.

So, throughout the wheat plant, we can visualise the activity of silica, surrounding and conveying the mineral-laden moisture,

expelling the water and conserving the minerals. And when the wheat is harvested in the stook and stack, this maturing process is continued under the most favourable conditions of temperature and aeration, each grain protected in its own silica sheath of bran and chaff. It is extremely doubtful whether we can replace these processes of nature with the combine harvester and artificial drying. And there is worse to follow.

Practically all wheat, on entering a modern flour milling concern, is put through a vigorous process of washing and scouring or scrubbing, the aim of which is to remove as much as possible of the outer coat of the bran and the contents of the crease. After this, whatever the method of milling or subsequent treatment, the product can never rightly be called "wholemeal".

In a lecture entitled "The Countenance of the Earth", given at Dornach in July, 1922, Dr. Steiner speaks about a duality in man. It is a battle between the forces of carbon and the forces of silica. If we were dependent entirely upon the carbon, we should be linked up with the earth alone and become entirely materialistic. There is also a reference to this in the Agriculture Course (VIII, 18) : "Indeed, the exaggerated use of potatoes is one of the factors that have made men and animals materialistic, since the introduction of potato-cultivation into Europe. We should eat only just enough potatoes to stimulate our brain and head-nature. The eating of potatoes, above all, should not be overdone." We need the siliceous process to counteract this materialistic thinking. Again, in "Spiritual Science and Medicine" (IX, 126), Dr. Steiner says that "all the substances derived from the ashes of plants are closely related to the siliceous process outside ourselves".

As we have seen, the silica and mineral elements are chiefly in the bran of the wheat, whilst the endosperm, (the largest substantial part of the grain), is composed almost entirely of starch, a hydrocarbon. So, in the cultivation of wheat, we have the possibility of balancing the silica and carbon forces in our food, for wheat is such an amenable plant. But the varieties of wheat most popular today, with both farmers and millers, are those which yield the greatest amount of white flour.

The leaders of ancient Persia, who first taught the cultivation of the soil and the growing of wheat, no doubt knew this connection between man's thinking powers and the consumption of wheaten bread. The Avesta, the Holy Scripture of Iran, given by the prophet Zoroaster, contains directions on agricultural matters, and there wheat is placed above all other cereals as the best food for mankind. It is a significant fact that, throughout history, we repeatedly find a nation living on wheaten bread at the spear-head of civilisation. In this respect one might say that the history of civilisation is the history of bread; for the whiter the flour, the more materialistic became man's thinking and the more mechanical his methods of preparing food.

We will pass on now from the wheat to the mill. In a lecture reported in the Journal of the Royal Society of Arts, (Jan. 1950), Mr. Kent-Jones, of the British Millers' Research Association, has the following to say : "What happens to that important part of the grain, the germ, and particularly to the protective covering of the germ, the scutellum ? The germ itself, containing much fat or oil, tends to flatten when the fractions rich in germ pass between the rollers, and it congregates in certain places in the milling system .... Few people realise that, although as much of the germ as possible is now retained in the flour sack, by no means all the germ finds its way there. Always, even to-day, the bulk of the germ becomes disintegrated and still appears in the offal. It is difficult to see how this can be prevented in modern mills. Even when the extraction is as high as 85%, the more important portion of the grain from a vitamin point of view—the scutellum—tends to congregate in what are called the lower reductions."

Having read that, and realising that the scutellum, although only a mere 1½% by weight of the whole grain, contains no less than 60% of the total vitamin B content, I think we need hardly spend more time on the consideration of the details of the working of modern mills.

The primary aim of flour milling is gradually to reduce grain to a meal sufficiently fine to enable us to make it into bread. The roller mill endeavours to achieve this by means of a number of mills constructed of steel rollers. After each passage between a pair of rollers, the ground material is subjected to one or more separations (scalping, grading, dusting, purifying, flour-dressing), before being passed through other roller mills for further reduction. In a stone-mill, gradual reduction is done in one operation ; and in the making of wholemeal, of course, there are no separations.

But that is not all there is to it. If the finer qualities and virtues of the wheat are to be retained, reduction must be carried out with as little violence as possible. Friction and pressure, and the consequent heating of the flour, must be reduced to a minimum. Strange as it may appear at first sight, there seems to be no better way of achieving this than by grinding with stone, and the best material for the purpose, and the most accessible (to me at any rate), is millstone grit, quarried from the Pennines. The Romans, and probably their prehistoric predecessors, recognised the merits of this material and used it, especially for the bottom stones of their querns.

Derbyshire Greystones, as they are called, (though many are actually quarried in Yorkshire,) are peculiarly well adapted for the manufacture of millstones, because the coarse texture keeps a pair of stones from too intimate contact and permits air to penetrate. The grinding face of the stones is cut with a series of furrows, designed not only to distribute the stock outwards over the whole working surface, but also to cool both the stock and the stones. The more numerous the furrows, the cooler the grinding. The faces of the

stones are slightly concave, so that there is a little more room between them at the centre, called the "eye", where the grain comes in, than there is at the edge, where it passes out as flour. The runner stone is balanced on the top of a spindle, and the space between it and the fixed bedstone, at the centre "eye", is just sufficient to admit a grain of wheat, while at the periphery the stones should almost, but not quite, touch. They should allow the bran to pass out in flakes without entirely breaking it up.

The grain, entering through the eye, is drawn in between the stones. First the bran is rubbed off, and then the inner part of the grain is gradually reduced to flour, with its natural particles preserved. The way in which the wheat is impelled through the mill is a wonderful piece of mechanism, almost like a living process, that of swallowing. It is truly a meeting of the mechanical and the biological.

If a finer meal is required, this should be obtained by sifting out some of the bran, not by a heavier milling, which would heat the meal and so destroy some of the vitamins. Some of the small modern mills are not at all suitable for making wholemeal flour. The grinders are made of some synthetic composition, and they revolve at a great speed, making the flour quite warm with the friction.

I once had some wheat ground with one of these machines, and some of the same wheat ground at the same time in my own mill with Derbyshire greystones. The two samples were immediately sent to an analyst to be tested for vitamin E. His report stated that the vitamin E content of the meal ground with the greystones was 25% higher than that of the meal ground with the composition stones. The analyst added: "Vitamin E is particularly susceptible to oxidation in the presence of heat. This oxidation is also catalysed by the presence of small amounts of iron, and I am of opinion that these facts are responsible for the loss of vitamin E which occurs in modern milling".

It may come as a surprise to many people to learn what an enormous amount of heat is generated when two apparently smooth surfaces are rubbed together under even slight pressure. In *The Times Review of the Progress of Science* (Spring, 1952), there is a very interesting article called "Friction and Lubrication", by Dr. F. P. Bowden, F.R.S., in which he says: "The surface temperature developed when a metal slider rubs on steel, at a speed of about 10 feet a second, momentarily reached white heat (1,000° C.) at local points of contact, *although the metal appears cool*".

Two points emerge from this: one is that iron or steel are not the best materials to use for flour milling, and the other that pressure and friction can produce intense local heat, even though it is imperceptible without the aid of special electrical apparatus.

Recently, when I was shewn round a modern flour mill, I was most impressed by the enormous amount of capital that was laid out in machinery. I couldn't help comparing this with the modest little

plant necessary for making wholemeal. I calculated that for every pound spent in setting up a mill to produce wholemeal flour, it would take fifty pounds to produce the same amount of white flour: a glaring instance of receiving less and less for an expenditure of more and more.

When I began this account of some of my experiences whilst "going through the mill", I spoke of the fear of starvation that drove me to take up farming as my vocation. The shortage of food seemed to be a personal or family affair at that time, but as the years passed it became evident that it was a national complaint. To-day it is recognised as a world problem, if not *the* world problem of the future.

Statisticians tell us that if we cultivate all the land at our disposal and make use of all present-day methods with machines and chemicals, the food provided will still not be enough to keep up with the increase of the earth's population for very long, the way things are going now. It is not so much labour-saving machines as food-saving machines that can help us. In the past we have too often tried to adapt food production to the requirements of the machine. This idea will have to be reversed, and machinery applied only where it does not detract from the quality and feeding value of the food.

The resources of the earth have been explored and exploited almost to the limit. We must now turn for our support to the limitless spheres of the universe and the imponderable forces behind all created things.

EDWARD BULWER-LYTTON

Otto Palmer

THE longer and more thoroughly one studies Bulwer-Lytton, the harder it is to grasp his personality. In the foreground stands the figure of an English nobleman of good family, proud of his descent from the Hastings conquerors, firmly attached to the traditions of aristocratic society. In all this he is entirely a child of his time, a dandy among dandies, immersed in the politics of his country, and so on. Within his soul there are quite different elements: deep feeling, enhanced to an almost pathological melancholy, an almost extravagant sensibility; but these weaknesses are cloaked in a mantle of pride and inaccessibility.

In his aims and aspirations this duality comes out. His nature has a markedly idealistic side, and a just as markedly utilitarian one. And this conflict in Bulwer's breast continued up to the day of his death. It finds expression in many of his novels: most clearly, perhaps, in *Kenelm Chillingly*, which appeared posthumously in 1873. One cannot excape the impression that in Kenelm the author is describing the side of himself which strives after the ideal, whereas the worldly-wise cousin, Gordon Chillingly, represents the utilitarian side. If the one inclines to romanticism of an almost sentimental kind, the cool reasonableness of the other borders on cynicism.

Under the aspect of an English gentleman, in this soul so full of contradictions, dwelt a spirit striving towards the highest goal, filled with a consciousness of its mission; a spirit which brought the life of the aristocrat into perpetual dramatic conflicts; which prevented convention from blocking the flow of creative forces. A spirit, indeed, strong enough to wrest the greatest literary success from the greatest personal tragedy: the appearance of *The Last Days of Pompeii* coincided with the break-down of Bulwer's marriage and his legal separation from his wife.

However clearly this spirit may be perceived in the drama of Bulwer's life, it is far from easy to detect in the manifestations of his inner consciousness. He wraps himself in a veil, which allows only blurred contours to appear; he is incapable of guiding his vacillating soul in any definite direction. In his deepest depths he is silent, hiding himself more or less deliberately from his contemporaries.

Faced with the choice: politics or literature—both lying for him in the realm of possibility and interest—he decided in favour of literature. For, apart from all worldly ambition, he wished to accomplish something for mankind. And he reached this goal. "The demand for his works seemed to be limitless", an English author said of him.

