



O my Divinity! thou dost blend with the earth and fashion for thyself Temples of mighty power.
 O my Divinity! thou livest in the heart-life of all things and dost radiate a Golden Light that shineth
 for ever and doth illumine even the darkest corners of the earth.

O my Divinity! blend thou with me that from the corruptible I may become Incorruptible; that from
 imperfection I may become Perfection; that from darkness I may go forth in Light. — *Katherine Tingley*

THE THEOSOPHICAL PATH

G. DE PURUCKER, EDITOR

Vol. XLIII, No. 3

JANUARY, 1934

THEOSOPHY, THE MOTHER OF RELIGIONS,
 PHILOSOPHIES, AND SCIENCES

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BIRTH — AND BEFORE BIRTH

FRRIENDS: Friends in this our Temple of Peace and those of you who are 'listening-in' at a distance: On last Sunday and on the two Sundays before, I talked to you on the subject of 'Are Life and Death the Same — or Different?' I tried to show that from the Theosophical standpoint this antinomy, this supposed opposition of thought, does not exist in reality: that 'life' and 'death,' as properly considered, are two processes of an actor on the stage of being, two periods in the pathway of evolution; and that the proper logical opposite to death is not life but birth.

[Stenographic report of the thirty-ninth of a series of lectures on the above subject. These were delivered at the request of Katherine Tingley (the then Theosophical Leader and Teacher) in the Temple of Peace, International Theosophical Headquarters, Point Loma, California, at the regular Sunday afternoon services. Others will be printed in THE THEOSOPHICAL PATH in due course. The following lecture was delivered on November 11, 1928, and broadcast, by remote control, over Station KFSD San Diego — 600-499.7.]

We enter what we call life by the portal of birth; we play here on the stage of physical existence our parts as actors in the drama; and then we leave the stage of earth-life by the other portal, which men call death. We showed that 'life' is a building-up process, obviously; and that 'death' is the opposite of it — a process of decomposition, as the other was of composition — but that before birth there was something which entered into this earth-existence, and that same something, after this earth-existence was finished, passed out through the portal of death into another existence. We tried to show that what we call life on earth is but one act in the drama of existence — strangely enough, a drama which has no ending and no beginning. It stretches backward into the eternities of the past, and will stretch forward into the eternities of the future. Each of us is an actor in this wonderful drama of life — for that is what it is.

Birth and death are but two aspects of what is truly called 'life' — the thing behind, aggregatively the cosmic powers (in the plural, if you please) directing all smaller entities, of which human beings are some. Not only they, but the worlds that run their courses over our heads, are entities with their own karmic past, as we Theosophists say, *i. e.*, their own destiny of the past making their present existence, each one likewise having its own destiny of the future, the fruit of its past *plus* its present existence.

Thus, then, there is a continual stream of existence for each entity. Man, for instance, appears here on the stage of earth-existence a self-conscious, thinking being, carving out his own destiny, subject to all the cosmic powers and energies and forces that impinge upon him. And this impinging affects him, and therefore his actions, with tremendous force, practically controlling all the so-called automatic and un-self-conscious thoughts, emotions, and actions of himself and his physical vehicle. Yet through the magic power of his own free will — a spiritual, indeed quasi-divine faculty — he carves his pathway of destiny as he will or as he nill.

A Theosophist does not deny free will at all. No indeed; and the reason is obvious: Man in his present stage is yet an imperfect creature, because he is an evolving entity, and anything which is evolving cannot *de facto* be a perfected thing. But while this is so in his present stage of existence, the root of him, his utmost essence, his Essential Self, is a god-spark, a spark of the 'highest of the highest,' of the Boundless All.

Therefore he has everything in him that the Boundless All has, manifest or unmanifest, developed or undeveloped: if undeveloped, to be developed in the uncountable aeons of future duration.

Free will is one of the constitutional factors that man possesses — a godlike quality, a divine attribute. Yes, though the entire forces of the cosmos impinge upon man on all sides, continuously and without an instant's cessation, as completely during earth-life as in the ante-natal and post-mortem periods, he nevertheless has his free will with which he may carve his destiny as he will, for good or for evil for himself and his fellows.

We do not deny that there are mechanisms in the Universe, and that the Universe in its outer form as we understand it — that cross-section of the Cosmos which we call our physical sphere or the wide dimensions of our physical universe — is mechanical in its physical operation. To be sure it is; so indeed is our body. Everything moves according to mechanical laws in the worlds that we at present cognise; but just therein lies the solution of the riddle of life. It moves; and it moves by reason of the indwelling intelligence and will which make it what it is. Behind the mechanism there are mechanics; behind the machines there are movers. No, we Theosophists do not deny free will. On the contrary we emphasize it, emphasize it very strongly; for it is a godlike attribute, and man in his essential being is a divine entity, a god. During other lectures which I have given here I tried to show to you what the post-mortem state of the human entity is; and I am sorry that I cannot go over all that ground again. But I will briefly recall to your remembrance, or recapitulate, or point out the following facts: Man is a composite entity, and therefore a compound. He is composed of a bundle or sheaf of energies or forces, which is equivalent to saying of substances or matters — for even modern science has taught us (and this is an old Theosophical teaching) that energy and matter are fundamentally one thing. Or, as we Theosophists say, spirit and substance are fundamentally one thing — two ways of expressing two different moving impetuses: two different ways of pointing out, two different methods of the expression of, the Reality behind both spirit and matter — the Kosmic Life.

When a human being 'dies,' as we say: that is, when his constitution breaks up into its component parts, this sheaf or bundle of forces is dissolved as a sheaf or bundle of forces, and each one of these elements, these energetic elements, follows its own pathway — after what manner?

It also — each such energetic element — is a composite thing, builded up of what we Theosophists call *life-atoms*, which are the vivifying factors behind and within the physical atoms of chemistry, the atoms of our material world. At such dissolution of man's constitution, these life-atoms pursue each one its own individual course. But let me say before passing on, that each such life-atom is a growing entity, an evolving entity, a learning thing, on its pathway upwards, even as man is, even as the gods who fill the Universe are in their spheres. So much for the lower parts of man's constitution, which parts are mere aggregates of such life-atoms.

But the higher intermediate part of man's constitution, after the lower elements of his constitution fall asunder after death, is what we Theosophists call the *Reincarnating Ego*. This is the Radiance from the *highest* part of himself, a ray of his Essential Self, which we call the Monad. Now, this Reincarnating Ego itself, which, after all, so far as the individual human being is concerned, is the most important element of his constitution for him (it is not the most spiritual, not the most evolved, but it is the essential human being; therefore, since we are human beings, for us it is the most important individual part of man's constitution) — as it divests itself of the lower elements of the above-mentioned sheaf or bundle of forces, which lower elements make what we call man's mental and emotional nature, his astral nature, his vital-astral nature, and his physical body: after it has divested itself of these lower things, it finally rejoins its "Father in Heaven," as Jesus in the New Testament is stated to have put the matter. In other words, it then rejoins its spiritual parent, the Monad, its inner spiritual sun, which is a quasi-divine entity also evolving on its own planes, and in its own spheres, even as its Radiance or Ray, the Reincarnating Ego, is evolving on inferior planes and in inferior spheres.

Now, I do not use this word *Radiance*, in expressing what I mean when I say the Reincarnating Ego, to imply something superior to the Monad. It is rather an expression which I use because I am trying to find a fit word, a word which is appropriate and therefore expressive of the part of man which has the fire of spirit in it, and yet is not spirit itself. This Radiance is like a ray from the sun: a sun-ray is not the sun, yet it is solar. But this Radiance, while in its essence it is a spirit-thing, a spiritual force or energy, is humanized by the great store-house of experience that it has passed through in other lives on this earth, and in

other worlds and on other planes. It is not pure spirit because it has been entangled, so to say, in the human elements of man's constitution, and therefore may be looked upon as more or less humanized.

You see, therefore, what I mean by this word *humanized*: the Radiance or Ray has contacted lower matter than itself. But by so doing it has raised this lower matter; the life-atoms of which this lower matter is composed are stimulated into higher forms of activity by this contact with the controlling spirit within: somewhat as a beast, a dog, a monkey, or a cat, for instance, brought into a human home, has its evolution hurried or accelerated by the nearness and affection and tender care of its master; although I am compelled to say in passing that this may not by any means be a good thing for the beast in question, paradoxical as it may sound. But this is a point which I cannot further develop at the present time.

Now, as this Radiance, this Reincarnating Ego, ascends towards its 'Father in Heaven,' its Monad, it passes through different planes or spheres of being of the invisible and interior worlds; and in each one of these planes or worlds or spheres, as it ascends towards the Monad, towards its junction with the Monad, it sheds the life-atoms which are appropriate to that world, which belong to that world, but which are of too substantial a character to be gathered as yet, as it were, into the bosom of this Radiance for an ascent to still higher spheres.

This proceeds, as post-mortem time passes, until all that is beneath the spirituality of this Radiance is left behind, and then the Reincarnating Ego, now become a quasi-spiritual entity or thing, is fit to rejoin its 'Father in Heaven,' the Monad, man's inner god. In the 'bosom of its Father,' so to say — in other words, in the enclosing spiritual atmosphere of this Monad — it rests in ineffable peace and bliss for a long term of years, depending upon what we call its *karman*, that is to say, the consequences or fruits of its last life on earth. If that life was filled with good deeds and noble thoughts and high actions and aspiring motives for true and godlike things, then its rest, its stay, with the Monad is a very long one: thousands of years may pass while it so remains. This condition of it is what we Theosophists call the *Devachan*, the *god-world*, or *condition* of quasi-divine felicity.

But sooner or later the energies which hold the Reincarnating Ego in the atmosphere of the Monad have run their course; and then the reflex action of these energies begins — the reverse action, as it were,

of the same energies; and instinctively, magnetically, by attraction due to this reverse action, the energies imbodyed in this Radiance begin to have their effect, which means that the Radiance then begins to leave the 'bosom of the Monad.'

This is another way of saying that the Reincarnating Ego or Monadic Radiance or Ray now begins to feel an attraction earthwards; old memories slowly come back into its consciousness of the things that it has been through, of the ideals that it has had, of the loves that it has known, of the aspirations that it has followed, of the things done and left undone, of the past life and of other lives. All these, working with increasing power in its consciousness, draw it again into realms of lower matters and therefore of imbodiment.

This is nothing unique or even strange. Examine yourselves even in your present life. You will find the same psychological mystery operative today in every one of us. We are all attracted to the things we love, and frequently unknown to ourselves we follow pathways along which we are drawn — alas, sometimes by mere will-o'-the-wisps of the imagination, but at other times by noble and high ideals and aspirations, and by thoughts and longings of the finest kind. The same law, the same principle, prevails when the Reincarnating Ego begins to descend into the planes and worlds of inferior matter.

What then happens? The Reincarnating Ego can go only where its attractions draw it, and its attractions draw it always to those planes and spheres where its former imbodiments have been — in other words, where it left the various grades of life-atoms when, after its former death, it ascended to rejoin its Monad. And entering these different spheres or worlds or planes again, from above, it passes down through them on the descending arc, picking up in each one of these planes or worlds the life-atoms that it shed there when ascending out of them; and so this procedure continues until the lowest or most material realm of our earth is reached.

What does all this procedure mean, in other words? It means that the Reincarnating Ego picks up and reincorporates into its constitution in each one of these spheres, and on each one of these planes, and in each one of these worlds that it redescends through, the very same life-atoms which made it what it was before it ascended out of those various planes. It rebecomes itself again as a constitutional entity. Not one of these intermediate planes or worlds can be omitted or passed over: the pro-

cedure of descent of the Reincarnating Ego continues down to the lowest part of our physical plane.

So, therefore, when the Reincarnating Ego is physically born again as a little child on earth, and grows to maturity in its new physical body, it becomes exactly the same man it was before in all essential elements and in all essential respects, because the life-atoms have rebuilt themselves again into the identic vehicles it had formerly shed on its previous post-mortem journey. See the justice of this procedure. The same man in the same world, facing problems formerly left unsolved and beginning successes formerly left incomplete.

But is there no improvement? Why, of course there is improvement. All being is in evolution; every movement is towards betterment, even though our lives are like a spiral, sometimes running up and sometimes running down: or even as a pilgrim will cross a mountain and then have to descend into a valley again in order to ascend a mountain still higher, whence he may obtain still more splendid visions of the path ahead. Yes, the man is improved. He is bettered. His very post-mortem stay in the Devachan or God-world, 'in the bosom of the Monad,' has wrought the fiber, the metal of himself (if I may use a physical term), into a nobler metal. It has been refined and purified. But it is the same consciousness, the same vehicles reincorporated anew. I hope that this brief outline of the ante-natal descent of the Monadic Ray is sufficiently clear for an understanding of at least the elements of the process.

Bearing another name? Of course. My name in this life, let me say, is John Brown; and I go through this mystical, marvelous pilgrimage of the ego after death and then return to earth-life. Am I again the same John Brown? What is John Brown? John Brown is a name. I might now be called William Smith. A name is a name and nothing more. I may be born in another part of the earth a thousand or two thousand or five thousand or perhaps ten thousand years from now, among a people whom I in this present life would call an alien race. But what matters that? All the essentials of me and of my body are exactly the same as before. I am the same man. I bear a new name, I speak another language perhaps, live on another part of the earth's surface, live in a different age, see different surroundings — or perhaps I may even see the same physical surroundings in the shape of sea and mountain, valley and plain; but I am the same man.

And very likely, in all probability, if we are now considering the

average man, he will meet again in the new life other average men who were his friends in the last. How otherwise account for those strange attractions that we feel for some people? Yes, alas, and for the strange antipathies that we feel for others? O Friends, only thus can justice be wrought. We wreak evil upon others; but in the balance of the justice of the cosmic scales we come back again, and take up anew the old intercourse with those we knew before; we act upon them and they act upon us, all according to what we call 'karmic justice,' the Doctrine of Consequences; and as men we take what is coming to us. We clean the page of the bygone fault and start anew with a fresh clean page. This is the working of Karman, and it is justice. It is a manly belief, and also it is a belief of hope and consolation; because, on the other hand, where we have sown good, where we have nobly wrought, where we have done right, good now is done to us, and now others bring to us not merely success and prosperity, but peace and happiness as well.

You talk about the broken hearts of those you leave behind at death? But think a moment. Do we meet them ne'er again? Indeed we do. Love is a mighty magnet — if it be really love. And hate, strangely enough, is a mighty magnet also, if it be hate. I tell you, Beware of what you do, and of the seeds of thought and act that you sow in the fields of life, for you will reap to the last grain, to the last impulse, whatever you have sown at any time.

Now, as the Reincarnating Ego, the Radiance, passes down through the spheres, please do not imagine for a moment that the Monad itself passes down with it. That would be an absurdity — as absurd as to say that the sun follows each one of its incomprehensible multitude of solar rays into outer space. The idea is an absurdity because an impossibility. The Monad is a quasi-god, a high spiritual entity, a quasi-divine being, which leaves its own plane for these nether realms never. It has been through them all in far past aeons of cosmic time, and therefore it knows them all through and through. These realms of matter therefore can teach it nothing. Nature would have no purpose in a Monad descending again. You might as well say that a man should become a little child again in the same life, go over the lessons that it has already fully learned, or act again all its infantile motions and movements. Such an idea is an absurdity. However, it is true that the Reincarnating Ego, the essential man, does incarnate its rays in a little child in another life, in order to learn other and new lessons of that other life in other sur-

roundings and in other ages and often under very different conditions.

Thus, then, you see the many-sided views that this teaching has to show us, referring to different problems of life, to many things that require explanation, and that have not been explained in Occidental civilizations because these two wonderful Theosophical doctrines of Karman and Reincarnation have been lost out of Occidental religion — although both belonged to it in that religion's earliest period.

Now, then, what takes place in the time immediately or shortly preceding human birth? There is a difficulty that a speaker labors under in touching upon matters of this kind. We all have a sense of the fitness of things, which sense or instinct is easily violated; and of course you understand that, as I said on last Sunday, I am not speaking in a medical lecture-hall; so I shall refer to certain subjects in a rather round-about way, but I am sure that you will understand just what I mean.

Birth is a mystery; but it is a mystery which can be solved and indeed has been solved; and it is only a mystery, in the sense of an unsolved thing, to those who have lost these wonderful Theosophical keys of existence, telling us how to open certain doors of knowledge. They can be opened and have been opened.

As the Reincarnating Ego, or rather its energetic influence, reaches the plane of physical matter — and I use these words in order to avoid misunderstanding — how does this entity which is by nature far above physical matter, entangle itself in physical substance, so that its link with the vital human unit, the human reproductive cell, may be made? As I have just said to you, the Monad does not descend into gross matter. There is a distinct difficulty in any attempt to express these highly mystical processes in ordinary human language.

But we have certain mechanical contrivances today, which may suggest to you some idea or adumbration or intuition of the process: I refer to the electro-magnetic transmission of power by wireless, or to the electro-magnetic radio-apparatus. Physicists have now discovered a method, I believe, of controlling mechanical appliances, machines, at a distance by what we may call radio-transmission of power. I have read, if I remember aright, a case of an airplane sent aloft into the air, directed in its flight, and finally brought to earth at a distant and intended spot by means of such transmitted power; and I have also read of a vessel being directed and controlled after the same manner. No human hand was at the controlling wheel in either instance; and yet plane and

ship were sent forth in their movements, and brought to the spot intended, by transmission of power through the ether. Here we have the passage, through intervening physical matter, of power directed by intelligence and will along lines of electro-magnetic energy, and this may suggest to you somewhat of the process, which is more or less automatic also, by which the Monadical Radiance or the Reincarnating Ego can control from its own ethereal sphere the influences or powers or rays which it propels into spheres of matter inferior to, or grosser than, its own.

When the Reincarnating Ego, the Radiance, after leaving the bosom of the Monad, reaches its own intermediate sphere — which is the plane and sphere of the human soul — it itself descends no farther into matter than that plane. But its influences, its electro-magnetic rays, as it were, go still farther down into matter, awakening into activity the life-atoms in each one of the various planes between this human or intellectual plane — the mental, emotional, psychical plane of the human soul — and the grossest matter on our physical earth.

When such a vital electric ray, a vital magnetic ray — (call it by any name you like; we have to find names for these things in our Western lands, for these thoughts are unknown to Occidentals, and we try to give you ideas, Friends, and are not quibbling over mere names or terms; therefore please get the idea; perhaps you may find a better terminology in which to express the idea than what occurs to me at this moment of speaking) — when this ray, this electro-magnetic penetrating point of energy or force, finally touches and awakens to kinetic life some particular life-atom in the grossest part of physical matter on this earth: that one particular life-atom which formerly belonged to the man that was, and which is the most immediately responsive to this penetrating electro-magnetic ray, or ray of vital electricity, or ray of the Radiance — then this particular life-atom is immediately stimulated by the contact of this vital electricity descending from above, because this life-atom is attracted to its own parent. For this life-atom was one of the uncountable host of life-atoms that made the physical body of the man that was, in his last physical incarnation. As the iron filing jumps to the magnet, so does the life-atom quiver and spring into action at this contact: as it were it becomes biologically vitalized, a living unit, and then it begins to grow and to express forth the individuality latent in the Radiance or Reincarnating Ego, which individuality or characteristic descends along the channel of the ray of vital electricity.

On last Sunday I pointed out that the lowest, most material part of our earth is what science aggregatively calls the atoms and the intra-atomic ether. These atoms and this intra-atomic ether are even below the physical world that our senses know. We human beings of physical flesh are a stage or more higher along the pathway of existence than the chemical elements are, although our flesh is builded of these same chemical elements, for they have been ingathered and wrought into our marvelous garments of flesh. When this life-atom above spoken of, which is in the atomic world, feels the vital impact of this Ray from the Reincarnating Ego, and therefore leaps as it were into the beginning of its pathway of growth, as I said, it is magnetically attracted to that individual which is most akin, physically speaking, to its own rate of vibrational energy. I am making use of terms of popular science now, so that you will more easily understand me.

Who is this human being in any such case? It is a man, some man; and this life-atom is taken into the auric or vital electric atmosphere of this man; for every human being is surrounded by his own vital atmosphere. In these modern days this human atmosphere is popularly called an *aura*. We have no objection to that word at all; it is in itself a good word; but it has been so misused and so misapplied by people who call themselves 'psychics' and what not, 'clairvoyants' and what not, and who never have been taught or never have made an honest-to-goodness study of these subjects, that, although this term was actually brought into use by us, in the modern world — by our own Theosophical thinkers and speakers — we have been compelled almost to abandon it or indeed, if we use it, to use it under protest and with an explanation. Every human being is surrounded by a magneto-electric atmosphere, a true *aura*, stamped with his own characteristics of individuality, the characteristics of himself. It is, so to say, an effluvium or cloud surrounding his physical personality, and actually is an emanation from the energy-substance of his invisible, etheric model-body. We cannot see this *aura* with our physical eyes; but so far as that argument goes, we cannot even see the air we breathe, the atmosphere surrounding the earth — a very dense and coarse and heavy gas or rather mixture of gases, so gross, indeed, that to a being only a little more ethereal than we are, could he see our ordinary atmosphere surrounding our earth, it would appear to him probably to be as dense and heavy and thick as viscid glue.

So, this life-atom finds its pathway into a human being of the male

sex; and the usual path of such entrance is in the food which is eaten, for such food, as everyone knows, is composed of chemical elements, which is but another way of saying, of atoms; and physical atoms, as I have already pointed out, are but the physical manifestation of the invigorating and vitalizing life-atoms behind and within the atoms of physical chemistry.

The activity of this invigorating life-atom just preceding — or for a certain small period of time preceding — what is called the conception of a human being, is so important that I ask you to bear with me for a few moments while I gather together previous threads of thought and weave for you a web of more closely knit sense. The ancient Egyptians, as Herodotus tells us in his second book, section 123, had the teaching that a portion of the human entity after death passed through the spheres or worlds of air, water, and earth, a procession of events which occupied, so they told Herodotus, some three thousand years more or less.

Now our Theosophical teachings explain this to mean that the reference here is not to the human soul, but to the post-mortem destiny of the life-atoms themselves, and such indeed is likewise our Theosophical teaching. The vital electricity from the Reincarnating Ego, which stimulates and invigorates the particular life-atom in the body of some man, is attracted to that man, as said above, by a similarity both of quantity and quality of atomic vibrational frequency, in other words, and in more popular language, by a similarity of vibrations. The cause of this is that this man was in the past life, or in some former life, intimately connected or associated with the Reincarnating Ego, now re-entering earth-life.

If we call this 'love' we shall state the truth correctly, after a fashion. Friendship might be a better term, but at any rate, the attraction exists from preceding causes which lay in the close association of the two entities, each to each, as brothers, or as parent and son, or daughter, or as friends, or even possibly as husband and wife.

This particular life-atom, thus invigorated as I have said, is now already in the body of the man. Next, our Theosophical philosophy divides life-atoms into two classes, signifying not a difference in kind but a difference of condition, to wit: life-atoms which are latent or dormant, and life-atoms which are kinetic or active. No one life-atom is eternally either in the one or the other condition; but as all things in

Nature have periods of activity and then periods of repose, so does a life-atom have periods of kinetic movement or activity, and periods of dormancy or repose. The human reproductive germ, as found in man, consists of both kinds of life-atoms, but the kinetic are in this case the dominant. The human reproductive cells as found in woman consist of both types, but in this case the dominant are the dormant or latent life-atoms, and the kinetic are recessive, the opposite of what occurs in the male sex.

So then, given this similarity of vibrational frequency between the male parent and the child to be and the vital electricity of the ray from the Reincarnating Ego, we see that the latter, attracted by the aura or vital-magnetic atmosphere of the man, enters into it, and automatically, so to say, or at any rate, magnetically, seeks out, or finds, or is attracted to, or is drawn to, the particular life-atom in the specific organ of the living man which most nearly answers to the vibrational rate of the entering vital-electric current or ray.

If the man be celibate, the reproductive germ or stimulated life-atom is unable to pursue its natural course of union, such as our physiological books tell us of. If, on the other hand, such union with the female reproductive cell be accomplished, the first steps of the growth of the child to be take place, and in due time, barring accidents, birth ensues.

I have said that the life-atoms which are cast off post-mortem by the ascending Monadic Ray, pursue each one its own metempsychosal journey through the various kingdoms of Nature, and so continue through the centuries until each and all such peregrinating life-atoms are swept together again into the constitution of the Reincarnating Ego formed in the manner I have outlined above. These peregrinations of the life-atoms were what the Egyptians meant in the reference from Herodotus that I have given above, and such peregrinations being through all the kingdoms of Nature, it is obvious why any such life-atom — which means all life-atoms — may be taken into a human body in the guise or garment of food and drink. And during the processes of digestion and other physiological activities, the various molecules or atoms are sorted out and assembled, or marshaled, for a greater or less length of time to the different organs of the human body. Sometimes these atoms enter into the human aura and body by osmosis, more accurately by endosmosis: that is to say, by passing inwards through human tissue, such as the skin or the lungs.