Edward Bulwer, son of General Bulwer, was born in London on May 25th, 1803. As his parents were not on good terms, he was

brought up, from his very first days, under the exclusive influence of his mother. His two brothers were adopted by relatives, whereas even after his father's death in 1807, he continued to live with his mother. This bond was of decisive significance for his whole development. Through his mother, a daughter of the eccentric scholar, Richard Warburton Lytton, he absorbed the traditions of the Lytton family, and with them the breath of English history. It gave him a feeling for that kind of personal life which is at the same time more than personal, and this later pervaded his splendid historical novels. He bore it in his blood, and in the formative forces of his childhood.

It was fully in tune with this way of life that something like a prophecy of future greatness was twice uttered over him—first in his infancy, and later, in his early twenties, by a gipsy girl. "When I was yet in arms," he records in his autobiography, "a man with a wild air abruptly stopped my nurse in the streets, and, looking upon me strangely, asked whose son I was. My nurse replied that I was the son of General Bulwer. The stranger then, with much solemnity, took me in his arms, and uttered a prophecy to the purpose that I was to be greater than my father, and something quite remarkable. Then, hurriedly looking round him, he threw me back to the awe-stricken nurse, and darted off with such rapidity that, in telling her story in after times, she may probably have said that he suddenly 'vanished'. Poor fellow! he was mad, and had escaped from his keeper. Within half an hour afterwards, he had drowned himself."

This way of presenting things is characteristic of Bulwer's style and attitude to life. No doubt he took the episode seriously, else why should he relate it? At the same time he presents it ironically, so as to veil what it means for himself.

Later on, Bulwer attended all kinds of different schools. These repeated changes were in keeping with his stormy and difficult character.

Deeply incisive and determinative for his future life was his first love, which in his seventeenth year overwhelmed the boy with elemental force. The girl was a year or two the older; he met her daily for part of one summer in the country near Ealing; their meetings were unknown to anyone else. Then she had to go away; and some months later he learnt that her father had compelled her to marry another man.

"When that tragedy was over," he writes, "I felt myself changed for life. Henceforth melancholy became an essential part of my being; henceforth I contracted the disposition to be alone and to brood. I attained to the power of concentrating the sources of joy and sorrow in myself. My constitution was materially altered. It was long before I knew again the high animal spirits which delight in wild sport and physical action. Till then I had been irascible, combative, rash, foolhardy. Afterwards my temper grew more soft and gentle, and my courage was rather the result of pride and

jealous honour than the fearless instinct that rejoiced in danger. My ambition, too, became greatly subdued, nor did it ever return to what it was in boyhood."

A few years later, when Bulwer was 21, he visited the grave of his early love. She had died of a broken heart. From her death-bed she had written a few lines to her friend, begging him to visit her grave, and he made it the goal of a walking tour. "There was a spot," he writes, "which I had long yearned to visit, with such devout and holy passion as may draw the Arab to the tomb of the Prophet; a spot in which that wild and sorrowful romance of my boyhood, which had so influenced my youth, lay buried for evermore. And until I knelt alone, and at night, beneath the stars at that shrine, I felt that my life could never be exorcised from the ghost that haunted it—that my heart could never again admit the love of woman, nor my mind calmly participate in the active objects of men. I performed that pilgrimage. What I suffered, in one long, solitary night, I will not say. At dawn I turned from the place, as if rebaptised or reborn. I recovered the healthful tone of my mind, and the stage of experience and feeling through which my young life had passed contributed largely to render me whatever I have since become."

It seems to me that in contemplating this experience, one sees the incident in Bulwer's life which gives the key to his whole character. How deeply this event influenced his inner nature, and with what intensity it persisted in his soul, never once yielding to forgetfulness, may be gathered from the following account. In the last year of his life Bulwer was working at the already mentioned novel, *Kenelm Chillingly*, into which flowed much of himself. At that time his son and daughter-in-law were paying him a visit. The son records:

"My Father read the manuscript of *Kenelm* to my wife and myself, and at particular parts of it he could not restrain his tears. Throughout the day (it was New Year's Eve—the eve of the year of his own death) on which he finished the chapter describing Kenelm's sufferings above the grave of Lily, he was profoundedly dejected, listless, broken; and in his face there was the worn look of a man who has just passed through the last paroxysm of a passionate grief. We did not then know to what the incidents referred, and we wondered that the creations of his fancy should exercise such power over him. They were not the creations of fancy, but the memories of fifty years past."

After this pilgrimage to the grave of his beloved, Bulwer went up to Cambridge. There he continued his literary efforts, already begun in school; and they were well received. At the university he met Macaulay, and the result of this meeting was characteristic. "I remember well walking with him, Praed, Ord and some others of the set along the College Gardens, listening with wonder to that full and opulent converse, startled by knowledge so various, memory so prodigious. That walk left me in a fever of emulation. I shut

myself up for many days in intense study, striving to grasp at an equal knowledge: the trophies of Miltiades would not suffer me to sleep."

At the end of his student period, we find the young English aristocrat roaming through the country, on foot or on horse-back. He met with all sorts of adventures. For instance, on one occasion he lived in a house near Windermere with a man suspected of murder. He sought out Robert Owen, the social reformer, and showed much interest in his endeavours. He travelled for some days with a man whose occupation was not clear to him, until after his companion's sudden flight. The man was a highway robber!

Later, when studying the London underworld for his novel, *Paul Clifford*, Bulwer once went into a pot-house. Here, he was—intelligibly—regarded with suspicion. The door, however, opened, and in walked the leader of the company, his travelling companion of the north. Immediately he was admitted to that circle with the best of good will. Wolfee, the man in question, was later executed.

Bulwer's wanderings came to an end when he made the aquaintance of Lady Caroline Lamb, who for many years had been a friend of Lord Byron. An intimate relationship with her began, but had an unpleasant ending. Bulwer then made his first continental journey—to Paris. There he came to know Mrs. Cunningham, who met him with cordial friendship. An author for whom Bulwer did not particularly care, said of this lady: "The period of her influence was very short, and, although she succeeded, by wise sympathy and unobtrusive guidance, in restoring the balance of his mind, which has been upset by Lady Caroline Lamb's frivolity, she was unfortunately not at hand to watch over the next stage of his destiny."

Returning from Paris, Bulwer found his mother just starting out for an evening party. She begged him to go with her. His son describes the incident: "Though fatigued by his journey, and in no humour to appreciate the mild delights of a literary tea-party, he dressed himself in haste, and accompanied his mother to the house of Miss Berry. There, in one of the rooms not yet invaded by other guests, they renewed their tête-à-tête; and, whilst thus conversing, Mrs. Bulwer Lytton suddenly exclaimed: "Oh, Edward, what a singularly beautiful face! Do look. Who can she be?'

"An elderly gentleman was leading through the room in which they sat a young lady of remarkable beauty, who, from the simplicity of her costume, appeared to be unmarried. My father, thus appealed to, turned his head languidly; and, with a strangely troubled sensation, beheld (to use his own phrase) 'his fate before him': in other words, his future wife."

This episode sheds much light upon Bulwer's destiny. It was his mother who drew his attention to Miss Wheeler. And it was his mother who laid the very greatest obstacles in the way of his alliance with this lady. It almost came to an estrangement between mother

and son. It was his mother who did everything to upset the marriage. Bulwer himself regarded the meeting as a inevitable stroke of fate.

After an engagement, a broken engagement, and a re-engagement, the marriage at last took place. Two children were born, a boy and a girl. But after a short time difficulties arose. Eventually the marriage, having lasted ten years, led to a legal separation. And from that time onward the wife pursued her husband with hatred and calumny, in an almost pathological way.

Bulwer's literary career began in the first years of his married life, with the publication of *Falkland*. This first attempt already shows the play of supersensible impulses into human relationships. The idea of *The Last Days of Pompeii* came to him from the sight of a picture, during his first journey to Italy, in the company of his wife. In Rome he received the impulse for *Rienzi*. His studies for the *Last Days* were made in Naples, on the actual spot. The two novels were written at the same time. The *Last Days of Pompeii* appeared when the tragedy of his marriage was at its peak ; *Rienzi* in the year of the separation (1836), when *Zanoni* also was conceived. We are justified in saying that, with the separation, Bulwer's domestic life came, in essentials, to an end ; he now lived exclusively for his work.

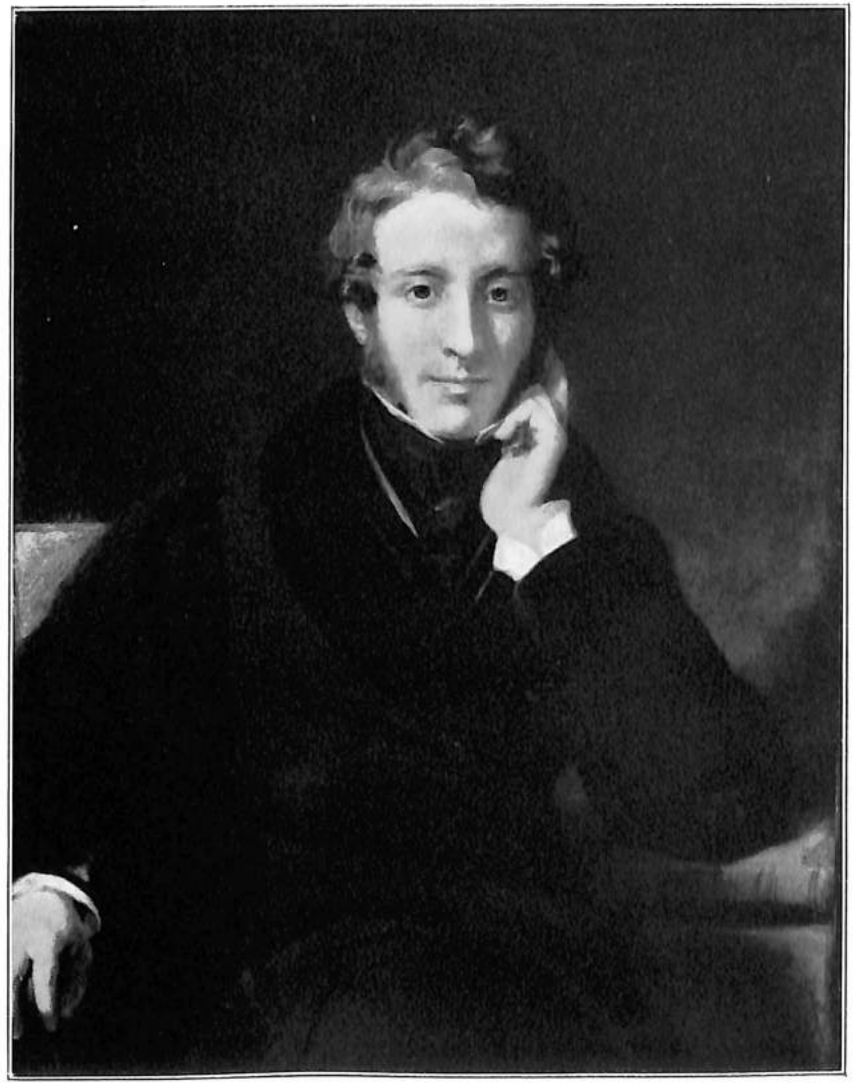
His working power was amazing. He wrote his novels, pursued comprehensive studies, edited a magazine, and was at the same time active in politics. His health was poor ; he had to be very careful of it. But this did not hinder him from achieving a brilliant career as an author. The fundamental purpose of this sketch must be limited to an estimation of this side of his life.