Another point: although the reincarnating vital-electric Monadic Ray, as above described, makes its first contact with a human cell in the manner I have set forth, yet for all that, it is only when the infant thus generated first moves in the bosom of its mother that occurs what may be called the first real entrance into the unborn child of the characteristic egoity of the Reincarnating Ego. From this moment till birth, and all through life, passing through the stages of infancy, childhood, youth, middle age, and old age, the life-atoms formerly belonging to any such human being in its past life or in past lives, are swept by irresistible magnetic attraction into the constitution, physical or otherwise, of the man or woman thus passing the various ages of life.

Here then in brief outline, so brief indeed that it is but a mere skeleton-sketch, have I tried to set forth the marvelous teachings of the Theosophical philosophy with regard to the subject treated of. Much more could be said indeed, which would not be appropriate in a public lecture for two reasons: first, because we call these deeper teachings 'esoteric,' and they could not be understood without a long previous training and mental digestion of the meanings of these teachings; and the second reason is an obvious one, that it would require too intimate discussion for any other place than a medical lecture-hall or a union of men alone or of women alone, with a teacher of the same sex.

I tell you, Friends, that the mystery of birth is a very holy one. If men and women only knew the sacredness of it, for their own self-protection, outside of the sense of decency that each normal man and woman possesses at the bottom of his or her heart, I tell you that this subject would be approached with a truly religious awe; and marriage would become what Katherine Tingley has taught us it ought to be: a most beautiful because a most holy state; and the acts which lead to the birth of a little child would be undertaken as a truly religious function. Men and women would realize more fully what they then were doing.

When the human seed is cast into the human soil, into an appropriate environment, what is popularly called 'life' begins; in other words and more properly speaking, the vital functions begin which eventuate in the growth of a human being.

What is the vital cell, whether of man or of woman? In the Theosophical philosophy it is originally a part of the astral man, of what we call his etheric 'model-body': which is, if you like to use modern terminology, an electro-magnetic body, around which the physical body is

builted, cell for cell, molecule for molecule: therefore bone for bone, limb for limb, and feature for feature. Indeed, whatever you see the physical body to possess is but a mirroring of what the etheric model-body is.

As the life-atom above spoken of, which really belongs to the astral or etheric world, is invigorated by the inflowing of the Monadic Ray, as I have just set it forth, and enters by attraction into the astral or model-body of the father of the child to be, it is in time deposited into the appropriate physical receptacle of the father as an astral precipitate. It becomes physicalized. I hope that you understand just what I mean. And equivalently with the mother is this process of physicalization identically the same; each parent contains in the appropriate organ a large number of life-atoms belonging to the Reincarnating Ego of the man who used those life-atoms in a past or past lives.

Each parent is fully as important as the other. Neither alone, in our present stage of human evolution, in which sex prevails, can bring forth another human being. The two must join, according to the laws of Nature at present prevailing in this holy mystery. But when the two human cells join as a speck of living protoplasm, then we see from this microscopic vital unit, the fertilized cell, something evolving forth and expressing all the potencies and potentialities — of what? As they are in the father? No. In the mother? No, but in the Monadic Ray, which is vitalizing that growing cell: in the character of the man to be, otherwise, in the Reincarnating Ego, which is able to express itself as yet very feebly, because the cell-vehicle is still but a single vital unit, and therefore an imperfect vehicle.

But that vehicle grows and evolves, and as it becomes a fitter vehicle for the expression of the characteristic drive behind it of the Monadic Ray or Reincarnating Ego, we see what is popularly called the developing mind and character of the growing child. We thus see a microscopic human germ growing into a full-sized human being, capable of expressing all the spiritual inner glory and the intellectual power and splendor of the Monadic Ray, streaming into its proper organic receptacles along and through the electro-magnetic, etheric model-body.

There is one more point which may cause confusion unless I add a few words in order to make it more clear. It is this: the possible inquiry whether the life-atoms belonging to the man that was in his former life are numerous enough so that after an undetermined space of time, which is reckoned only by centuries and indeed by thousands of years,

the Reimbodying Ego can find, right at hand, these its own former life-atoms waiting for it. The question is a natural one, but could be asked only by an inquirer who had not studied our Theosophical philosophy. When it is remembered that even according to modern scientific estimates the number of physiological cells in the average human body is twenty-six thousand billions, in other words, twenty-six trillions; and that these cells are titanic in size as compared even with the physical atom — in other words, that each cell must contain unnumbered billions or trillions of atoms — we immediately see that the life-atoms in the average human body are so unthinkable numerous that we can only guess at the vast magnitude of their numbers. Probably they are counted in thousands of decillions; and I may go farther and say that as the entire population of the earth is less than two billions, it is likely that some of this unthinkable number of life-atoms of any one formerly living human being, are existent in the body of every man and woman on earth.

But there is another thing which must not be forgotten: that the incarnating Monadic Ray is magnetically drawn where the attraction is strongest: in other words, to those already incarnated whom it knew most intimately in its past life or lives; and these of course are relatively few. How few no one can say, but off-hand we may mention a half dozen or a dozen, even twenty, or perhaps fifty. I suppose that no man or woman in any life has more than fifty very intimate associates. The ordinary number is vastly fewer even than that — two or three perhaps.

Now, Friends, I trust that I have made this difficult subject more or less clear to you. It is a fascinating subject, if only because of the scientific and philosophic and religious aspects of it; and if I have done nothing else, perhaps I have been enabled to give you an idea that there are very beautiful things in life which our human ignorance does not see and, because it does not see them, does not understand. Life, in the ordinary sense of the existence of a human being, is full of opportunities for the expression of these powers flowing into us from each one's innate God, his Monadic Essential Self. All opportunities lie before us for development, for growth, for self-expression — and this is evolution; for we can express nothing else but what is in us. This, Friends, this growth, this opening out of what is within, this unfolding of the Flower of Eternity which man is in his highest, is what we Theosophists mean when we speak of evolution.

THE THEOSOPHICAL SOCIETY AND H. P. B.*

BY ANNIE BESANT

(From *Lucifer*, December, 1890)

[The following article expresses the views of many members of the Theosophical Society, who feel strongly that it is time that some protest should be made against the constant petty criticisms levelled at H. P. B. As co-editor, I put in the article, which has not been submitted to H. P. B., nor will she see it until the magazine is issued; so she is in no sense responsible for its appearance. — ANNIE BESANT]

ON the 17th day of last month, (November, 1890), the Theosophical Society completed the first fifteen years of its existence, and can look back over a youth tempestuous indeed, but marked by continuous growth. When first, in New York, the two "Founders" of the infant Society enrolled their earliest members, a profound sadness must have lain at the heart of the one who realized all that was meant by that primary step. "The last quarter of the century!" Not for the first time had that cry been sounded in the Western World, but all the previous attempts had but stirred the waters and had — failed. Was this nineteenth century effort to pass into Hades with its predecessors, bearing only the wreckage of shattered hopes, of broken forces? Was this dawn to darken into night instead of morning, and leave the twentieth century to grope in darkness with none to guide? Or were there, scattered through the West, enough of the students of the past to awake at the summons from the Orient, students in whose hearts the occult fire was smouldering, waiting but the "breath" to make it burst forth in flame? Only when the knell of the century has sounded will the answer to such questionings be fully heard: still is the lot hidden, save from the eyes that pierce beyond the veil. It "lies on the knees of Osiris," and it will fall thence into the lap of failure or of triumph, as *they* keep faith or break it, who form the working brotherhood of the Theosophical Society.

The seed planted in America has grown there to a tree with widely spreading branches. In India the Society quickly made its way, and thanks to the energy, the eloquence, and the devotion of Colonel H. S. Olcott, the Co-Founder and President, branches sprang up in every

*Reprinted by request. From *World Theosophy*, November, 1932.

direction, the ancient literature was enthusiastically studied, schools were founded where knowledge untainted by Christianity could be gathered by the young, and India, waking from the sleep of centuries, felt herself to be once more a nation, a nation with a mighty past, and with the possibility of a glorious future. While all this rush of new life thrilled along the veins of Hindustan, the heart of that life throbbed steadily on, the fount of the circulating energy, though the limbs and the organizing brain were more prominent in the eyes of the world. The heart was H. P. B. Indifferent to the exercise of authority, careless of external show — even to the shocking of those tight-fettered by social conventions — willing to efface herself if thereby her mission might the better prosper, there she was, the source of the occult forces which alone could sustain the Theosophical Society. Ready to prove the reality of those as yet little known powers of Nature, the effects of which are as marvelous to the cultured European as are the electrical phenomena to the Central African, she performed experiment after experiment for the instruction of those who personally sought her. But she steadily refused to vulgarize her mission by any kind of general “performance of phenomena,” which could only gratify curiosity and serve no useful purpose. When urged to “show her powers” merely to convince the general crowd, who cared nothing for Theosophical teaching but only desired to gratify their idle love of the marvelous: when told that thus she might win credence and establish her authority, she merely shrugged her shoulders, and with the indifference of the trained occultist, answered that they might believe or not as they chose; let them say she was “a fraud”; what did it matter? For the real student she had an inexhaustible patience, willingness to prove, readiness to explain; for the idle curiosity-hunter, a careless “Oh, it’s nothing! Psychological tricks, Maya, what you please.”

With many of the Brahmins she came into direct collision. Sent to teach to the world at large many of the doctrines which had been jealously preserved as the treasure of a privileged minority, she struck them on their tenderest point, their pride in the possession of knowledge hidden from the vulgar crowd, their sensitive jealousy lest their holiest should be profaned. Knowing that she was speaking truth, they often contradicted her in public, while in private they hotly protested against the desecration of their sanctuaries. Physically a subject race, conquered by the material force of the aggressive West, they retired the

more into the strongholds of their intellectual pride, looking with unutterable contempt on the foreigner who could subdue their bodies, but who, in his ignorance of the secrets of Nature, was but a barbarian in their haughty eyes. That he should rule in India was well, since India had forsaken her ancestral wisdom and was unworthy to be free; but that he should catch a glimpse of that mental and spiritual realm of which they were citizens — nay, such intrusion should be resisted to the last, and the very existence of such a realm should be kept secret, lest he should find a gate that might let him in. That this Russian teacher had her knowledge from the sages they revered, they were unable to deny; but they resisted her publication of the teachings as their ancestors had resisted the teachings of Gautama, the Buddha. Not for the “common people” were even the crumbs of the “Divine Wisdom.”

Nevertheless, despite all, her influence grew, and the Theosophical Society struck its roots far and wide. Then came the bitter and unscrupulous attack of the Christian missionaries in the famous Coulomb forgeries, forgeries some of them so transparent that they could not have deceived an intelligent child, others ingeniously concocted of the half-truths that “are ever the blackest of lies.”

And here, I venture to say, a mistake was made; a mistake in tactics as well as a failure in loyalty. An examination held promptly and on the spot proved the falsehood of the calumnious accusations, and exposed the nefarious artifices by which evidences had been fabricated. So far, so good. But then, instead of closing up round the assailed Teacher and defending to the utmost her position and her honor, the fatal policy was adopted of attempting to minimize her position in the Society, of arguing that the teaching remained impregnable whether the teacher was or was not trustworthy. It was a policy of expediency, not of principle, it being thought wise to ignore attacks rather than to refute them, and to lay stress on the inherent strength of the philosophy rather than to continually vindicate its exponent. Suffering from acute disease, and always too doubtful of her own judgment in mere exoteric matters, in questions of policy and expediency, to trust to it against the advice of men of the world, H. P. B. allowed herself to be put aside, while the Society was exalted at the expense of its Founder, and left it to go its own way in Hindustan. When sufficiently recovered from almost fatal illness, she recommenced her work, but in Europe not in India, confining her activity to the Western world.

The effects of her presence quickly became manifest. Where was the occult heart, there was centered the life of the Society, and in the West, on every side, appeared signs of new vitality. How the Theosophical Movement was spread through Western lands it needs not here to relate. The "Theosophical Activities" in every number of *Lucifer* tell the tale so that he who runs may read.

This rapid growth has been due primarily to H. P. B.'s personal presence, secondarily to the formation of the Esoteric Section of the Theosophical Society. Into this, those only are admitted who accept H. P. B. as their teacher in Occultism, recognizing her as the messenger of that Brotherhood who are the real Founders of the Theosophical Society. This Section embraces most of the most active workers in the Society, and as they base their activity on their philosophy little of it is wasted in running after false scents. There is a certain fringe of people who come and go, who enter from curiosity and are disgusted when they find only hard work; who seek for "powers" and are angry when they find only self-denial; who enter thinking Occultism an easy and exciting study, and break under the tension to which they find themselves subjected. But the center of the Section is steadily solidifying, and it encircles H. P. B. with ever-growing trust — founded on lengthening experience — with ever-increasing love, gratitude and loyalty.

Now touching the position of H. P. B. to and in the Theosophical Society, the following is a brief exposition of it, as it appears to many of us:

(1) *Either she is a messenger from the Masters, or else she is a fraud.*

From this dilemma there is no escape. If she does not come from Them, bringing Their message, doing Their work, executing Their commission, her whole life is a lie. From beginning to end, she has claimed nothing as her own, everything as from Them. Those who are in daily contact with her know how she continually refers to Their decision, speaks in Their name. No third course is open to us: there are only these alternatives, the mission is either real or fraudulent.

(2) *In either case the Theosophical Society would have had no existence without her.*

The folly of trying to separate the Theosophical Society and H. P. B. lies in this fact. Without H. P. B. no Theosophical Society. All the

Westerns who know anything of Theosophy have learned from her or from her pupils. Col. Olcott, as he always recognizes, obtained through her his introduction to the work. Save for her, he would be a well-known American Spiritualist, not the President of the Theosophical Society. So with Mr. Sinnett, so with Mr. Judge, so with each and all. Many have obtained independent evidence afterwards, but for all she has been the portal through which they have passed into the occult world. Nor is the fact that the existence of the Theosophical Society is due to her the only proof of the hopelessness of the attempt to rend the twain apart. For just as it owed to her its inception, so now it owes to her its vitality. Where she is, there, evident to all eyes, is the center of energy; and where she is not physically, there the progress is in proportion to the loyalty shown towards her. Unfair criticism of her, ungenerous carping at her, slackness in defending her against attack from outside, wherever these are found there also quickly follow stagnation, decay, death.

(3) If she is a fraud, she is a woman of wonderful ability and learning, giving all the credit of these to some persons who do not exist.

As to the ability and learning, these are not challenged by her enemies. They sometimes say that her knowledge is ill-digested, that she arranges her materials badly, that she is misty, involved, self-contradictory. But that she possesses an extraordinary fund of varied information, bearing on out-of-the-way topics and obscure philosophies, is admitted on every hand. If she be a fraud, why is she such a fool as to invent imaginary Teachers, fathering on them her knowledge, and so gaining on every side abuse and slander, while she might have gained credit, to say nothing of money, by the simple and natural course of giving out her own as her own? Can anything more insane be imagined than for a Russian woman of noble family, married to a high official, to go out into the world on a wild-goose chase after imaginary Teachers, and having acquired a mass of recondite knowledge at great cost and suffering, to throw away all the credit of acquiring it, to ascribe it to non-existent persons, to face slander, abuse, calumny, instead of utilizing it in a more common way, to remain an exile from her own country, to be poor and despised where she might be wealthy and honored? If anyone can produce, outside Bedlam, a lunatic more mad than H. P. B. must be if she be a fraud, I should be grateful for the honor of an introduction.

(4) *If H. P. B. is a true messenger, opposition to her is opposition to the Masters, she being Their only channel to the Western world.*

This proposition scarcely needs argument to sustain it: it is self-evident; she alone is in direct and constant communication with the trans-Himalayan Adepts. They chose her, and presumably They can manage Their own business. Once accept the philosophy, you must accept her; accept her and you cannot stop short of the full proposition as stated above. And here let me make a suggestion to those who rashly and superficially judge H. P. B., and complain that she is hasty, and that she "shuts up" enquirers, that she repels would-be disciples. H. P. B. varies with the people who come to her. To the person who veils mere curiosity under polite forms and false courtesy, she will be abrupt, sharp, repellent. The hostile feeling masked under smiles, finds itself pierced by keen sarcasm, or knocking itself against a wall of ice. But to the honest enquirer she is patient and gentle to a rare extent, and only her pupils know of a patience that has no limits, a strength that never falters, an insight that never errs. In fact, H. P. B. herself is the test of the members, and when they begin to grumble at her, they would do wisely to analyze themselves. I sometimes think of a test dropped into a solution, precipitating some substance therein contained. "What a horrid liquid it must be so to dirty that beautifully clear fluid!" cry the ignorant. If the substance had not been present, it would not have been precipitated by the test, and if enquirers and members are honest, they will find themselves attracted, not repelled, by H. P. B.

(5) *If there are no Masters, the Theosophical Society is an absurdity, and there is no use in keeping it up. But if there are Masters, and H. P. B. is Their messenger, and the Theosophical Society Their foundation, the Theosophical Society and H. P. B. cannot be separated before the world.*

This is the conclusion of the whole matter, the decision on which must guide our policy. I see on some sides a disposition to temporize, to whittle away the Esoteric Teachings, to hastily twist them into accord with temporary hypotheses of Science, in order to gain a momentary advantage, perchance a fuller hearing. This is not wise. Already some such hypotheses, opposed to occult teachings, have been thrown aside by more advanced scientific thought, and have been replaced by other hypotheses, more nearly approaching the occult views. There is no

need to hurry, nor to try to pour the archaic doctrines into new bottles, ere those bottles have been tested. The Secret Teachings have stood many thousands of years, and have been the source from which the stream of progress has flowed. They can venture to stand on their own basis for a few years more, till Science crosses the dividing line it is tentatively approaching with each new discovery.

To the members of the Theosophical Society, I venture to say a word of pleading. But a few years stretch before us ere the century expires, a century whose close coincides well-nigh with the close of a cycle. As the sands of those years are running through the hour-glass of Time, our opportunities are running with them; it is "a race against time," in a very real sense. If the members care at all for the future of the Society, if they wish to know that the Twentieth Century will see it standing high above the strife of parties, a beacon-light in the darkness for the guiding of men, if they believe in the Teacher who founded it for human service, let them now arouse themselves from slothful indifference, sternly silence all dissensions over petty follies in their ranks, and march shoulder to shoulder for the achievement of the heavy task laid upon their strength and courage. If Theosophy is worth anything, it is worth living for and worth dying for. If it is worth nothing, let it go at once and for all. It is not a thing to play with, it is not a thing to trifle with. Ere 1891 sees its earliest dawning, ere 1890 falls into the grave now a-digging for it, let each Theosophist, and above all let each Occultist, calmly review his position, carefully make his choice, and if that choice be for Theosophy, let him sternly determine that neither open foes nor treacherous friends shall shake his loyalty for all time to come to his great Cause and Leader, which twain are one.



As to the Philosophy, by whose assistance the Mysteries were developed (and which, we may say, they were designed to teach), it is coeval with the Universe itself; and, however its continuity may be broken by opposing systems, it will make its appearance at different periods of time, as long as the sun himself shall continue to illuminate the world. It has, indeed, and may hereafter be violently assailed by delusive opinions; but the opposition will be just as imbecile as that of the waves of the sea against a temple built on a rock, which majestically pours them back, broken and vanquished, foaming to the main. However it may be involved in oblivion in barbarous and derided in impious ages, it will again flourish — through all the infinite revolutions of time.

— THOMAS TAYLOR, in *Eleusinian and Bacchic Mysteries*

THE DIVINE MYSTERY OF DEATH AND BEREAVEMENT

H. T. EDGE, M. A., D. LITT.

DEATH and what happens after death is a subject that never fails to attract interest; for we are not only concerned as regards our own fate and that of our loved ones, but we feel that in the mystery of death lies the clue to many mysteries of life. Theosophy can throw a new light on the question and set our feet on the path that leads to knowledge; but, though a veil may be lifted, the unveiled truth must remain an incommunicable mystery until we have advanced to that state of enlightenment when we may be competent to receive it. For just as we may find it impossible to communicate our thoughts to an animal, however strong the desire on both sides that such communication should pass; so it must necessarily be impossible for those beyond the veil to communicate their thoughts to us. In both cases there is no common ground of understanding. This is sufficient answer to the question, Why have not the hosts of departed, through the ages, revealed the mystery to the living? They cannot; perhaps they have often sought to do so, but in vain.

All knowledge must be either infinite or limited; and, if limited, there must be boundaries, beyond which lies mystery. It is wise to recognise this fact and not seek to define the undefinable. But let us at the same time remember that such limits are not immutably fixed: that which today we cannot comprehend, may on some morrow (and who knows how soon?) be within the grasp of our expanding consciousness.

Theosophy applies a key which can interpret the facts of experience, thus satisfying our reason and reconciling us to our lot; but nothing is gained by denying or glossing over the facts and seeking refuge in a shallow optimism. Death may be beautiful and often is so, but not always. The quotation —

They that have seen thy look in death,
No more may fear to die —

represents one aspect of the truth, which will be confirmed by the experience of many; but it is not always so. And if we are to interpret the

facts of life, we must not shrink from admitting them, and allowing that death (in our present stage of evolution) is often an ugly thing. We share the common lot of a race whose many imperfections and ignorance we are well aware of. The untrammelled will of man, which led him into errors, can lead him out, made wiser and nobler by his experience. What must be borne is made easier to bear when we know its meaning and recognise its justice; and by a due recognition of the mistakes of the past and the sorrows of the present we can fit ourselves to prepare the future.

Biology is spoken of as a materialistic science; but all science, when pursued with loyalty to truth, must conduct us to revelation. In the microscopic study of the cell, that unit of life, the biologists have found that the perpetuation of life by reproduction is everlasting, affording no ground for the idea that death is a process of wearing out. The complex organism, with its trillions of cells, is all produced from one original cell; yet these innumerable daughter-cells adapt themselves in form to the various functions they are called on to fulfil in their respective parts of the body. In searching for the cause of this adaptation of structure to destined function, the biologists have looked within the cell itself, rather than to some cause outside; and have found a life-spark, electric in nature, which to them seems the determining power. How much farther can physical research with the microscope go? The individual lives of the cells are subordinate to the life of the entity of whose organism they are component parts. They adapt themselves to the changing needs of that growing organism, reproducing themselves indefinitely, by a continual process of death and birth, so long as that entity requires their services. But the process of cell-reproduction as part of the body is not eternal; because there comes a time when the entity no longer requires that body for its use. It is then that, the superior law now abrogated, the cells fall apart, to pursue their own evolution elsewhere. 'Death' has taken place.

Man is a spark of divine conscious life, clothed in several sheaths, of which the physical body is the outermost and briefest. The essence of man is immortal, but the life of its several vestures or sheaths is limited. If a man continued indefinitely in the same physical body, his evolution could not be accomplished; there would be stagnation — contrary to Nature's laws. While dwelling in a physical body on earth, the inner parts of man's nature have been deprived of due expression; and a time must come when man leaves one sphere of self-realization in order to ex-

press himself in another. It is just as when, after a long day's experience, we halt for a while from the type of waking experience in order to live another kind of life — that which we pass in sleep. It is often said that man at death seeks rest; but it can equally well be said that he needs birth; one part dies, another is born. Man dies from one world and is born into another. It is not possible to separate death from birth; the two always occur together, like coming and going.

A great step forward has been made when we come to regard our life as something which goes on unceasingly, reaching indefinitely into past and future; a single earth-life being but a passing phase. What an advance on the view which regarded one earth-life as the only one, to be followed by uncertain prospects of life elsewhere and 'for ever,' and preceded by — what? How many have given serious attention to the possibility (should we not rather say certainty?) of life before birth?

Yes, it is true that human life is thus continuous, stretching far into past and future, death and birth being recurrent phases in it. Until we grasp this truth, life will always seem an insoluble enigma; grasp it, and how the problems begin at once to clear up!

Is death destruction? Dissolution would be a better word. Nothing can be really destroyed, and yet nothing is perpetual. This apparent contradiction is readily reconciled, if we remember the distinction between what is compound and what is simple. A compound breaks up into its component elements, and thus can be said to die; the compound, as such, dies. But the elements do not die. Death is merely an alteration in the constitution of the compound being, a change from one state to another, such as might occur in physics and chemistry. At the death of man there is a separation; something withdraws from the physical organism, causing it to fall apart; and what remains of the man is clearly not the same as before. That particular compound, which we called the man, has undergone partial dissolution. Perhaps the remaining parts still cohere; in which case there would survive a being different from the one we knew on earth, but not wholly different. It is natural to infer that this death might be followed by other successive deaths, as the several component elements of the compound man separated; and that thus man might gradually be reduced to his unitary essence. A reverse process might be imagined by which this unitary essence should gather to itself other vestures, and the full compound man be again reproduced.

Here then we have a speculative view of death, which is quite dif-

ferent from customary views, and certainly strikes one as more rational and more in conformity with Nature as we witness her operations in other departments. But our speculative views are always likely to be simpler and cruder than the actual facts turn out to be. Nature is infinitely complex and varied. The actual facts as to death and the after-death adventures of man are known to the adept-student of those mysteries; and the knowledge of these facts forms part of the great body of knowledge known as the Secret Doctrine or Wisdom-Religion, now taught under the name of Theosophy. To a great extent this knowledge is of a kind that either must not or cannot be communicated to uninitiated people. A reasonable mind will be prepared to concede the necessity of secrecy as regards knowledge which might be harmful to the human race in its present stage of moral responsibility; and, as said above, there are many matters which, of their own nature, are incommunicable, as not being reducible to the terms in which we are accustomed to think and conceive.