Paul Clifford helped to bring about reforms in the criminal law ; a political pamphlet strengthened the position of the Whigs in Parliament, of which Bulwer was a member from 1831 to 1841. Then he retired from Parliament, devoted himself entirely to writing, published novels, long poems, and a few plays, among them the comedy, *Money*, and *The Lady of Lyons*, both successfully produced in London.

His success with readers was immense. His works achieved a European circulation in a very short time. The critics, however, carried on war to the knife against him, and all his great public success could not console him for the antagonistic attitude of the reviewers. He suffered unutterably from it.

In 1852 he returned to Parliament, now as a Tory ; he was Colonial Secretary in 1858—59, and in 1866 was raised to the peerage as Lord Lytton, whereby his worldly ambition was satisfied.

That Bulwer occupied himself with all sorts of occult studies from an early date appears in much that his biographers—his son and his grandson—have written. In connection with the origin of *Zanoni*, his grandson tells us: "In 1835 his reading had



EDWARD BULWER
1st BARON LYTTON

from an oil painting by P. F. Poole, in the National Portrait Gallery

included some mediaeval treatises upon astrology and the so-called occult sciences; and while his mind was occupied with these studies. the character of Mejnour and the main outlines of the story of *Zanoni* were inspired by a dream. The ideas thus received were first embodied in an unfinished sketch of the subsequent novel, and contributed to the 'Monthly Chronicle' in 1838 under the title of *Zicci*. In no letters do I find any reference to the original dream, nor to the author's ideas at the time he was writing *Zanoni*."

Bulwer, however, did not stop short at theoretical studies of occultism and inspiring dreams; he had also practical experience in occult realms. This is shown in a letter to John Forster, dated February 12th, 1842:

"It is an age, my dear Forster, since I have seen or heard of you, wherefore I write, fearing lest you might have strayed into one of those huge folios and disappeared for ever from the outer world. I know by experience that those wizard old books are full of holes and pitfalls. I myself once fell into one and remained there 45 days and 3 hours without food, crying for help as loud as I could, but nobody came. You may believe that or not, just as you please, but it's true!"

This statement is enigmatic and contradictory. It is expressed in a way which makes the incident seem improbable. On the other hand, the final remark leaves no doubt that the whole was seriously meant. It is very characteristic of Bulwer's way of dealing with occult subjects. His style is such that one may think he is being ironical—but against what is his irony directed? Against the subject? Or, perhaps, the reader? Or, on the other hand, what he says may seem to be meant in all seriousness. Thus there arises a kind of chiaroscuro, a twilight, in which things lose their sharp outlines. A vague doubt is awakened, which leaves the reader the choice of taking the author's remarks as he pleases, but leaves him in doubt as to what the author himself means. This style, which veils in revealing, corresponds with the character of the author, the type of subject, and the circumstances of the moment.

We learn, further, that Bulwer was a member of the Society of Rosicrucians and Grand Patron of the Order. As this was a secret Society, it is not surprising that among Bulwer's papers there should be no documents which throw any light on his connection with it, nor any mention of it in his correspondence. The only reference to it is in a letter of July 3rd, 1870, to Hargrave Jennings, author of *The Rosicrucians, Their Rites and Mysteries*: "I thank you sincerely for your very flattering letter, and for the deeply interesting work with which it is accompanied. There are reasons why I cannot enter into the subject of the 'Rosicrucian Brotherhood,' a Society still existing, but not under any name by which it can be recognised by those outside its pale. But you have, with much learning and much acuteness, traced its connection with early and symbolical religions, and no better book upon such a theme has been written, or indeed, could be written, unless a member of the Fraternity were to break

the vow which enjoins him to secrecy. Some time ago a sect, pretending to style itself 'Rosicrucian' and arrogating full knowledge of the mysteries of the craft, communicated with me, and in reply I sent them the cipher sign of the 'Initiate'—not one of them could construe it".

However trivial these indications may be, they are enough to characterise Bulwer's inner position and attitude towards occult questions. How seriously he took them can be gathered from the degree of silence in which he wrapped them. Also the style of chiaroscuro, of twilight, of puzzle-picture, that he chose, becomes intelligible through these hints.

In Bulwer, then, we have a "connoisseur of ancient knowledge". Rudolf Steiner gets to the heart of his personality when he shows that "ancient knowledge" can no longer be absorbed into the modern consciousness. In his lecture on *The Fundamental Impulses of Old and New Mysteries* (*Devotion and Fear*), published in the Goetheanum Vol. X, No. 13, he says: "One must admit that as time has gone on, many men—not of the Central European but of the Western countries have learnt in their occult societies many things which have been preserved as tradition from the findings of the ancient wisdom. All this has been accepted without understanding, although often it has actually penetrated as an impulse into business transactions ... Men could only get an idea of these things; they could not push on to actual experience. A few individuals had inklings of them, no more. Through these inklings many men did certainly penetrate into the regions of experience now in question. And such men have often adopted strange external ways of life—as, for example, Lord Bulwer-Lytton, who wrote *Zanoni*. What he became in his later years is to be grasped only if we know, for example, how he absorbed the tradition of human self-knowledge, and how, through his peculiar individual constitution, he was able to penetrate at once into certain mysteries. For this reason, however, he withdrew himself from natural conformity with life. He is a clear example of the attitude a man adopts towards life if he absorbs this differently organised spiritual world into his inner experience—not only as a concept, but into the whole constitution of his soul.

"It was, of course, rather dreadful when Bulwer went about, uttering his inward experiences with a certain emphasis, and had a younger female figure with him, who played a harp-like instrument, and of whose playing he made use between the separate passages of his talk. He appeared here and there in social circles (which at other times he frequented in a quite philistine fashion) attired in his rather peculiar garb, and sat down with his 'harp-maiden' sitting in front of his knees. Then he would say a few sentences, the maiden would play, then he would continue his speech, she would play again, and so on. Thus he introduced something, which we can only call 'coquettish', into the common-place world of human philistinism—that philistinism to which mankind has become more and more addicted, expecially since the middle of the 15th century."

Let us turn now to *Zanoni*. It can be understood only by considering the side of Bulwer's character just described.

The Introduction leads us to Mr. Danby's bookshop. Of him Bulwer says: "Danby, the old magic bookseller in *Zanoni* was a reality. He is dead". A young man, represented as the later editor of the novel, seeks enlightenment concerning the enigmatic Society of the Rosicrucians. In the bookshop he meets an old gentleman, who proves to be a "connoisseur of ancient knowledge". From him he receives a number of hints concerning the Society and its traditions. Among other things, he is told: "I do not think that the masters of the school have ever consigned, except by obscure hint and mystical parable, their real doctrines to the world. And I do not blame them for their discretion." And in another place: "Can you imagine that any members of that sect, the most jealous of all secret societies, would themselves lift the veil that hides the Isis of their wisdom from the world?"

And indeed, when the first great revelation of ancient wisdom in the 19th century took place, Blavatsky's work bore the title, *Isis Unveiled*.

The style of this Introduction can serve as an example of what we have described above. It may be read in one way, or it may be read quite differently. And in the end we do not know whether the author seriously means what he says about the Rosicrucians, or whether he is making fun of them. It is all left in question. Yet the course of events in the story seems to presuppose a positive attitude. The old gentleman is in possession of a manuscript which he bequeaths to the young man with the charge of seeing to its publication. And to the inquiry whether it is "a romance", he replies "It is a romance, and it is not a romance. It is a truth for those who can comprehend it, and an extravagance for those who cannot."

The publication is not easy to arrange, for the manuscript is in cipher. And the deciphering of the code has to be learnt. The way in which this is described makes one feel that only a man who knows how to read occult script, as it is cultivated and practised in the mysteries, could thus express himself.

In the novel itself this motif reappears in the critical chapter where Glyndon conjures up the "Dweller of the Threshold". And there, too, the style of presentation is such as to strengthen the impression that Bulwer must have known what it meant to read occult script.

After this strange, opalescent, iridescent, bewildering Introduction, the story itself developes in quite strict form. There are seven "books"—a division not found elsewhere in Bulwer's works. Each has its own title: The Musician; Art, Love and Wonder; Theurgia; The Dweller of the Threshold; The Effects of the Elixir; Superstition deserting Faith; The Reign of Terror. This enumeration may seem superfluous, but in many later editions the titles of the separate books are omitted. And yet, in surveying the composition of the whole, they must be taken into account.

The fourth and middle portion contains the central peak of the inner drama. The development of the characters and the action, as it is worked out in the first three books, leads on to the meeting with the Guardian of the Threshold. All the characters take part in this event, although Glyndon alone experiences a direct encounter, through his magical conjuration. Such an event cannot remain without effect upon all the destinies bound up with Glyndon's. And all the destinies are related to his. Mejnour and Zanoni are allied to him, because his ancestor was closely connected with their Order; affection binds him to Viola, friendship to Mervale, hostility to Nicot; and in what a lifelike way all these relationships play their parts!

The last three books describe the effect of this occult experience on the persons concerned. Glyndon himself wanders through life mentally deranged, until Zanoni rescues him. His sister falls a victim to the horrible thing which he has drawn into his life. Mervale is only superficially affected, when the routine of his world is upset. Viola is overcome by some kind of enchantment, which alienates Zanoni from her. Nicot is sacrificed to his own intrigues. Mejnour has to learn that the time is not ripe to produce men equal to his methods of initiation. Zanoni forsakes the paths of the old initation, and follows the way of sacrifice and love.

Looking at the configuration of the whole, we can take pleasure merely in the composition, and must admit that we are in the presence of one of the most significant works of fiction. We become aware, however, that it was not written to entertain, but to express something of which the bulk of humanity is no longer conscious.

Mejnour and Zanoni are bearers and preservers of an age-old principle of Initiation. No one knows whence they come, or who they are; they have no home-land, no parents, no nationality. One appears eternally old; the other, eternally young. But the powers which they have developed are in accordance with this. Only in conjunction do they form a complete whole; each by himself is one-sided.