Nevertheless many truths have been given out publicly since the founding of the Theosophical Society, and a way lies open for all who may feel themselves able to observe the conditions necessary for fuller knowledge. A study of Theosophical literature will acquaint the inquirer with these teachings. A brief summary may be given by regarding man as threefold: an outer physical organism, an inner spiritual essence, and an intermediate nature — the sphere of his ordinary mental and emotional life. The dissolution of the physical body, displaces (as it were) the keystone of the arch, or the hinge-pin of the mechanism. In man unite the spiritual and the earthly, the celestial and the terrestrial; but it is the physical body that provides the condition for this union; and, when the physical body is gone, the union falls apart. Except in the case of advanced initiates, man cannot exist as the same compound entity after the loss of the physical body as before. There ensues a separation between the spiritual part and the terrestrial; the former entering the state of Devachan, the 'heaven-world,' to enjoy rest and bliss until the time for reincarnation; the latter fading away in a process sometimes spoken of as the 'second death.'

It is only for a very brief period immediately following decease that the entire man (less the physical body) is able to cohere, and then it may be able to impress the perceptions of those still living, causing the appearance of a fantasm or some other death-warning to the loved ones on earth. But after the 'second death,' when the higher principles have

separated, passing, as aforesaid, into Devachan, the residue constitutes a rapidly disintegrating psychic element, a 'spook.' In the case of people of strong carnal passions, this psychic residue is able to prolong its life for a period of varying length, by vampirizing the living. It attaches itself to the weak, the neurotic, the criminal, thereby prompting them to sudden heedless crimes. Its unholy craving to perpetuate its life is sometimes encouraged by well-meaning but unwise people, whose ardent desire to communicate with departed loved ones has led them into necromantic practices and the use of mediumship. Its own memories and those of the sitters provide it with the apparatus for a plausible impersonation of the actual personality of the deceased, accompanied by what seems to be conclusive proof of identity. But whatever of the actual personality of the deceased may at first have been present, soon fades away, and the channel of communication thus opened is availed of by other psychic entities of a low grade and noxious to the living. Thus this method of attempting communication with the deceased is delusive and harmful, and can only result in establishing undesirable links between the healthy world of men and the dregs of the astral plane. The real man, the imperishable essence, has passed into celestial spheres beyond the contact of earth-life.

Such is a very brief outline of the Theosophical teachings, which are the teachings of the Wisdom-Religion in general; but there are many details which must be filled in by study. Any inaccuracies in the above outline are due to the fact of its being a mere outline.

The question may be approached from the psychological angle. Here it is of course much hampered by the lack of definition given to the words personality, individuality, or self, or 'I.' Do *I* survive? What do you mean by 'I'? What we know as our 'self' during life is a complex thing; a slight physiological change alters it profoundly. What becomes of it during sleep? Is the 'I' likely to be the same without the physical body as with it? In such case, what would be the significance of physical incarnation at all? Our normal ego is a kernel of selfhood enclosed in many sheaths of memory and other kinds of mental impressions. Many of these are connected with the physical world; the physical world gone, how changed must be the selfhood!

So the question, Do I survive? cannot be answered by a simple yes or no; the question itself needs definition before it can be answered. What survives is much altered from what existed before; but yet it is

not wholly changed. A man is changed somewhat by the loss of a dwelling and by the loss of his clothes; still more by the loss of his physical mechanism. He is psychically and mentally changed thereby. Is the change a loss or a gain? Here again we may say yes or no, with equal truth, according to the point of view taken. Man certainly loses the power of expressing himself in the physical world; and with it he also loses familiar notions of space, time, substantiality, etc., which have hitherto formed the basis of his ideas; so that his state of consciousness must be much altered. But he gains increased power of self-expression on another plane. What he has lost may be considered either as utilities or as obstacles. He has lost in one sense and gained in another.

In considering death from the psychological angle, it is clear that the solution of the mystery can come only through self-examination. We must analyse selfhood and find out what it means. What is the essential self, and what the various temporary selves produced by the investiture of the essential self in various sheaths? The analogy of an actor playing parts is useful: Othello dies and Salvini remains; which is the real self, which the fictitious? Or we may use the analogy of light shining through screens.

When we consider the utterly insignificant value of our personal self as a part of the universe, and how there are billions of other such personal selves, it seems absurd to suppose that there can be any permanence in such a vain trifle. Actually the thing changes from day to day. When comparatively slight physiological changes can produce such changes in our personality, how much greater must be the change produced by the total loss of the physical body? The personal self is a prison in which we are shut up; it is a vampire upon our real life. The Teachers say that, to live, we must 'give up' our life. This means that, to find the real self, we must escape from the prison of our false selves.

But the Teachers say also that, without waiting for death to force the change inevitably, it can be achieved in life. And how? By initiation into the Sacred Mysteries. By such initiations — many successive ones — we learn by actual experience the truth about man's compound nature, and advance step by step from one degree of self-knowledge and liberation to another. Then death becomes a mere bagatelle, an outward change, affecting not the permanent thread of consciousness which is common to both life and death.

It is doubtful if anyone has in his heart believed that death is the

final end; for such a belief, if really held, would alter his conduct so much as to render him incapable of living as a member of society. Actually people behave as though they were going to live on, as though they felt that the loss of their body would mean nothing, either to them or to the world in general. We are better than our professed beliefs.

The notions of immortality derived from religious doctrine offer us a perpetual continuation of the personality, which, even when associated with prospects of bliss, often seems intolerable. And well it may be; disgust with personality may goad men even to the adoption of violent attempts to end it. It is from *ourselves* that we crave release. Death, in thus releasing us, may truly be called a blessing; and there can be no doubt that, the pains of passing once over, this sense of blessed release is really felt.

The question of bereavement is always a hard one; yet, as it is a fact and cannot be explained away, the best thing to do is to see what relief is possible. It is matter of experience that Theosophy has been able to afford this relief and so to fortify the heart and understanding of the bereaved that he is able to sanctify his sorrows and make them the starting point of a new era of peace and helpfulness. It is so natural, so right, that, while on earth, we should cherish the almighty power of Love in its personal manifestations; but such Love, if true, will but strengthen our hearts when Divine Law calls us to enter the portals of a Love that knows no limitations. The true essence of Love is in the joy of giving; and this can never be taken from us. Though we no longer see and feel, as of old, the familiar object of our love, we still have the love; and it is now that we are ready to make it a blessing on all those who are still with us in the flesh.



SOME minds, otherwise bright, have objected to leadership: "We are as unwilling to submit to a leadership or dynasty of thought as any other." This, however, is to misunderstand and to be frightened by a word, when the thought is reassuring. The very law which requires that mankind should have *no owners*, requires that it should have *guides*. *To be enlightened* is the reverse of being *subjected*. The march forward requires a directing hand. To rebel against the pilot scarcely advances the ship; one does not see what would be gained by throwing Columbus overboard. The words "This way" never humiliated the man who was seeking the road. At night I accept the authority of the torches.

— VICTOR HUGO

A SCIENCE OF NATURE

OLUF TYBERG

I

“**M**AN know thyself” is an injunction that came ringing down the ages, and with it came several other unheeded messages from the teachings of ancient philosophers, such as “Man is in himself a Universe in miniature” and “When man looks into himself he is looking into the heart of the Universe.”

Has the time arrived for a serious scientific consideration of these ancient messages? Realizing that some of the progressive scientists are now expressing views and conceptions of Nature identical with those of ancient philosophers, we may be justified in thinking that not only these messages, but the conceptions upon which these messages were based, are entitled to scientific consideration.

The present is a period of transition. A mental reconstruction, precipitated by a series of quite unexpected events, is going on everywhere. It is reflected in physical science, where new and startling discoveries have subjected the very foundation to a severe test, and revealed weaknesses in heretofore unassailable axioms.

The axioms of physical science were formulated by Newton merely as a basis for certain methods which he proposed to apply as guides in future efforts to learn *how Nature works*. But in the course of time, as new methods of formulation were invented, scientists began to forget the merely provisional nature of these methods, and to consider them as ends in themselves. It is these methods which we now find described in textbooks of physical science, where they have been classified and formulated with the object of teaching us *how man works* when he believes in science and learns how to manipulate the forces of a mechanical Universe for his own benefit, regardless of consequences. While these methods have led to a series of great discoveries and remarkable industrial achievements, they have also fostered an entirely false conception of Nature and of man's relations to Nature. This explains why these great achievements are not proving an unalloyed blessing, but rather a double-edged sword. This result may serve to suggest the necessity of distinguishing between a science of methods and a science of Nature, and of making the former subservient to the latter.

As man is no longer regarded as a special creation, but as a child of Nature and an integral part of the Universe, we are justified in assuming that in whatever way we attempt to study and interpret Nature, man and his mind must be included as an important link in the universal scheme of things. Furthermore, it is man's powers of introspection, observation, and ratiocination, and his corresponding moral, mental, and physical capacities, that constitute his sole guide in the acceptance of any pronouncements of a religious, scientific, or philosophical nature. The recognition of this should prepare us to consider, as did the ancient philosophers, that the key to an understanding of Nature is man himself and his relation to Nature, and that before it is possible to understand and control the forces of Nature man must first be able to understand and control himself.

Can the relations between man and the Universe be confirmed scientifically? Is "man in himself a Universe in miniature"? Is it possible for a mathematical science to present confirming evidence showing that "the Universe is in itself a macrocosmic organic entity"? Before considering these questions let us remind ourselves how experience shows that we can see only what the senses have been trained to observe and the mind is prepared to recognise, and that established preconceptions tend to cripple our ability to observe, and limit our capacity to understand. This should make us realize that neither our ability to observe nor our capacity to understand springs from experience itself but from an inherent urge and abiding faith in our capacity to understand, supplemented by a courage of conviction strong enough to enable the open mind to approach ever nearer the truth of which Nature is the expression.

We are living in an age of amazing revelations, when great achievements and unruly passions try to keep pace with one another, and we are compelled to realize the ever-widening gap between our much boasted knowledge and our very limited understanding. The fact that we have learned to utilize the forces of Nature so effectively without any real understanding of them and their relation to man himself, should make us pause and consider whether reason, completely divorced from faith, is deserving of the pedestal upon which it has placed itself.

Faith is the key to the open mind and the enlarged vision. It is faith that surmounts obstacles and creates new opportunities; it is faith that moves mountains while reason trots behind and records the experience. When reason has digested the experience and formulated it with

mathematical precision, reason assumes credit without realizing that by itself it possesses no initiative whatsoever. Reason is a faculty which at best barely succeeds in moving in complete circles, as it does when it becomes logic. But the sweep of these circles can be increased only by faith: without this aid these circular motions form mental grooves, tending to limit our conceptions and establish conventions.

It was faith that sustained the pioneers during the Middle Ages against entrenched and merciless opposition. It was faith and reason combined that enabled them to lift veils from the minds of men and to lead them from complete mental slavery and darkness out upon the road of progress towards freedom and light. But this faith gradually disappeared through the Newtonian age, as scientists in opposition to religious dogmatism cultivated a self-sufficient agnosticism, which resulted in reducing Nature to a convenient mechanism, and science to a bundle of technical theories resting upon a system of mathematically formulated measurements.

It is this faith we must revivify. When, like Giordano Bruno, we become imbued with the realization of man's intimate relation to Nature, and convinced that Nature within and Nature without are the joint custodians of truth, our ability to establish it as a scientifically confirmed fact depends solely upon the open-minded intelligence that we can bring to bear upon experience and can express in our conception of and attitude to Nature.

To know how Nature works is a problem whose solution depends upon our ability to present it to our mind as a clearly formulated question in accordance with our convictions, knowledge, and experience; for the answer to any question is contained in the question itself. Skilled experimenters usually learn to understand the mental process leading to the solution of a problem. The process usually proceeds in intermittent periods of intense mental effort. As the effort continues, the problem becomes more and more clearly formulated in our mind, and its solution finally reduces itself largely to a process of dissolving the preconceived and blinding notions that have become fastened there. The answer finally appears as a revelation, coming usually at a time when the mind is not occupied with the problem, but is in a state of apparent tranquillity. This indicates that it is not the mind that answers its own question, but rather that the mind, after having been purged sufficiently, is prepared to receive the answer. And the answer comes from the heart or

innermost center of our being, where inherent or intuitive knowledge resides. When once we become imbued with the conviction that this center is also the innermost center of the Universe we shall realize that the understanding of ourselves must proceed *pari passu* with that of the Universe.