Mejnour's one-sidedness consists in his having developed wisdom alone. His wisdom is cold, untouched by warmth or love. For him human beings have no significance, but only wisdom itself. Power does not attract him, although he is consumed by anxiety to find servants for wisdom, new bearers of the principle he represents. Whether those he finds come to grief over it is of no consequence to him. In that case, the instrument was not serviceable, and is thrown away.

Zanoni lives in the fire of youth, purified by the pursuit of wisdom. He does not strive for power. His heart beats in tune with those to whose sphere he has attained through Initiation. He is impelled to intervene in the destiny of others, helping and bringing order. And when he meets the singer, Viola Pisani, he inclines again to the realms of human life, which he has outgrown in the pursuit of wisdom.

And he comes to the wonderful experience that the Earth—to which he had always assumed a perfunctory attitude, although he had always walked its paths for centuries—has great significance for the higher evolution of man. "Welcome!" the Hierachies greet him. "O purified by sacrifice, and immortal through the grave—this it is to die." And true union with the beloved is achieved in this sphere. "Companion of eternity—*this* it is to die!" An Initiate of the old order, who had lengthened his life to an earthly eternity, realises the secret of death. To this insight he has been led by love.

The struggle between wisdom and love is fought out and brought to a conclusion. Here an important secret is unveiled, and yet veiled.

Glyndon is the neophyte. Cupidity leads him to strive for Initiation. His unripeness causes his downfall. His self-conquest, the moral courage which he summons up later—but not too late—renders possible his deliverance from the consequences of his encounter with the fearful Guardian of the Threshold. He finds his way back into life.

Viola does not, herself, strive for Initiation. When Zanoni tries to lead her to it along his own path against her will, she shrinks back, afraid. She is alienated from him. But she, who is all love and nothing else, finds the path, through death.

The child, to whom Zanoni desired to bequeath his wisdom, is left. We see the infant alone in prison, without father or mother. We are told: "See! the orphan smiles! the fatherless are the care of God."

Thus to this book is entrusted as much of occultism and the secret of Initiation as can be made public in a novel. The moment of its publication is significant in the history of the world. It came out in 1842, the year when the "war in heaven" flared up.

So we may say: Bulwer appears as one of those occultists who—in the sense expounded by Rudolf Steiner in his lectures, *The Occult Movement of the 19th Century*—may be called "exoterics". He chose the form of a novel, and said of it: "It is a romance and it is not a romance." Ludwig Kleeberg, in his *Ways and Words*, quotes a remark of Rudolf Steiner's: "Zanoni is quite good. He who understands what is said in it will read it with much profit." And the moment of publication—whether a conscious choice on the part of Bulwer or a dispensation of karma—coming precisely at the beginning of the "war in heaven", suggests that some great intention lay behind the book.

If we can see in Bulwer one of those exoterics who aim at giving publicity to esoteric knowledge in an appropriate and feasible way, then we might expect that he would follow attentively the results of the compromise between exoteric and esoteric—namely, the phenomena of spiritualism. He writes to his son: "I have been interested in the spirit manifestations. They are astounding, but the wonder is that they go so far and no further. To judge by them,

even the highest departed spirits discovered seem to have made no visible progress—to be as uncertain and contradictory as ourselves or more so—still with answers at times that take away one's breath with wonder."

In another letter he writes: "From the most attentive enquiry I can give to the subject, I believe that these communicants, whatever they be, whether impressions which science may hereafter account for (as I think most probable), or imperfect, fragmentary and dream-like communications from agencies distinct from humanity, they serve no useful purpose, nor will conduce to any higher knowledge."

This last sentence seems to be specially significant, and characteristic of Bulwer's attitude.

One more passage from a letter: "All such phenomena, when submitted to the same laws of rational evidence which are adopted in Courts of Law as scientific investigation, are found to disprove the wild notion that they are produced by the spirits of the dead, or are by any cause whatever to be called spiritual in the proper meaning of the word."

The great dangers which lie in the misuse of ancient knowledge are described by Bulwer in *A Strange Story*. He was also well aware of the alarming possibilities opened up by the new knowledge which comes from the advance of technical science. This was the theme of his last novel, *The Coming Race*, which appeared anonymously during his life-time and was translated into German under the title, *Vril*. It is a prophetic, almost apocalyptic, novel.

An American engineer, in the course of his travels, finds himself in a mine which gives access to unknown depths of the earth. There he comes upon an underground world, artificially lit, "warm as an Italian landscape at noon, but the air less oppressive, the heat softer," and adorned with gorgeous vegetation. This region is populated by a human race unknown on earth. The men are taller than those on the surface. They are partly clothed in mighty wings, reaching to the knees, and they have other remarkable characteristics:

"But the face! It was that which inspired my awe and terror. It was the face of a man, but yet of a type distinct from our known extant races. The nearest approach to it in outline and expression is the face of the sculptured sphinx—so regular in its calm, intellectual, mysterious beauty . . . . The face was beardless; but a nameless something in the aspect, tranquil though the expression and beauteous though the features, roused that instinct of danger which the sight of a tiger or serpent arouses. I felt that this manlike image was endowed with forces inimical to man."

It is indeed to this enigmatic force that Bulwer gives the name of Vril. It is said to equal lightning in destructive power. In this capacity it provides the means of establishing habitable and cultivable levels in the desolate interior of the earth. From Vril is produced

the light which illuminates the darkness of these depths. It enables the Vrilya, as this race is called, to fly. With its aid, foreign languages are conveyed from one person to another, so that the stranger quickly learns the language of the earth's interior, and the inhabitants learn his. Vril is used for healing—"or rather for enabling the physical organisation to re-establish the due equilibrium of its natural powers, and thereby to cure itself." The numerous robots which do all the work in this country are set in motion by this same force. There is really nothing which cannot be managed by means of Vril.

What Bulwer describes most impressively are the social consequences of this discovery. There can, of course, be no more war, when Vril gives everyone the power to annihilate everyone else. If there is anywhere an excess of population, families emigrate, clearing a new district for tillage with the help of Vril, and settling there. These peaceful conditions give the author an opportunity to characterise, ironically, many features of the social institutions on the earth's surface. The stranger attempts to extol the achievements of democracy:

"Fortunately recollecting the peroration of a speech, on the purifying influences of American democracy and their destined spread over the world, made by a certain eloquent senator (for whose vote in the Senate a Railway Company, to which my two brothers belonged, had just paid 20,000 dollars), I wound up by repeating its glowing predictions of the magnificient future that smiled upon mankind—when the flag of freedom should float over an entire continent, and two hundred millions of intelligent citizens, accustomed from infancy to the daily use of revolvers, should apply to a cowering universe the doctrine of the Patriot Monroe."

The quotation of this speech evokes only head-shaking from the Vrilya. The guest is told that there had once been democracy in the subterranean regions also. The Vrilya look back on it as "the age of envy and hate, of fierce passions, of constant social changes more or less violent, of strife between classes, of war between state and state. This phase of society lasted, however, for some ages, and was finally brought to a close, at least among the nobler and more intellectual populations, by the gradual discovery of the latent powers stored in the all-permeating fluid which they denominate Vril."

If the peaceful circumstances of this subterranean realm gave Bulwer an opportunity to express quite candidly his views on social relationship in the world above—prophetically, for he wrote this novel in 1872—he nevertheless leaves no doubt that the evolution of the Vrilya had a very dubious side. The stranger is taken through museums, where he is shown cannon that had once been used for shooting, and where works of art—portraits—are also displayed. Concerning these he makes the following interesting remarks:

"Two things especially struck me—firstly, that the pictures said to be between 6,000 and 7,000 years old were of a much higher

degree of art than any produced within the last 3,000 or 4,000 years; and, secondly, that the portraits within the former period much more resembled our own upper world and European types of countenance . . . . These were the countenances of men who had lived in struggle and conflict before the discovery of the latent forces of Vril had changed the character of society—men who had fought with each other for power or fame, as we in the upper world fight. The type of face began to undergo a marked change about a thousand years after the Vril revolution, becoming then, with each generation, more serene, and in that serenity more terribly distinct from the faces of labouring and sinful men; while in proportion as the beauty and the grandeur of the countenance itself became more fully developed, the art of the painter became more tame and monotonous."

In this country there is indeed no art at all. No contemporary drama—only "plays of very ancient composition", somewhat resembling the Chinese. No literature—for what could anyone write about? At best, about technical matters. Men have become sterile even in their habits. And if we ask ourselves—against what was Bulwer warning humanity, which in his day was just entering the age of technology?—we must say: Against mind without soul.

With this warning, Edward Bulwer withdrew from the scene of earthly activity.

Translated by M. Bruce.

SHROPSHIRE MYTH AND LEGEND

George Trevelyan

Here is a beginner's attempt to apply to the legends of Shropshire what Dr. Steiner develops in his lecture on "The Interpretation of Fairy Tales." When I began to read the old tales recorded in Charlotte Byrne's "Shropshire Folklore" (1875) it was at once obvious that these fragments of myths surviving in our borderland were part of the fabric of European folklore, and that in the light of Dr. Steiner's teaching their powerful and universal symbolism took on a new importance.

I have used this approach in lecturing to adult classes in the county and have found that it always draws an immediate and positive response. People who come to enjoy the old folk tales are excited to find that these can carry a message of real significance for our own time. Indeed, the truths enshrined in the myths matter more to-day than ever in our history, for the simple reason that never till our age has the very existence of a hidden world of the spirit been wholly forgotten or denied.

We live in an age when doctrines have appeared which present man as no more than an economic animal, and indeed our attitude to the most practical social and political matters turns on our answer to the question, "What is man?" Sometimes the intellectual arguments of the materialist are hard to counter. Here the myths, apparently so far removed from our daily problems, rise again into importance. Appealing to something deeper than the intellect, they tell the fundamental truth about the nature of man in a form acceptable to the simplest folk. Quietly through the centuries the legends and fairy tales have spoken to those that have ears to hear of a living world behind the outer world of matter, of the soul of man struggling to unite with its own higher being, of a higher knowledge which he is for ever striving to attain. Seen in this light, the telling of fairy tales can in a real sense become a most potent weapon against Communism. Once people see that the old and timeless symbols, just because they are timeless, are as relevant to us in 1952 as to the ancient Greeks or Norsemen, they can realise that we talk folklore not merely for its antiquarian interest.

It has proved possible on this theme to give what is virtually a straight anthroposophical lecture, shorn of its jargon, to the most "ordinary" audience in a village hall. This can obviously be done in any of our counties and the richness of English folklore offers material which others can interpret far more deeply than is done here and can use as a valid and inspiring instrument for adult education. Let us consider some of the surviving Shropshire tales.

"Stokesay Castle lies in the valley near Craven Arms and on the hills on either side of it lived two giants. They kept their treasure

in a chest in the vaults below the castle, and when either wanted gold he called for the key, which was thrown from one to the other across the valley. One day a giant, feeling tired, threw short, and the key fell into the moat. There it lies to this day and many modern people have searched for it unsuccessfully and it is unlikely they will ever find it. Anyway, the treasure is guarded by a raven to prevent us getting at it."

I have been told that the local farmer, a Mr. Jones, has twice drained the moat to look for the key. Here is a charming example of the simple Celtic mind confusing the realities of two worlds. The symbolism in this tale is obvious and powerful, and as in all genuine myths, no word is without significance.

The hidden treasure can be taken as the higher knowledge for which men seek. Gold, the metal of the sun, is the symbol of life and wisdom. The key to the higher wisdom is lost in the moat, water symbolising the flowing forces of the etheric world where knowledge must be sought through the developing of imaginative cognition. Modern people are trying to find the key, but even if they succeed they will find the treasure guarded by the raven. Why a raven? This is the bird of death and also the bird of intellect, for the coming of modern intellectual thinking in recent centuries has been at the expense of the dying of the faculties of higher perception. It is even possible that the failure of the tired giant to throw across the valley symbolises the failing strength of the primeval forces.

Here are two legends about the origin of Shropshire's most distinctive hill, the Wrekin, which stands isolated above the river Severn:

"Two giants left their home in the hills of Wales to set up house by themselves. They dug out the course of the river and built the Wrekin and then quarrelled over their single spade. Coming to blows, the fellow with the spade was naturally overcoming his unarmed rival, when he was attacked by a raven in his single eye in the middle of his forehead. A great tear-drop fell, leaving a hollow in the rock known to this day as 'the raven's bowl', and always unaccountably filled with water. The blinded giant was buried under the Little Ercall Hill beside the Wrekin and there he lies to this day, and if you cross the Ercall in the night you may hear him groaning."

The giants represent some infinitely distant memory of the time before the coming of intelligence, when men were more closely connected with the powerful living forces of nature and still possessed faculties of perception symbolised by the single eye. The blinding of the 'Cyclopean' eye constantly reappears in different forms, and here, most fittingly, the "raven intellect" is the instrument. In the myths, great and living symbols concerning the development of the human soul have forged themselves into stories so powerful that they have survived down the centuries. Dr. Steiner suggests that these symbols probably rose to consciousness in the "intermediate

state between waking and sleeping." Here perhaps is the significance of the hint that if you cross the Ercall "in the night" you may hear the groaning of the giant, who, though deeply buried, is still alive.

The second Wrekin legend is surely "Odysseus of many devices" in Shropshire guise, able by his own cunning to outwit gods and giants:

"A Welsh giant, offended by Shrewsbury men who stole his eel traps, set out from South Wales with a great shovelful of earth, intending to dam the Severn and drown out the whole population of Shrewsbury. He lost his way when he had reached Wellington, some ten miles from his goal, and then he was met by a little cobbler carrying a sackful of worn-out boots and shoes over his shoulder. The giant asked him the way to Shrewsbury, and the cobbler, being a wary fellow, enquired first what he wanted in Shrewsbury. When he heard that all the inhabitants of the town were to be drowned, 'A-ha', thought he, 'then I shall lose much good custom.' So he tipped out his sackful of shoes and said, 'Look now, I have worn these out walking from Shrewsbury.' The weary giant, despairing of walking so far, dumped his load of earth where he stood and returned to Wales, and that is the origin of the Wrekin."

There are many variants on this theme, of which the Odyssey is the prototype. They tell of the evolution of human consciousness and the development of individualised intelligence. The giants, connected with powerful nature forces of an earlier epoch, are always characterised as strong and large but stupid. The cobbler is the ego discovering that by the use of his own thinking he can overcome his dull-witted opponent. In the blinding of Polyphemus by Odysseus, we see symbolised the old clairvoyance superseded by the awakening faculties of thinking.

Another comparable tale was given me by a member of the Women's Institutes. "A man-eating giant pursued his victim, this time a butcher, and, tripping, fell across the Habberley valley near Kidderminster. The butcher, on his way to kill a pig, quickly cut the giant's throat, and, because he was so large, buried him where he lay. Treasure seekers, opening his grave in later years, found that his nails had grown to such a degree that they were able to start the well-known horn factory at Bewdley."

This reminds one of a grim scene in Stevenson's "Master of Ballantrae"—" . . . they say hair grows on the dead." Hair and nails growing even on dead bodies suggests again the powerful life-forces we connect with the giants.

It is noteworthy that in the cobbler's story, as with Odysseus, there is no sort of moral element. The evolving ego with its developing intellect is at first purely selfish. A moral note, however, appears in the Shropshire tale of the "White Cow of Mitchell's Fold":

"In time of famine a marvellous white cow appeared behind Corndon Hill, giving an apparently endless flow of life-giving milk for all the folk of the district. All was well so long as each of the village housewives brought one receptacle and took just what she needed. One day, however, an old witch-wife came and milked the cow through a riddle into all the jugs and buckets she could bring. The poor cow was milked dry and wandered sadly away, to become the 'dun cow' of Worcestershire legend. The old woman was turned to stone and can be seen as a standing stone in the middle of a stone circle representing the 'fold'."

The common interpretation that Mitchell was the name of the farmer is clearly quite inadequate. Mitchell is no less than Michael, to whom the local church at Chirbury is dedicated, and the white cow is a divine creature bringing life-giving milk. In some versions of the legend, the milk brings wisdom. The spirit is infinite and the power of life and health flows from an endless source, but if used for selfish purposes the source will dry up, and any person who tries to gain and use this knowledge for his selfish ends will harden and become as lifeless stone. It is very interesting that in a Yorkshire variant of this myth, the witch milking through the riddle releases such an uncontrolled stream of milk that the whole valley is submerged. The forces of life, misused, may overwhelm us. Remember that the Wrekin giant proposed to divert the river as his weapon of vengeance on Shrewsbury.

The myths speak to us both of the development of the individual soul and of the general evolution of human consciousness. The "White Cow" legend may be taken as telling of the "famine" in the human spirit through the separation of man from the divine worlds of his origin, and of the presence of the Michael forces for those who can find the right way to draw on them.

The theme of the uncontrolled flow of water appears in a strange Shropshire survival, no less than a fragment of the Faust legend under the name "Dr. Foster". This was clearly a black magic play and it is said never to have been played to the end because, at the point of Mephistopheles' entry, the actors became aware of one too many actors on the stage or else because the theatre was "drowned out" by cloudbursts and torrential downpours. This indeed appears to have happened at the last recorded playing, in a barn near Clun in the 1870's. I suggest that Dr. Foster, who "went to Gloucester, in a shower of rain," is none other than Dr. Faustus tampering with the elements. A member of the Women's Institute at Malinslee told me that five years ago she heard some boys act a play called "Dr. Foster", but she could remember only that "the patient was laid out on the table and the devil came in through the window". There was some doggerel verse, but we have not yet traced it, since the man who taught the boys has left the county. Such treasures may still be found just below the surface.

One great Shropshire hero must be mentioned. In the legend of Wild Edric we have an example of how history passes over into mythology :

"Edric was a Saxon warrior chieftain who, like Hereward the Wake, kept up a heroic resistance to the Norman invaders, making peace only when he knew that after two years' fighting further opposition was useless. His followers, in protest against his capitulation, condemned him to live beneath the hill of the Stiperstones which is surmounted by an outcrop of rock known as the Devil's Chair. Here Edric waits, appearing only when his country is going to war. Then he rides forth with his Wild Hunt, accompanied by his fairy wife Godda, and above the roar of the storm-blast over the Shropshire hills the baying of his hounds can be heard, and those who see the Wild Hunt passing in the night have been filled with fear on recognising the outlandish garb of the warrior and his lady.

"Edric was well known to the lead-miners of the Shelve, for he used to guide them to the best veins by his tapping. His sword, they say, is bound by his girdle round the belly of an enormous fish in Bomere Pool, a bottomless mere near Shrewsbury. The fish escapes from the nets by cutting its way out with the magic sword, and will, indeed, never be caught until Edric's rightful heir returns to claim his estates at Condover."

Here we have one of the many legends of the hero waiting under the hill to come to the succour of his country in time of need, as in the case of Arthur, Charlemagne and Frederick II. The last time Edric was "conclusively" seen was in 1854. Rumour had it that he appeared in 1914, but he was not seen in 1939, and it is a relief to know that he has not been reported this year! Married into the fairy world, guiding the miners to the veins of lead, leading the Wild Hunt up from the nether regions—it seems as if his initiation has given him some control of the elemental forces, and that he is even able to use these in the fight between light and darkness. That his magic sword, obviously the counterpart of Excalibur, bound round the great fish, the symbol of life, will be recovered from the "water" only when Edric's rightful descendant comes to reclaim his inheritance, suggests the possibility of a modern initiation.

The Wild Hunt appears in many parts of Europe. In Yorkshire it is called the Gabbel Retchet or Gabriel's Ratchets (hounds). Here Gabriel, archangel of death, releases the hounds to seek out the souls of those predestined to die, just as Edric's hunt appears before a war.

I should like to conclude with an unrecorded legend from an island in the outer Hebrides, because it links with several told here and serves very well to show that the myths are not by any means idle folk tales told before the fire. This was found by my friend, Keith Henderson, talking to old Mr. McCallum, an illiterate fisherman in Benbecula :

"Twelve boys built a clachen or hut on the moor, and having reached the roof-tree, they said what a pity it was they had the

whisky and the pipes and if they had the lasses they could dance in celebration of the event. At that moment there was a knock on the door and there were twelve beautiful maidens. They invited them in and the dancing proceeded gaily until the piper noticed that instead of faces the girls had beaks, and instead of feet, talons. He dropped the pipes and ran for home, felt his plaid clutched, heard croaking in pursuit and reached his house in terror. Next day he took the neighbours back to the clachan, found blood trickling under the door and his friends all dead, their throats torn as if by talons and their eyes pecked out and the point in the centre of the forehead also pecked away."

Henderson recognised that here was the bronze-age war goddess, the Morrigu, who appears with her twelve handmaidens in the form of ravens before a war or battle. Much excited, he told McCallum that this was a very old story. "Old!" replied the old man, much offended, "It's not an old story, it happened just before the war" The date was 1930. There are two points to note : first, the myth was still operative in McCallum's mind, for the Morrigu appears before a battle. Secondly, he knew—or all but knew—to whom it happened and where. As with Mr. Jones at Stokesay, the symbols of the myth were to him a reality which became confused with the physical reality and his simple Celtic mind was unable to distinguish fable from overt fact. Thus the myths and fairy tales will survive now among simple folk, even though they began as powerful and universal symbols coming alight in minds able to move in the world of imaginative consciousness.