Truth is within ourselves; it takes no rise
From outward things, whate'er you may believe.
There is an inmost center in us all,
Where truth abides in fulness; and around,
Wall upon wall, the gross flesh hems it in,
This perfect clear perception — which is truth.

All human progress proceeds from an earnest desire to know and to understand, coupled with a conviction that knowledge and understanding are attainable. The recent utterances of many leading scientists are a distinct indication of a growing desire on their part to learn how Nature works. To satisfy this urge they must pursue the course above outlined. They must disregard the convenient theories based upon and applicable to methods only, so as to be able to dissolve the mistaken assumptions and habits of thought inducted into the mind from such theories during the past.

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The modern doctrine of energy, generally referred to as the principle of the conservation of energy, is one of the convenient doctrines that are largely responsible for molding the scientific attitude to Nature. It was declared by Clerk Maxwell to be "the one generalized statement, which is found to be consistent with facts, not in one physical science but in all," and it is now regarded as the great achievement of the nineteenth century. We shall refer to this doctrine briefly because its introduction into physical science marks the final break between science and philosophy. It has thus, besides a purely scientific interest, a historical and a psychological significance.

The doctrine of energy was first suggested by Lagrange and advocated by Joule in the very early part of the last century, when the influence of the Kantian philosophy had resulted in a renewed effort on the part of some physicists to obtain a better and more rational conception of the forces of Nature and their correlation. An animated discussion arose, which became more and more objectionable to some observers, who condemned it severely for being as involved, obscure, and speculative as was the Kantian philosophy itself. With the aid of such

prominent physicists as Lord Kelvin and Dr. Rankine, the discussion was finally closed by introducing a generalizing term, energy; by defining the energy of a body as its capacity for doing work; and by introducing into physics the doctrine of energy, which soon proved to be a valuable stepping-stone in the march of material progress.

The keynote of utility was struck by Lord Kelvin himself, who in order to close the door to all further discussion of a speculative nature, declared that "when you can measure what you are talking about and express it in numbers, you know something about it, and when you cannot measure it and when you cannot express it in numbers, your knowledge is of a meager and unsatisfactory kind." Looking back over the events that have taken place since that time, we find that when scientists substituted *energy* for *force* and closed the door to speculation, it opened another door to assertions which as the century advanced became as dogmatic as churchianity itself, until at the close of the century quite unexpected discoveries delivered a death-blow to scientific dogmatism and once more gave liberty to an imprisoned mind.

The doctrine of energy rests on the scholium to Newton's third law of motion, and originated in the Newtonian conception of matter as a container or carrier of a property to which the term energy was applied. It asserts that the quantity of energy in the Universe is constant; that energy, like matter, can neither be destroyed nor created; that energy can be transferred from one system to another; that energy lost by one system is equivalent to that gained by another; and that energy is subject to an endless round of changes.

Theory postulated that energy could exist in a state of either rest or motion, which two states were defined respectively as potential and kinetic energy. Physical text-books are still informing us that, when a system having potential energy acquires motion, the potential energy is transformed into kinetic energy; and that, while performing work, this energy is transferred to the system upon which the work is done and re-transformed into potential energy.

Upon the strength of this theory physical science formulated its technical methods, by means of which it became possible to measure accurately a large range of mechanically produced effects. As these methods were applied not alone to the movements of rigid bodies, but also to chemical, thermo-dynamic, and magnetic reactions, technical science advanced by leaps and bounds.

A vast series of mathematically presented theories was elaborated. The methods, together with these theories, constitute what is recognised as physical science. Towards the close of the last century, the series completed at that time was collected and presented by Thomson (Lord Kelvin) and Tait in two large volumes entitled *The Elements of Natural Philosophy*, a monumental record of careful research and a great credit to its learned authors. Unfortunately, however, results seem to indicate that when once a physicist has mastered this technique, he has succeeded in eradicating from his mind every conception of a philosophy of Nature, for not a trace of it is to be found in this voluminous work.

In this practical age the value of everything is appraised by the material advantages it offers, and technical efficiency achieves a commanding position. But the physicists themselves were carried off their feet when they ventured to extend the application of the principle upon which their technique rested, and to deduce from it an interpretation of phenomena beyond the customary range of their investigations. For instance, whereas the biologists had held that organic life and its protoplasmic medium were by some kind of fundamental determinism evolved from matter in motion, the physicists now added that life as well as motion originated in a potential energy stored up in the Sun, from which it was transferred to planetary matter. When Dr. Millikan isolated the Cosmic ray, it came to be regarded as fundamental to physical energy; and while its origin was first traced to the Milky Way, it is now being sought for in the outermost reaches of frontierless space. The doctrine of energy had become a valuable aid in bolstering up a one-sided theory.

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While the methods upon which the doctrine of energy rests have confirmed the idea that energy is not destroyed but can undergo innumerable changes and can exist in many forms, not one iota of evidence has been presented with regard to energy itself, what its nature is, how it can change itself from one state to another, how it can transfer itself from one system to another, or how it can differentiate itself into distinctly separate and uniform mass-formations.

Such propositions are as unthinkable as is the idea of a Divine Intelligence directing such an energy, and we are reminded here of the following statement by Galileo: "Once we admit the arbitrary interference of an external Deity, every explanation is possible and reason dethroned."

Mechanical methods and their mathematical formulation originated with Galileo, who regarded them as subservient handmaids in his attempts to obtain such definite knowledge as would enable him not only to confirm his own rationalistic conception of Nature but to convey that conception to others. But when Newton interpreted these methods in accordance with his own empirical conceptions, and when his followers learned to realize the utilitarian value attached to such methods, they ceased to be regarded as subservient handmaids and became the sole guides to an interpretation of Nature.

The utilitarian value attached to empirical methods has tended to sustain the conventional attitude which assumed a complete separation between man and Nature, and which represented man as an independent and supernaturally endowed external agent residing in a Nature supposed to exist for his particular benefit.

This conception will continue just so long as men in general and physicists in particular insist upon emphasizing the scientific importance of discovering ways and means of utilizing the energy stored up in the elements. It must be evident that to the extent that physicists make 'utility' the paramount object and exact mechanical methods the sole guide, just to that extent do they cultivate an attitude which, because it is distant and hostile, must be biased and misleading and in conflict with the rational conception of man as a child of Mother Nature.

The number of isolated phenomena which can be established experimentally is practically endless. Mechanical methods can be increased indefinitely, and can vary in character with human inclinations and with the fluctuating tendencies of the times, even though the processes of Nature may be the same today as they were a million years ago. Methods, together with a technique established by way of methods, constitute an important and necessary scientific 'shop-practice'; but when the physicists utilize this shop-practice for purposes of interpretation, they transform valuable handmaids into misleading guides, and reduce Nature to the status of a mechanical automaton.

The fact that the results achieved by exact technical methods constitute the proof of their value and usefulness, does not preclude the possibility that mere accuracy is an insufficient guide to a correct interpretation of the processes of Nature. This possibility is clearly indicated as soon as we realize that no two natural objects have ever been proved to be exactly alike in either quality or quantity. Nature persists in inform-

ing us that her inherent characteristic is uniformity rather than exactness.

This pertinent evidence has not yet been sufficiently recognised, and one of the reasons for this can be traced to the conventional attitude which regarded physical nature as consisting of permanent containers of properties. Because both the form of these containers and these supposed properties could be subjected to exact measurement, physicists utilized quantities as the sole key to an inductive interpretation of Nature.

On the other hand when we now begin to consider the unexpected discoveries of the last forty years, a certain credit must be given to the technical methods. When the full significance of these discoveries is recognised there will no longer be any need of resorting to unthinkable propositions, for we shall learn that Galileo was right, and that mechanical methods have the capacity to confirm the Platonic and rationalistic conception of the structure and operations of Nature.

II

ROENTGEN's discovery of the X-ray in 1895 marks the beginning of a new scientific era. Opening up new fields of investigation, this discovery provided the basis for startling advances in method, and is rapidly proving to be most far-reaching in its effect upon scientific conceptions of Nature. By the aid of the X-ray, ingenious methods have been perfected for indirect observation, and physicists have been able to determine how Nature works in the invisible regions of space. One of the results was the isolation of the chemical atom.

The chemical atom is now known to consist of a positive nucleus — the proton — and negative waves or particles of electricity — electrons — which revolve continuously around the nucleus. In other words, the atomic structure exists as a self-sustained, orbital movement. The circular movements differentiate one atom from another and transform the field in which the movements take place into states of quasi-rigidity, establishing the atom as the mass of an independent bodily structure.

Science has shown how these atoms can be destroyed and transformed into different kinds of energy, including that of the Cosmic ray, but it has presented no evidence whatsoever to justify us in thinking that a Cosmic ray or any other kind of energy can organize and differentiate itself into distinctly uniform orbital movements. As an explanation this proposition is unthinkable, for it does not account for either the uniformity in structure, or the characteristic differences by which atoms

of the different elements and groups of elements are distinguished.

But more important than the relation of atoms to the chemical elements, is their relation to the earth and everything belonging to the earth, including the atmosphere surrounding the earth. What makes it possible for these tiny masses, existing in the form of whirling movements, to unite and function as molecules, cells, and organs, and constitute themselves into composite bodies of minerals, plants, animals, men, planets, and even solar systems? The answer to this question must be found in the atoms themselves and requires an explanation of what is involved in an independent and self-sustaining movement.

Whether the revolving medium in the atoms consists of electrons or waves does not concern us here. Waves cannot wave unless they have that capacity we identify as resistance. In order to establish an independent and continuous movement, there must be something in the movement itself that has the force or capacity to overcome its resistance to motion and to determine its velocity. But this conception of motion has been brushed aside by Newtonian physicists, and even in this twentieth century we read that

. . . the idea of motion and force (Newton's first law) is radically different from the conception of Aristotle and the older philosophers, who thought that whenever a body was in motion some force must operate to keep it moving. On the contrary, no force whatever is required to keep a body in motion; force is required only to change the motion. If, through the action of some force, a body be set in motion and the force ceases to act, the body will not stop but continue for ever to move forward in a straight line at a uniform speed.¹

This quotation is a reiteration of Newton's conception of motion as something bestowed upon planets when first created by God and supposed to be moving in empty space. From this conception physicists deduced the idea that motion could be considered abstractly as something that can exist independent of force and matter (resistance).² At a later stage we shall have an opportunity to discuss more fully the Newtonian conception of motion and its origin, and for the present confine ourselves to viewing it in juxtaposition to the ancient conception.

When we eliminate from consideration any idea of special creation or supernatural intervention, and refuse to accept the idea that an external energy can organize itself and direct the atoms and their move-

1. *Gravitation versus Relativity* by Prof. Chas. L. Poor.

2. See Preface to *Treatise on Natural Philosophy* by Lord Kelvin and Tait.

ments, we seem justified in recognising the existence of an internal energy subject to the control of entities or beings whose bodies exist in the form of circular motions. This is what Plato did when he stated that a *circular movement is one of the first signs of entitative, free existence*, and in addition defined an organic entity or being as *a body capable of acting and of being acted upon*.

In the light of the evidence presented by science concerning these atoms and their behavior, this definition appears to be particularly applicable. The atoms can move, unite, and disperse. They can be magnetically drawn together and can constitute themselves bodies of a more composite nature, and while thus united become co-workers in the performance of functions of such composite bodies. When repelled or released they can seek new opportunities and experiences elsewhere.

When we recognise this and think of all the wonderful and symmetrical crystal formations, such as those of opals and diamonds, or those of exquisite flowers, or of the marvelous array of animal bodies, and finally of the intricate and delicate functions and organs of the human frame, and realize that the work of producing and sustaining all these separate bodies is accomplished by these busy atoms, we are facing a problem fundamental to a science of Nature that cannot be disposed of by referring to atoms as 'building-blocks' on the ground that a mathematical science is concerned with only the metrical aspect of Nature. By so doing physicists deliberately set a fixed limit to what constitutes real scientific knowledge and arbitrarily assume the right of fixing a metric borderline between the knowable and unknowable.

This attitude can be traced to the persistent habit of accepting new evidence superseding *prima-facie* evidence without dismissing the conceptions inducted into the mind by this very *prima-facie* evidence. When once erroneous conceptions have been established in our mind as conventions, they possess a subtil tenacity, and are difficult to combat. We do not and cannot *see* a convention, but everything that we observe is weighed and measured by it. Without wishing to depreciate the value of empirical knowledge, we should still recognise that experience itself demonstrates its limitations by showing how the correctness of our observations depends not only upon the things observed but upon the state of mind of the observer. While our power of observation is dependent upon our ability to form a correct conception of the things observed, our preconceptions are continually tending to deceive us.