To me the clachan appears to represent the human body, and the youths the twelve-fold faculties and senses connected with the Zodiac. When the roof-tree is in place—perhaps puberty?—the ravens of death enter in disguise and only one boy, the musician, is able to detect their true nature. Again, the ravens peck out the point where the pineal gland is situated, that mysterious organ connected with the ancient powers of clairvoyance and also perhaps with latent faculties of perception.

This will be enough to suggest the delights of legend-hunting, and members of country audiences prove only too willing to delve down into their memories for old tales. Our folk-lore is fast vanishing for the simple reason that its traditional significance has died for modern minds. To find in it a new significance appealing to our understanding would be the only true form of revival.

THE FEAST OF TORRO

John Bolsover

The opening chapter of a novel : the setting is the Peak District, Derbyshire, in Neolithic times round about 2000 *B.C. The central figure is a boy called Hare, who is chosen from a tribe of Mesolithic hunters surviving in North Staffordshire and later trained for the priesthood and initiated.*

Hunters and dogs sleep on a narrow shelf under an overhanging outcrop of limestone, their bowstaves and flint-tipped spears beside them. At each end of the lodge a heap of grey ash smoulders.

Overhead the constellations wheel slowly, glittering with unearthly fire, and all around the trees crowd close.

Not a leaf rustles. The stillness of the night lies on the earth.

Suddenly the Headman, lying a little apart from the huddled group raises his head and listens. Simultaneously, men and dogs are awake wide-eyed ; alert, listening.

The Headman calls softly, "Hare", and a thin long-legged boy rises, rakes the fires, and casts twigs and wood upon them.

Far away, the wolves cry. Faintly, the night air trembles with the long ululation of melancholy and despair.

The boy slips back into his sleeping-bag, and turns to the man beside him.

Aka, lying close, sees the fiery sparks in the pupils of the boy's eyes, the flicker of flame-light on his features, and hears his voice, "Aka, why do the fierce ones cry like that?"

Aka whispers, "When the Moon mocks them, saying, 'Dumb ye are, goers upon four feet' ; then cry they unto the Gods, bewailing their dumbness".

The Headman speaks, and the hunters fall silent.

"Who has ears like Urza? Speak, Urza".

Urza's voice sounds in the darkness, "Behold, the dogs call, and the bitches have whelped in the holes by the Winking-eye Rock, or near to it".

The Headman says, "What will the Master say if the children of the fierce ones gather so near the Circle? Therefore, tomorrow two shall go and smell out their holes, and when the hunt of Torro is done, we will take them young, and give their blood to the Earth-mother".

He raises his hand, and as it falls, adds, "But now let us sleep".

Next morning, they rise, stretch themselves, gather their weapons, and fill the air with the sound of their voices. By twos and threes they go to the place of easement appointed by the Headman.

The fires flame, and the rich smell from the lumps of roasting venison drifts about the camp.

When the first rays of the rising sun whiten the tops of the limestone crags, a short blast from the Headman's horn summons them to the flattish space beyond the fire.

Boys with water-skins pass by the kneeling men, filling their mouths from the jets, and the hunters rinse out their mouths and spit out the water.

The Headman and hunters fall down on their hands and knees with heads towards the East ; the gong-beater, drummer and whistler make music, and with their faces to the earth they begin to chant ;

He comes, He comes,
Bringer of Life, Bringer of Life,
Open again, open again,
Is the gate of morning.

They repeat the short phrases over and over again, the rhythm of music and chant blending ; and presently, following in movement the Headman, they rise to their knees, then on one knee, and finally stand erect, chanting

We are men ; we are men,
Goers upon two feet.
Upright standing,
Upright standing,
Sons of the Sun are we.

The chant ceases, the Headman signals ; they disperse, and breakfast begins.

Aka, sitting near Hare, dusts a strip of meat with wood-ash, bites at it, cuts it off at his lips with a flint knife, and reaches for a handful of young dandelion leaves.

When his mouth is empty, Aka says to the boy, "Fill not thy belly full ; for we go far this day."

When they have eaten, the Headman, according to his wont, asks, "Have the Gods spoken to any in the night ?" and Aka replies, "O Chief, Hare the Leaper has dreamed a dream."

The Headman commands, "Stand forth, Leaper," and the boy stands in the midst of those sitting round the fire.

The men stare at Hare uneasily ; for his forehead's dome, deeper blackness of hair, shape of mouth and length of leg, mark him out from the tribal norm.

Conscious of separateness, the boy, trembling, begins in a low voice.

"O Chief, I saw a pack of the fierce ones running, bright of hair, fiery of eye, full of strength, and running on the outside of the pack, a white wolf. And at night, they lay down in a great cave close together, but the white wolf lay apart, and he was cold. This I saw many times, and always the white wolf lay cold.

"On a night, the Headwolf rose up and spoke, saying, 'Brothers, is not this one white because of the anger of the Gods ? Come then, and let us kill him,' and the white wolf fled, and, behold, I knew him for myself, and the pack pursued him, slavering.

"When his lungs were bursting and blackness pressed against his eyeballs, he saw a hole, and putting his head through it, saw the night and the crescent moon lying on her back.

"Then the Moon cried, 'Jump, White One, jump,' and he jumped ; and the brightness of the Moon blinded him, and he cried out, and I awoke."

Hare finishes, bodies relax, murmurs arise, and all heads turn to the Headman, who says, "Who among us can read this dream ? When we are come to Torro's Pass, the Wise Woman shall hear it, and she will draw out for us the pith of this night-feather."

Soon, they go up the Dale ; the rain clouds gather, and as rain falls steadily, making streaky channels down their legs, and washing clean their feet, they begin to chant to the rhythm of their marching.

Twice, Aka stops Hare and bids him listen ; once where the track crosses a stream above a slight fall, and Aka says, "Hear the voice and know it in mist or darkness. After much rain or little, the song changes, but the voice is the same," and Hare, listening, lives in the music of many little waters ; and again, when they are high up, treading the short turf on a limestone shelf where a hawthorn marks an abrupt turn, Aka says, "See how the green buds tremble at the touch of the Beings of Air. Listen, the trees gives voice ; hear the voice and know it in darkness."

Before the sun has climbed to the zenith, the entrance to Torro's Pass is reached. On either side of the high valley the bare limestone cliffs rise steeply, and at the base of the northern side several caves open smooth water-worn mouths above a rim green with grass and budding shrubs. Before the largest of these the hunters light a fire, and build it up into a long narrow blazing heap.

In the pass itself, from the naked rock on the skyline, there is a steep slope of limestone scree, looking as if it might move, but held motionless by the small rowan trees which grow here and there.

The hunters are busy repairing a ramp of stone and earth, the work of past generations of hunters, which runs alongside the limestone cliffs to the south of the entrance. It is holed with pitfalls, and these, because the ground is too stony for digging, have been made by building upwards.

In the darkness before dawn Hare feels a touch, awakens, and hears Aka whisper, "Come," and Hare slips out of his bag and follows Aka. Cautiously, noiselessly, Aka leads the boy to the mark-stone at the exit of the Pass.

The stars glitter fiercely through the rain-washed air.

Hare whispers, "How great is the night."

Aka murmurs, "The Gods cast their net over all the children of Earth," and when Hare has put his chin in the hollow on the top of the mark-stone, Aka says, "Behold the Constellation of the Cruth-player. When he rises over the Pass, Torro's coming is near."

Next morning, scouts and dogs are despatched. Before midday, a great gathering of men, women, and children arrive, and for the rest of the day make ready for the killing.

The Headman takes Hare to a skin tent, one of a cluster near the communal fire. An old crone, white-haired, her face a criss-cross of wrinkles, is squatting on a bear-skin. She peers at them from dim eyes, motions with her hand, and they seat themselves at her feet.

"O wise and ancient Mother, hear the boy's dream, and of your wisdom interpret it, so that what the Gods command we may do," says the Headman respectfully.

"O Chief, can I read every dream? But let the boy place his hands in mine and speak."

At the sound of the voice, Hare's spirit trembles with awe, and he hardly hears his own words as he relates his dream.

When the sound of his voice ceases, there is silence while the old woman's absorbed unfocussed gaze rests upon the boy. Then she again becomes aware of his physical presence, and takes his head and presses it to her bosom. Hare's cheek sinks into the soft, black fur, and she murmurs dreamily, "Listen to the ancient heart beating in darkness, and remember it when your own heart beats in darkness." She pauses; the boy presses his head against the soft fur; then pushing him gently away, she says, "Go now, my son," and Hare rises and leaves the tent.

To the Headman, whose whole form asks a question, she replies, "Torro comes in strength; there will be a great killing. The rest let lie in time's womb."

Seeing the Headman is puzzled, the Wise Woman adds, "The omen is for meat, much meat. Content you with that."

The Headman's face clears, he says, "True, the omen is good. O Wise Woman, may your wisdom live long," and rising, he walks backwards from the tent.

As he comes near the caves, he glances up the cliff, sees that the scouts on the top are making smoke, runs quickly to the foot of the cliff and scrambles up. Here the two scouts, using a large skin, are covering and uncovering a green-wood fire, and the smoke is rising in great puffs. He shades his eyes and sees, far to the East, similar puffs arising.

The older scout, without moving his gaze from the distant signals, says, "Tomorrow, Torro reaches the pass while the sun is yet high."

Next morning, when there is light to see, the Headman goes round the pitfalls, and one comes running to him, saying, "O Chief, Oba the scout has news."

The Headman says, "Run you to say that Oba has news?"

The runner says, "O Chief, the news of Oba no man knows; yet that Oba has opened his eyes in the light, all men may know; for it is written upon him."

The Headman stands still a moment, murmuring, "Oba has opened his eyes in the light," then quickens his footsteps, saying, "Come then, quickly, quickly."

A group stands silent by the cooking fires, and when the Headman appears, Oba comes running.

When Oba stands still, drawing his breath, the Headman sees that Oba has the remembering look.

Oba speaks, "Before dawn, as I lay asleep, one spoke to me saying, 'Open thine eyes,' and I opened the eyes of the spirit, and I saw men lying asleep beside a dead thunder-riven ash. Close by the tree was a stream and a beaver-made pool. As I watched, he who had called me rose and stretched out his hand pointing; and I felt the waft of his strength, and knew him for a priest. And he beckoned with his hand, saying, 'Come quickly.' And I awoke, and remembered the pool and where it was.

"When there was enough light, I went to the pool beside the riven tree and found the men. And the priest commanded me, saying, 'Go with swift feet and tell thy Headman to send burden-bearers to bring us to thy camp.'"

The Headman asks, "Is the pool far off?"

"While I came here from the pool, two hunters could flay three bucks."

"Are the bearers spent?"

"No, Chief, they are weary and hungry, but can still go on their own feet."

After a moment, the Headman says, "Go to the Wise Woman's tent and tell her to gather together the women. Take the woman and and bring in the wanderers. Let them be fed and stay in the women's camp. Let the Wise Woman say to the Priest, 'O Master, the Headman will bend his knee to thee when the hunt is over.'"

The scout departs running, and the Headman makes haste to the caves, where the hunters are about to break their fast.

"Eat lightly," says the Headman; "for do ye not dance with Torro this day? Tonight, ye shall fill your bellies twice and thrice over."

After the meal, a barricade of bushes dried at the cave fire is built across the valley to the ramp, so that only the way over the ramp is clear, and dried grass is plentifully strewn upon the bushes.

Opposite the pitfalls, the bowmen add a stone here and there to the parapet protecting their platform, a limestone ledge under the cliff.

When the sun has climbed higher towards the zenith, smoke signals rise from the cliff top, and the scouts come down to report to the Headman that Torro has entered the Pass.

The sun shines, and the air in the valley is still. Overhead, luminous clouds float slowly by.

Hunters, glancing upwards and knowing rain will not fall that day, are jovial.

At the camp up the hill, nearer to the Shivering Mountain, the women smile, and the children gambol.

In the Pass, the limestone crags warm in the sun's rays. The bird song, insect hum, butterfly shimmer, pour upon the sun-warmed air violence of joy.

On the way into the Pass, the sun shines on ten thousand backs, and twice ten thousand horns.

When the whole herd has crowded through the entrance, the scouts and dogs begin to close in at the rear. The scouts throw stones and the dogs harry and bark. Half-way down the Pass, the women, squatting high up on the scree, rise up screaming and throw stones.

At a given signal, hunters with blazing branches set fire to the barricade.

The leading bulls, scenting the fire and smoke, brace themselves on stiff forelegs.

The narrow track is jammed with hairy bodies. Heads toss in the air, as, pushed from behind, scores of beasts rear up with forelegs on the hindquarters of those in front.

The confined air shakes with bellowing sound ; suddenly, the whole herd projects itself at the gap between the blazing barricade and the cliffs.

As the herd surges up the slight incline and on to the ramp, the first two pitfalls fill quickly, and a few beasts spill over into the third, breaking through the turf-covered saplings, and falling into the pit beneath. But many oxen fall into the first two pits with their bellies on the backs of those beneath, and for a few seconds the tremendous mass halts swayingly, before irresistible pressure carries the herd over the side of the ramp into the flames of the barricade.

Smoke-blinded, fire-stung, the great beasts charge forward ; the barricade is trampled down by thousands of following hooves, and the Pass is solid with brown-haired backs, so close-packed, that the smoke is smothered. But in the air there is the strong smell of burnt hair.

On the high ground above the caves, the women and children gesticulate and scream continuously, and the archers and hunters are shouting. The herd is silent except for panting breath and thudding hoof. Now man and beast are conjoined in bloody fraternity. Where the shuddering mass still heaves over the pitfalls, hunters have scrambled down the scree, and with tremendous strokes swing two-handed stone hammers to the skulls of the struggling beasts.

Motionless and absorbed, Hare stands behind Joro, who is at the end of the line of bowmen on the cliff-ledge.

Joro is naked except for his breech-skin. On his left wrist, a polished-bone wristguard whitely gleams. His arrows, replenished by Hare as they are used, are stuck in a clay roll laid on the parapet. They are stained with Joro's colour.

Joro stands with his body at right angles to the herd, his face looking over his left shoulder and his chin a little dropped. With smooth leisurely movements, he picks up an arrow, notches, and as he straightens himself, the bow is nearly drawn. He full-draws with two finger-ends strong as flints. As he aims, drawing to the chin, the great shoulder muscles leap up beneath the skin, and tiny beads of sweat run together.

To Hare, the great black bow is part of the living man, and he feels the waft of Joro's power.

In a few minutes Torro is through the Pass, and the hunt of the wounded beasts begins. Soon, the hunters are joined by the scouts from the rear and dogs with lolling tongues.

The herd has followed the old trail which enters the forest in a south-westerly direction. Between the end of the Pass and the beginning of the forest, the earth is almost treeless for two hundred paces, and this space is dotted with disabled beasts.

Hare now is inside the cave filling a bag with flint skinning-knives and scrapers. Unconsciously, he hears a noise made by the women and children outside.

They begin to scream with peculiar urgency. For a long receptive moment Hare is frozen motionless, before the inspired fear brings him out of the cave with a rush to where a large rowan tree grows out of a cleft in the limestone. Here the rock slopes steeply to the grassy plain a few feet below.

Almost under the tree, he sees man and beast running. The beast's great horns, flatly curving outwards and forwards with in-curved tips, are two paces from the runner. There is death in the horns, but the face turned towards Hare is undimmed by fear.

For a moment without duration Hare's gaze is held, and time stands still. The runner smiles, and as he smiles his black eyes envelop Hare and drown him in a great exhilaration. Hare's legs bend under him and he leaps mightily past the man on to the neck of the pursuing bull. He falls with his legs astride and his face in the matted mane.

The great beast momentarily stumbles, and then, gathering strength, tosses the boy high in the air. The rowan tree receives him, the slender branches bend without breaking and cushion his fall, and he slithers to the ground.

The bull's last effort is too much for his arrow-pierced lungs, and he falls heavily, blood gushing from mouth and nostrils. His large dark, smoky blue eyes glare defiantly, and then dim as his life-force drains away.

Now the women rush at Hare, shouting with amazement, and feel him all over with their hands.

"Truly," they cry, "thy sister rowan loves thee well."

But Hare has eyes only for the stranger, and as the woman's eyes follow his, they too fall silent.

The stranger's short linen robe and hide sandals they have seen only on priests, but they are silent with awe because from his brow and eyes the seer looks forth.

The strange priest, still breathing deeply, puts his hand on Hare's head and says, "Well, grasshopper, how art thou named?"

The boy murmurs reply, "O Master, I am called Hare the Leaper."

The priest smiles, "Thy name fits as close as the skin of a new nut."

Hare looks into his eyes and his inner being is suffused with joy.

Dismissed with a wave of the hand, Hare goes running back to the cave and retrieves his bag of knives and scrapers.

Now the Headman comes, and kneels at the feet of the priest, who says, "Speak, O Chief."

"O Master," says the Headman, "here are some whose spirits are loosened. Willst give them strength?"

The priest says, "Show me them."

When they are come to the wounded hunters, the spirit of one has already departed; another screams continually, for his belly is ripped, and his entrails protrude. A third lies with both legs broken, and the fourth has a broken arm and many bruises.

Now the priest, standing before the screaming man, says, "Move him."

The women slide a skin under him, and six carry the man. After they have walked forty paces, the priest motions, and they set the man down gently, and depart beyond earshot.

The priest, kneeling by the hunter, holds his hands firmly, and leans over, looking into his eyes. The man writhes, but when his eyes meet the priest's, his gaze is locked. His mouth still screams.

The priest bends closer and, still holding the hunter's gaze, pronounces the sacred syllables.

The man's spirit is freed. His limbs relax and his eyes close. His lungs continue to fill and empty with heavy breathing, and his beating heart shakes his bosom.

The priest covers the face with a corner of the skin, and returns to the Headman. He looks at the two wounded hunters and says, "In these the spirit still lives strongly. Bind them as is your custom."

Now the whole tribe is busy cutting up or flaying. They have pulled down the sides of the pitfalls, and with hide ropes haul out the dead beasts. Where a beast has been flayed, the women have pegged out the skin and scrape it with flint scrapers or rub it with brain pulp. Others build smoke houses for smoking the meat.

When the sun's level rays steep the valley in mellow light, the women in twos and threes begin to slip away to prepare the feast of fresh-killed meat.

Where the Dance of Torro's Might is to be held, the stakes have been driven into the ground, and the wood for the eight fires heaped up ready for kindling.

As the sun-light dies, the unveiled stars gleam palely, and a horned moon rides the sky.

Four blazing fires mark the corners of a square, and inside the square is a pyramid of ox heads. Eight heads impaled on shoulder-high stakes make the base; four heads on higher stakes make the second tier. These are all heads of cows. A huge bull-head, set on the central and highest stake, is the majestic apex.

As the flames writhe, the glassy eyes flicker with fiery life, the great horns flash in and out of the fire-gilt, the matted brown hair glows and fades, and the strings of clotted gore hanging from the severed necks gleam black in the firelight.

A score of paces from the inner fires, four corner-fires mark out a larger square. Between two of these fires the hunters, men and women, are assembled. They wear pairs of polished ox-horns lashed to hide-strap headpieces, tied under the chin with hide strings. From the waist, lashed oxen-tails hang down behind.

In front of the inner fire on the left, the music-makers stand silhouetted. The women with nursing children stand or sit outside the outer squares, and the children who have not reached the age of the change of teeth are with them.

These play about the outer fires and chew at strips of partly roasted meat. Their grease-daubed mouths and cheeks reflect the firelight. The older children tend the fires, and keep them blazing.

The drums begin to mutter faintly; the Headman, stretching out his hands towards the pyramid, and bowing his horned head, begins a recitative:

Hail O Torro, hail,
Thy strength is mighty.
The Gods love thee,
Thou cud-chewer.

As he chants, the hunters echo him, repeating each phrase many times.

Hail O Torro, hail,
Thy juice doth kill
The green life.
Hail O Torro, hail,
In thy belly's fire,
The Gods live,
And Earth is warm.

Gradually the harps, gongs, clappers and whistles begin to embroider the murmur of the drums. Now, lightly dancing, with nodding horns and swishing tails, the dancers begin to radiate in lines towards the pyramid. As they dance, alternately grouping and raying out in straight lines, the musical and muscular rhythms blend together, and in this single vibration, consciousness fades and they begin to dream.

The pyramid of heads lives, and living, casts over them the power of Torro.

Then from the dancers bursts forth a wordless chant, strong and pure.

Torro's splendour, received by the spiritual eye, is reflected in the trinity of music, song and dance.

The music-makers move slowly to the next corner-fire, and the dancers move round between the fires to face another side of the pyramid.

The music rhythm changes and becomes a smooth-flowing waterfall of sound ; the chant becomes part of the rushing stream. The dancers are a pool of water, each dancer a circulating drop.

And the dreaming consciousness pictures the cosmic power reflecting itself in the belly and bowels, in the gastric juices, of Torro ; and expressing itself in the tremendous transmutation of earthly substance.