Plato's interpretation of a circular movement is supposed to have been disposed of effectively long ago as one of his 'fantastic speculations'; and so it was, but only by physicists who considered it disproved by their own preconceptions, which were based upon Newton's more scientific presentation of a physical Nature made up of conservative systems. The substance of these conservative systems Newton explained as follows:

It seems probable to me that God, in the beginning, formed matter in solid, massy, hard, impenetrable particles, of such size and figures and such other properties, and in such proportion to space as most conducive to the end for which he formed them, and that these primitive particles, being solids, are incomparably harder than any porous bodies compounded by him; even so hard as never to wear or break to pieces; no ordinary power being able to divide what God himself made one in the first creation.

Accordingly Newton considered physical Nature as endowed by God with independent existence and with a reality of its own, while its conservative matter could only be subject to the actions of external agents and blind forces. As these external agents were identified as organic entities, specially endowed by the Creator with mind, a sharp distinction was drawn between organic and inorganic nature, and it was with the latter only that a mathematical science concerned itself.

Newton presented his general conceptions of Nature on *prima-facie* evidence and as a provisional hypothesis, while his followers accepted them dogmatically and taught them as representing a demonstrated verity. When finally new discoveries revealed facts utterly disproving this *prima-facie* evidence, we were told recently by a prominent physicist that these apparently revolutionary discoveries "however merely involve the supplementing of modern physics rather than its replacement by entirely new doctrines." A striking example of the tenacity of conventional conceptions.

Let us briefly review some of this new evidence and its bearing upon a science of Nature, quite aside from all mechanical theories. More than 300 years ago, Giordano Bruno, endorsing Plato's conception of motion, declared that everything in Nature exists in a continuous state of motion and change, that all movements and changes proceed in an orderly and uniform manner and reveal themselves as a complete and harmonious whole. This ancient pronouncement has now been fully confirmed by modern science. Great diversity on the one hand and harmonious uniformity on the other are inconceivable without also recognising

a definite, underlying purpose and an all-pervading intelligence guiding and directing this purpose. Dispensing with the idea of an external creator as inconceivable, but without ignoring the idea of an all-pervading directing intelligence, we must recognise this intelligence as expressing itself in and through the very bodies whose movements and changes we observe.

When physicists incorporated forces under the general term 'energy,' and defined the energy of a body as its capacity for doing work, on the assumption that bodies were containers of energy, they also presented evidence showing how this energy can undergo innumerable changes. But in spite of the fact that physicists were continually reducing mass into energy, they failed at first to recognise that Nature is continually transforming energy into mass. This was recognised only after indirect research had identified the physical constitution of the chemical atom, when energy and mass were declared to be alike and the whole of Nature reduced to atomic energy and mass.

It is inconceivable for a continuously moving and changing Nature, scientifically recognised as representing an interrelated, uniform, and harmonious whole, to have been built up by a "fortuitous concourse of atoms." Physicists must therefore abandon the idea of a fundamental physical and inanimate Nature having an existence of its own, and of a mechanical energy capable of organizing and directing itself, and must begin to bring a larger vision to bear upon their own evidence.

The evidence shows that the atoms have not only the capacity for doing work but are continually performing work both individually and collectively. They must therefore exist as self-acting entities, *i. e.*, as defined by Plato, as *bodies capable of acting and of being acted upon.*

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While a science confining itself to a specialized study of methods can afford to spurn philosophy, a science of Nature, whose function is to determine how Nature works, is helpless without philosophy. This latter science must be both rational and empirical, deductive and inductive. This becomes obvious when it is understood that physical evidence, established scientifically by measurements, leads only to conclusions from which therefore no further conclusions can be made. Hence empirical evidence is secondary in the sense that it serves only to confirm or to reject any previously formulated conception of Nature.

One of the reasons why a science of Nature has been so much neglected is the agnostic attitude prevalent among the scientists themselves. This attitude appears to be in general agreement with that of Herbert Spencer, who maintained that whether Nature is eternal, or created by an external power, or self-created, none of these modes is within the grasp of the human mind, and that the whole problem is unthinkable. In making this dogmatic statement, however, this great apostle of agnosticism proved his complete ignorance of the sound and comprehensible ancient conception of self-creative, self-acting, and self-contained Nature.

Before considering the ancient conception of a self-acting Nature, it may be well to remind the reader that the sense of superiority so generally assumed by modern physicists towards ancient philosophy is neither justifiable nor capable of being sustained by facts, but is largely an inherited habit of thought perpetuating that persistent attitude of the Church towards pagan knowledge which resulted in keeping the Christian world for many centuries in complete ignorance of the truth. Recent careful researches continue to make it more and more evident that ancient philosophy is not speculative but represents the accumulated knowledge and experience of past great civilizations, while on the other hand recent physical investigations, as has already been indicated here, make it perfectly evident that modern scientific conceptions of Nature rest largely upon *prima-facie* evidence and upon theories deduced from mechanical methods.

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Let us consider the logical consequences which arise when the chemical atoms are identified as bodies of entities in an early stage of development, in other words as 'builders.' As all observable structures are composed of atoms, such structures must have come into existence as bodies of higher entities, capable of directing and co-ordinating the lower entities performing the function of building these bodies. Hence all movements and structural transformations in Nature must be directed from within by an informing principle as in the body of the human entity, and Nature becomes the physical manifestation of as many differently developed entities as there exist different forms and states of physical matter.

It should be noted however, that while recognising the atom as an entity, it must not be regarded as the first sign of entitative existence.

Ancient philosophy postulated three elementary stages below that of the mineral kingdom. Scientists may be said to have confirmed this when they discovered that the atom is composed of electrons, and that these electrons in turn are composed of photons, and furthermore established evidence tending to show that both electrons and photons have the capacity to act and to be acted upon. When the full significance of these latest researches becomes better understood, and when scientists are prepared to recognise that only entities can act and react with mathematical accuracy and in accordance with a universal plan, they will see the necessity of regarding photons, electrons, and atoms as the evidence of three elementary stages of entitative existence.

Everything in Nature is alive. The celestial bodies are animated beings. All things on the face of the earth and under the earth have in a certain measure and according to their state, the gift of feeling; the stone feels in a fashion which escapes the definition of man.—GIORDANO BRUNO

And again:

It is not rational to believe that anything in Nature is without mind, life, sensation or organic structure. From this infinite all, full of beauty and splendor, from the vast worlds which circle about us, to the sparkling dust of stars beyond, we must conclude that they represent an infinity of Creatures, a vast multitude, each of which mirrors forth, in its degree, the splendor, and excellence of divine harmony.

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According to this conception the whole of Nature is composed of units representing a vast scale of entitative existences from the most primitive to the supremely divine. All the kingdoms below man represent bodies of less developed entities, and as all these bodies, including that of man, compose the earth and everything belonging to the earth, it follows logically that the earth is the body of a much more highly developed planetary entity. Furthermore as the earth, together with the other planets and the sun, constitutes the solar system, our solar system becomes the body of a still more divine solar entity. Finally, when we consider our solar system as one of the innumerable cells in the body of a Cosmic entity, the entire Cosmos becomes the most complete bodily manifestation of Divinity. Such in brief was the ancient conception of the hierarchical structure of the Universe, in which every grade of intelligence, conceivable and inconceivable, has an endless opportunity for further growth and development.

While this rational, logical, and majestic ancient conception of the

hierarchical structure of the Universe recently has been presented much more completely in *Fundamentals of the Esoteric Philosophy* by Dr. G. de Purucker, this brief outline of a self-creative Nature is by itself entitled to a prominent place in the record of the early development of modern physical science. For the writings of Giordano Bruno show, and historical research confirms, the fact, that it was upon the strength of this conception that Bruno was able to identify the supposed fixed stars as solar systems like our own. This identification reinforced Copernicus's idea of the heliocentric system and prepared the work for astronomers like Kepler and Galileo, who afterwards became its principal advocates.

Perhaps this ancient doctrine may be able to render further service in response to the utterances of progressive scientists who, like Sir James Jeans, maintain that "the universe begins to look more like a great thought than like a great machine." It would seem therefore that the time has arrived when a serious attempt should be made to determine to what extent the hierarchical structure of the Universe can be confirmed by physical science, when its accumulated evidence is shorn of all theoretical appendages and studied in the light of a self-creative and self-acting Nature.

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When a science of Nature postulates a self-creative and self-acting Nature, it must approach experience with the understanding that in and behind an outer physical Nature there must exist an inner organic Nature, whose internal actions become fundamental to the external movements in physical Nature. Furthermore, it must recognise that organic actions are dynamic and have the capacity for doing work, and as such are the cause of physical energy and mechanical movements. In other words, instead of dynamics being a mere branch of mechanics as taught in a science of methods, dynamics becomes fundamental to mechanics.

In order therefore to determine the relation between the actions in a world of causes and the corresponding facts in a world of effects, we must have some definite conception of the nature of organic actions, which as such can be subjected to scientific confirmation. To obtain such a conception we must study man and his organic actions, and do so in the face of the metaphysical bugbear created by a one-sided empirical science.

While self-evidence does not constitute scientific evidence, we pro-

pose to point out its significance when considered in direct relation to physical evidence. If Nature is self-acting, and hence an unfoldment from within, nowhere can the relation between the inner and outer, between an organic and a physical Nature, be studied more directly than in man and by man himself. Besides, it is only reasonable to think that neither self-evidence nor self-knowledge can be ignored when attempting to interpret a Nature of which man is an integral part, with any expectation of bringing conviction to the mind.

So while many of the physicists are still laboring under the conventional conception established during the Christian era — that physical Nature rests upon a physical foundation — and are searching for a solution of the riddle of the Universe in the highways and byways of Space, let us assume the existence of a conscious organism in and behind physical Nature and for the purpose of gaining some understanding of such an organism, begin by making a preliminary excursion into the realms of the one being in the Universe who concerns us so much and of whom, as yet, we know so little — Man.

“THE SAYINGS OF THE ANCIENT ONE”

INTRODUCTORY NOTES BY CAPT. P. G. B. BOWEN

THE contribution under the above title by the present writer is a translation of *portions only* of a section, or ‘chapter,’ from a volume of mystic writings held by his friend, the Berber teacher, Mehlo Moya. This volume, which is written partly in Berber and partly in the archaic Bantu — the latter being unknown to modern philology — is in its turn a translation of some very ancient records, found, according to his own account, by Mehlo Moya himself, in a subterranean chamber in an ancient ruined city in South Africa. Whether this ancient city was that which is now known as Zimbabwe, or another, of which there are many belonging to the same civilisation, the present writer is not prepared to say. He has, however, seen the original records, which are in symbols and hieroglyphics, inscribed for the greater part on sheets of a kind of parchment — probably made from the intestinal membranes of large animals such as hippopotami — and for the lesser part on tiles, on stone slabs, and on sheets of some material resembling papyrus. These records are unquestionably very ancient, but whether Mehlo

Moya's translation of them is accurate the present writer cannot say, as the symbols and hieroglyphics are quite unknown to him.

Mehlo Moya's translation, which is of course in alphabetical script, makes a volume of close upon a million words, and this, if rendered into English, would probably take two million words. About a third of the volume consists of mystic stanzas bearing a strong family likeness to the *Stanzas of Dzyan*. The remaining two-thirds is made up of miscellaneous mystical writings, commentaries on the stanzas scarcely less abstruse than the stanzas themselves, parables and allegorical writings, of which the present fragments are fairly typical, occult teachings which are more or less intelligible to a Theosophical student, and lastly, a number of sections, or chapters, of a definitely historical nature.

Though allowed to read through Mehlo Moya's translation, the writer was not permitted to copy, or to translate, more than a limited number of selected passages, and these of the less abstruse kind. A somewhat remarkable specimen of these was published in *THE THEOSOPHICAL PATH*, issue of October, 1932.

Of the historical matter contained in the MSS., only a little can be said, of which the following may be of some interest.

The city, or the civilisation to which the original records belong, is said to have been founded in "*The First Circle of the Sun of the First Generation of the Builders.*" It fell, or rather was abandoned by the original people, in the "*Twenty first Circle of the Sun in the Hundred and First Generation of the Builders.*" Taken by itself this chronology gives no clue to the period during which the civilisation flourished, but in one portion of the record there is a reference to the completion of "*The Great Altar of the North.*" Elsewhere it is stated that this "*Great Altar*" was built close to the "*Union of the Sacred Great River*" with the "*Northern Sea,*" for a certain mystical reason. Now, as there is not, and never has been, an African river running into any northern sea, except only the Nile, "*The Great Altar*" cannot conceivably be other than the Great Pyramid. Now this "*Great Altar*" is stated to have been finished in the "*First Circle of the Sun of the Forty-ninth Generation of the Builders.*" Elsewhere there is a mention of a "*Thirty-ninth*" Circle of the Sun. A Generation was therefore a period of at least forty years. Hence the "*Builders*" founded their city at least 2000 years before the pyramid was completed, and it endured for fifty-three generations after, say at least 2200 years. If we accept the usual archaeologi-

cal estimate of the date of the building of the pyramid, 3350 B. C., the first founders of those old African cities ended their cycle about 1100 B. C., having begun it over four thousand years earlier. But if we accept H. P. B.'s estimate of the age of the pyramid, 78000 years, well —!