Beyond the outer fires, the women and children, following the dancers, move round the outside of the square. The fires have white-glowing hearts fringed with wisps of pale flame. The firelight flicks the gory pyramid in and out of sight, and ripples over the dancers, who have become a single living creature alive in pulsations of form and sound, and dappled with light.

The whole valley is walled in blackness, and overhead hangs the powdered velvet of the night.

Now the dancers are in line like a seven-jointed backbone, the parts folding and unfolding with rhythmic slowness, as the whole zig-zags backwards and forwards between pyramid and outer fires.

The slow heavy rhythm of the music presses heavily on the dancers. Backs are bent, arms and legs move slowly, and horned heads thrust, as the dancers resist the earthward pull. The slow vowel-sounds of the chant bloom and fade in unison with the undulations of musical sound and bodily movements.

Now the emptied consciousness is filled with dream pictures reflecting Earth's might, as ten-thousand headed Torro lies prone and chews the cud while Earth draws in the transmuted power of the cosmos.

Slowly the music dies away, and the dancers remain motionless for a few moments as normal consciousness flows back again. Then the music-makers start a marching rhythm and begin to march towards the caves. The women wake the younger children, and women and children stream towards the dancers, and all fall in behind the music-makers.

Below the caves, fires have been kindled, and great lumps of meat are roasting on spits. The hunters sit round the fires, the feast begins, and the air is filled with the sound of voices.

Children are cracking roasted marrow bones between stones, and eager fingers scoop out the hot marrow.

A large clay pot stands upright, its pointed bottom buried in a heap of hot ashes. The pot is filled with a mass of herbs and meat, and is kept boiling by dropping in red-hot pebbles from one of the fires. One of the women fills a baked clay bowl and carries it to the tent of the priest.

After the Headman has eaten, he seeks the priest and stands before him. With a motion of his hand, the priest invites him to sit on a pile of skins.

They talk over the priest's journey on the morrow to the Circle at Leke—the guides and bearers required, and of how the hunter with the broken legs is to go with them, borne in a litter.

Then the priest, remembering the hunters killed by Torro, asks, "O Chief, the customs of your people are strange to me. What is done with the husks of those whose spirits have departed ?"

"O Master," the Headman replies, "Lest the Gods be angry, we have poured water over the two whose flesh is empty, and have put new cloaks upon them. Before the departing spirit made them stiff, we bound them so that they lie as they lay in their mother's wombs. So shall they be laid to Earth on the third day, when their spirits have withdrawn ; and many stones shall be heaped upon them, for the beasts must not tear what Earth receives."

The priest says, "As the sun draws mist from the pool, the spirit draws substance from earth, and makes the form of man a picture of itself. Therefore are the dead forms holy, and your customs pleasing to the Gods."

After a moment's silence, he rises to his feet. The Headman, keeping his face towards the priest, steps backwards into the night.

The camp is silent, the fires glow redly, and faintly the falling ash sighs.

Book Review

THE PLANT BETWEEN SUN AND EARTH. By George Adams and Olive Whicher.

Preface by Ehrenfried Pfeiffer. With 24 colour plates and 40 illustrations in black and white. (Goethean Science Foundation, Clent, Stourbridge, Worcs. Two guineas).

Conventional beliefs die hard, and those we received regarding mathematics during our childhood education not least so. So deeply have we become imbued with the idea that mathematics is exclusively concerned with number and size that other conceptions in this sphere are hard to attain. Only recently I saw a statement in print, addressed to children, to the effect that Euclid "invented" his geometry to enable the Egyptian peasants accurately to remeasure their fields after each year's inundation by the Nile—this regardless of the facts that Euclid's work consisted of thirteen large and abstruse books which were certainly incomprehensible to the Egyptian peasants, and that he achieved his fame not as a discoverer but as a systematizer of the work of other and earlier thinkers, many of whom had almost certainly never heard of the problems of Nile-side agriculture.

This over-simplification is typical of the kind that is still taught to growing minds to-day, and leads to a peculiarly barren sort of thinking. The origins of mathematics are of course lost in the mists of pre-history; no doubt utilitarian needs played their due part in the early development of the subject, but it can come as something of a revelation to learn how fundamentally, and how early, quite other considerations were playing a leading role.

In the work of perhaps the earliest of the great mathematical schools known to us, that of Pythagoras in the sixth century B.C., arithmetic and geometry were already subjects of the highest cultural significance, quite apart from their practical use. Through the study of number and form the Pythagorean felt that he had access to a wonderful world of archetypes from which was shadowed forth all manifest nature. Whether he contemplated the secrets of the circling worlds and the music of the spheres, or the wonder of the elemental qualities of the surrounding earth, number was the essence of all things.

It is remarkable to observe how many of the great mathematical discoveries of all time were made, out of a realm of pure thinking, long before any practical use was found for them. They were

developed, and treasured, one might say, for their mathematically aesthetic qualities; only later generations showed the fully potent use to which they could be put by practical science.

This science of number and size has increasingly shown its power over the world of dead, inert substance, but the biological and living sciences have found much scantier use for it. One reason, perhaps, why they have not kept pace with the sensational recent advances of the physical sciences is that they have not been equipped with the kind of mathematics they need.

During the past few centuries, however, there has been growing a new branch of mathematics in which purely metrical relationships have come to mean less and less. One might well ask oneself whether such a thing does not involve a contradiction in terms. A mathematics without number and a geometry without size?—why, the very name of the latter means "measuring the earth". Is it conceivable that the mathematician should step out of the very realm that he has chosen for his studies? And if he did, would he not lose himself in a hopeless void?

Yet the improbable has happened. The mathematician has stepped out beyond the sphere of number and size, and there he finds himself confronted with the essential *qualities* of the things, of which he had before seen only the quantitative manifestations Truly, in this branch of its growth mathematics has had to lose its soul in order to find it again, and this has come to something of fruition in modern projective geometry, which sees through the husks of size and shape to the essential qualitative core of space itself.

Even to-day, projective geometry has found little application to practical life, and it is therefore known and valued only by the few, but experience has shown in recent years that the mobile and plastic forms of this new geometry, freed as they are from rigid Euclidean limitations, can be a source of joy and interest even to those who are not mathematically minded. It was Rudolf Steiner who first suggested that this geometry would eventually be found to supply a key to the forms of living nature, as the older branches of mathematics had done for the inanimate world. "The Plant Between Sun and Earth" describes some of the original research that has been done along these lines.

It is a difficult book to classify. Usually a book about mathematics is described as being either for the non-mathematical reader, or for the serious student of that subject—one or the other; but to be able to say that a book is fit for both is rare indeed. But that is just what I would say of this book. The mathematician may find little that is new regarding the technicalities of his own subject,

but his attention will be drawn to the phenomena of living nature in such a way that he will see there, being worked out in living forms, the very truths which until now he has apprehended only through mathematical intuition. The non-mathematical reader will be led, by a comprehensible text and by many excellent diagrams and drawings, to some appreciation of a world of archetypes which undoubtedly works within the world of nature. That this leads in every case to an enhancement of ones understanding and appreciation of this world, there can be no doubt.

The ways of life, as it expresses itself in myriad forms, are infinitely subtle, and if the thought-forms of this book are subtle too, and strange and unfamiliar withal, they are deserving none the less of persevering study. Vividly, through word and illustration, the development of the living plant is pictured. The growing shoot unfolds with a characteristic gesture ; a multitude of tiny budding leaves, folded one within the other, cup themselves as though to protect the growing tip in the centre. Always there is this gesture of shielding and enfolding, as though the plant were saying, "See the treasure which I enshrine within the sheltering leaves of my bud." And the reality concerning this treasure is as revealing as it is surprising, for, physically speaking, just in this centre there is nothing at all. The plant holds forth its treasure and it is a hollow space.

It is at this very point that every living thing cheats a physical science trained through the centuries to think substantially and mechanistically. What is needed here is not a substantial science but a spatial one, and the beginnings of this are only now being forged. An application of the knowledge of the inner qualities of space, which are available to modern man through projective geometry, leads to an insight into the inner being of the plant.

The book itself is divided into three main parts. The first is a descriptive section dealing with the diagrams and drawings, a setting forth as it were of the phenomena, both spatial and sensible, with which the second part, on the theory of this conception of space, deals. The text is clear and logical, and it is a delight to be led to such exalted conceptions (one can use no other adjective) without at any time falling into sentimentality or ambiguity. The style is compact, and at many points much needs to be read between the lines. Nevertheless there is enough here to lead the non-mathematical reader to a first feeling for a whole new conception of space and the living world ; that a clear understanding of many of the points made would necessitate considerable further study must go almost without saying. The third section, of Notes and References, is addressed more to the reader with some mathematical training, and is rich both in suggestion and in explanation.

Those who wish to study the subject further can be referred to the authors' earlier book, *The Living Plant and the Science of Physical and Ethereal Spaces*, in which somewhat the same ground is covered but with certain aspects treated rather more fully. That book, however, was unillustrated, and is therefore best read in conjunction with the present volume.

The twenty-four coloured illustrations, in a folder inside the back cover, are of outstanding workmanship and beauty and are excellently reproduced. One has been warned so often (and so rightly !) against relying on geometrical truths read from a diagram ; but the diagram has here taken on a new role, not that of a mere prop for the understanding, but that of a positive stimulus to the imagination. These drawings are admirably suited to this purpose, and are perhaps unique among anything that has yet been published.

I find this an exciting book. As one studies it, possibility upon possibility for further research and investigation comes crowding in upon one. To take only one instance among many : the authors describe the reciprocal movement of planar and pointwise spheres, deriving therefrom the very significant "Cassini space" which is described and pictured so vividly with regard to plant life ; but at least three other types of spatial form are directly derivable from this same relationship, among which is the singularly beautiful family of surfaces enveloped by the tangent cones to the planar spheres at their circles of contact with the pointwise spheres. These also must surely play their part in the subtle processes described, and one looks forward with keen interest to their inclusion in this world picture.

But almost at every page such possibilities spring to the mind. There is virgin soil here—yes, it is an exciting book. Also it is a tentative book. One stands at the threshold of new worlds ; one can see as yet only a little way. The consequences of this theory are as wide as space itself ; one's whole conception of the world is at stake. I do not think I am wronging the authors when I say that the essential value of this book lies even more in the possibilities it suggests than in the concrete statements it makes. The tender buds of a new knowledge are here, and the treasure they hold, and guard, is not the substance of ascertained fact, but the living possibility of further growth.

Lawrence Edwards.

PRINTED BY MANDLEY & UNETT, LTD, NEWCASTLE, STAFFS., ENGLAND.