It is permissible to add, however, that those ancient cities did not perish with the vanishing of their first founders. They were, in fact, occupied and reoccupied by many different races, all more or less civilised, one succeeding the other right down to very recent times, comparatively speaking — in fact, until well after the first European colonies were established in Southern Africa, a few centuries ago. The final end of their occupation by civilised men came with the incursion of the warrior Bantu tribes from the North, and this I estimate from Zulu accounts of the length of the reigns of their kings, and the number of these kings (which are exceedingly definite and circumstantial) must have occurred no farther back than the middle of the seventeenth century, and probably a good deal more recently.

Finally, it is worth noting that the original record, all but the historical portions, is a poem. Mehlo Moya's translation is also poetry of a high order. This fact increases the difficulty of a translation into English, especially by one who, like the writer, is no poet. An attempt, a feeble one, has been made to preserve something of the poesy of the original in the present English prose, but at its best this does little justice to the original.

“THE SAYINGS OF THE ANCIENT ONE”

Fragments translated from the Berber, and Bantu, by

CAPT. P. G. B. BOWEN (see Introductory notes)

The words of the Ancient One to the neophytes in the Hidden Temple of the Hidden Sun spoken in the Thirteenth Moon of the Seventh Circle of the Sun in the Seventy and Seventh generation of the Builders.

The Ancient One said:

There are three questions which the MANY ask, but which only the FEW can answer:

Whence comest thou hither?

What dost thou here?

Whither goest thou hence?

Life asks these questions, and Life answers them, for Life and Knowledge are one thing.

"What art *thou?*" man asks of Life. Life answers, "I am all that thou dost know. I am all that thou hast known but hast forgotten. I am all that thou wilt one day learn. Without me thou art not. I am **THYSELF.**"

Hearken to my story, O Learners, for it is yours. I know its beginning, its middle, and its end. You know its middle only, and that but dimly, therefore take heed and learn.

Our Father is Lord of a Garden fair beyond dreams, and there is no strife nor sorrow there, nor any desire of man.

There is a Pool in that Garden with waters clear as crystal, and cold as the snows which crown the Mighty Mountains. Around the Pool are groves of trees with feathery boughs, and soft shining leaves: with golden fruit which the water mirrors with a beauty which makes beauty dim.

But my Brethren and I perceived not these glories because *we* were the Garden and its beauty: no more than the Pool did we thirst; no more than the trees did we sigh for shade; no more than the fruit did we hunger; and no more than the Garden did we crave possessions; because *we were* the Garden and the Pool and the trees and the fruit, and they were ourselves.

But I heard the voice of our Father: "This Garden is thy heritage, my Son," it said; "yet it cannot be thine as thou seest it, because it is not complete. It lacks a portion cut off by the Desert which circles us round about, and this thou must add to it before it becomes thine own. Go into the Wilderness and dwell there, and conquer it with thy Strong Heart; take the Lost Land with thy Strong Hand, then return and receive thy **Kingdom.**"

And I went into the Desert and wandered there a weary time; and I learned hunger and thirst and pain, and forgot that peace had ever been mine. The land was an evil barrenness, yet it was filled with men, and I knew them to be my Brethren, wandering Sons of the Garden. And I looked on my Brothers with wonder, for they seemed blind to their sorrows: they strove not to quit that sterile land, but bound themselves closely to it, piling up mighty works, building cities and cutting roads, till all was one vast maze. Yet of their many roads not one ran straight to any end, but turned and turned again, reaching no goal but Confusion.

And I saw many men with charts and tools in their hands moving

about in anxious circles, searching and digging in the barren soil; and I questioned them, and some answered, "We search for the Lost Land of Knowledge," and those that digged made answer, "We dig for the Well of Truth."

Then it seemed that my Brothers were seeking that which I also sought; and I made myself one of their number to aid them in their task; yet after many days I saw that our work was vain: it made us nothing but deep-worn tracks and pits into which men strayed and stumbled, and from which they escaped with pain and labour, and many escaped not at all.

I quitted this profitless toil, and said, I will find a guide — a man of wisdom; there must be such who will point the way to the Lost Land; and I came to a House of dark red stone, and beheld a Man standing beside the door. The Man wore a robe of crimson, and held a staff of that sacred wood which my Lost Brethren call Authority; and I spoke to him of my quest, and he answered me and said, "My son, have hope; for I hold the keys of the Kingdom of Knowledge, and I guard the Well of Truth."

The Man put a crimson veil on my head, and led me into the House, and down a steep stairway, deep into the bowels of the earth; and he stood me in a vast cavern where shadows clustered thickly: where the ground around was a noisome morass, and pale evil weeds and lichens grew. "Here is the Land of Knowledge," said he, "and there thou wilt find the Well of Truth."

I waded through the dank morass, and drank of the pool which I found there; but its water was muddy and foul, and my thirst was not assuaged.

Then I heard the voice of our Father: "Go search with thy Strong Heart and Strong Hand, my son," it said; and I went forth from the House of Red, and set my face towards the Desert.

Hunger and thirst and weariness assailed me once again, and I looked for a strong and helpful hand to aid me on my way; and I came to a House of rich Purple stone, and spoke to the Man who guarded its door. The Man was robed in Purple robes, and held on high a tall staff of Authority; and he said, "Dost thou thirst for the Water of Truth?, then enter my house and obey my words, for I am the Guardian of Truth and Knowledge."

The man wrapped round me a purple veil, and led me to the door of

a darksome vault, then pointing forward with his staff he commanded my movements, saying: “Take thou seven steps forward, and backward take thou three: take thou seven to thy right hand, and bow at each step thou takest: the Gates of Knowledge are low, very low; so bow thou deeply, very deeply. Return on thy steps again, and do as thou didst before: four steps take thou backward, then lie prostrate upon the floor.”

I did as commanded, then rose and gazed around; and I saw, though dimly through my veil, a vast space girt about with trees: the ground was bright with gorgeous flowers, and before me a sparkling fountain played. I rushed unto the fountain, and drank my fill of its waters, but that which I drank was not water, but warm, spice-charged wine; and I cast the veil from my head, and looked about me again, and I saw that the sward and the flowers and the trees were nothing but painted pictures.

Then I remembered our Father’s commands, and the Garden, and the pool and the trees and the fruit; and I went out from the House of Purple, and faced the desert alone.

Again my heart misgave me and strength deserted my limbs, and I prayed for a wise and powerful guide to aid my faltering steps; and I saw a House of Crystal shining with many jewels, and I begged the Man who stood by the door to help me on my way. The Man was clad in a gorgeous robe of many splendid colours, and he waved me on with a milk-white wand of the Sacred tree, Authority: “My son, come within and rest,” he said, and took me by the hand. “I ask no service but that thou wearest the garments which I shall give thee.”

Then he clothed me in a brilliant robe, and shaded my eyes with strange-hued crystals, and led me gently forward, and left me alone in a wondrous Garden. The place was strange and lovely, and filled with a changeful mystery: endless vistas of trees and flowers extended on every side; and among the vistas were numberless lakes shining in misty beauty; and I leapt towards one with joyful heart to slake my thirst with its waters.

Then I fell to earth bruised and stunned, for a hard, cold barrier had risen before my feet and stayed them in mid-career: the glorious landscape was shattered: nothing appeared around me, but a chaos of shifting colours, and vast mocking forms. I arose, and tore the robe from my body, and cast the crystals in wrath from my eyes; and I saw that I stood in a narrow courtyard with walls all hung with mirrors: the glorious

vistas of waving trees were naught but tangled sickly weeds: the myriad lovely lakes were but some shallow stagnant pools.

Then I heard our Father's voice: "Face the Desert with thy Strong Heart, my son," it said. "Take the Lost Land with thy Strong Hand and thus win into thy Kingdom."

And I went forth into the Desert, and set my heart to conquer it, asking no longer the aid of any man; and I turned my thoughts from the ways of men and my eyes from their foolish works. I travelled the Desert sands alone till hunger had melted away my flesh, and thirst had dried the springs of my life, and death walked close behind me with his hand outstretched to clutch me; but his fingers failed to grasp me though oftentimes they touched me, for again and again, though I fainted and fell, yet again and again did I rise: for again and again in the dews of the night, in a trickle amid the burning sands, in the hollow heart of the Desert Flower, I found water, pure and cold.

But I found not the Land I sought, and the last of my strength was spent: my garments had fallen in shreds, and my sandals had crumbled on my feet; the night of the Desert enfolded me; darkness and silence oppressed me; I tottered and sank to earth bethinking me, Now I die!

And I lay on the sands like one dead, when lo! my outstretched hands touched soft and dewy grass; my nostrils were filled with the odor of flowers, and my ears with the pleasant murmur of waters. And I opened my eyes, and beheld the sun shining with lovely golden radiance and not with the brazen glare of the desert; and I looked about and beheld groves of green trees where birds made music, and golden fruit clustered; and I looked before me, and there, like a diamond in the sunlight, shone the waters of a lovely lake.

I arose and plunged into the Pool, and drank my fill of the pure cold water, and strength returned to my body, and sweet young flesh reclothed my limbs; then I stood naked upon the shore and raised my arms towards the sky and the sun; and gazed on the trees, and the flowers, and the Land, like one newborn to earth.

Then I beheld a vast pillar which stood by the shores of the Pool, and gleamed like a mountain of crystal in the golden light of the sun, and upon each face of the pillar I saw characters graven in the stone; and I drew near and read them, and these were the words which I read:

On that face of the pillar which fronts the Desert I read these words:

WITHOUT IS THE WILDERNESS OF THE MIND OF MAN.

On that face of the pillar which fronts the fertile land I read these words:

HERE LIETH THE OASIS OF KNOWLEDGE.

On that face of the pillar which fronts the lake I read these words:

THE POOL OF THE WATERS OF TRUTH.

And I looked upon the fourth face of the pillar, and lo! my eyes would not serve me, for that face seemed to front all ways at once. And I looked upon the characters which were upon it, but could read these words only:

THE KINGDOM IS NOT YET WON.

And I knew that my toil was not over, for though I was saved yet my Brethren were lost: and I said I will back into the Desert, and will lighten the lot of the Lost Ones with pure cool water from this pool which I have found.

Then I built canals from the Pool into the Desert Land; and I built deep wells in the cities to store the waters of Truth; and I made myself Guardian of the Wells and called on the thirsty to drink, and they came at my call and drank of the water of my wells.

Then I marvelled, for I saw that the thirst of those who drank was not assuaged; and I tasted the water of my own wells and found it warm and salt.

Then I said, I will build a road from the cities unto the Pool, and I will make it easy and smooth to the feet of my Lost Brothers; but when I had built it, the men who essayed to travel it returned back to the cities reviling me for a deceiver. I marvelled at their words, and set out to travel by mine own road, and found that indeed there was no road, for the sands had swallowed it up.

Then wisdom flowered in my heart, and I saw that Knowledge and Truth can never be reached by any easy and pleasant way: they can never be found by any art of man: Truth must be seized by the Strength of the Heart, and Knowledge grasped by the Power of the Hand.

I arose and returned to the Oasis and the Pool; and the eyes of my spirit were opened, and I looked upon the face of the pillar — on that face which fronts all ways at once — and these were the words which were graven there:

THIS IS THE GARDEN OF WISDOM ETERNAL.

And I looked upon the Garden in the golden light of Wisdom; and I know that at last I had entered my Kingdom: the Garden was the Home of Father, Sons, and Brothers, and I WAS NOW ITS LORD.

Consider my story, O Learners, for it is yours. You are Sons of the Garden and Dwellers in the Wilderness: you are heirs to the Garden, but not until you conquer the Wilderness will you find the Lost Land and receive your heritage.

With your own courage you must brave the Desert. By your own strength you must pass through its perils. Hunger and thirst must not daunt you. Danger and pain and weariness must not stay your steps. If you fall you must rise unaided and press forward with no thought of rest; because there is no rest, nor help, nor any surcease from struggle in *The Wilderness of the Mind of Man*.

Only beyond that Desert, when you rest mid the trees and the flowers
With the wingéd music filling the air, and the zephyr cooling your
brows —

Only when Kingship has crowned your toil, and the pangs of desire
are o'er

Only then may you drink from the Pool of Truth, and rest and thirst
no more.

HOW UNIFY THE WORLD'S RELIGIONS?

J. EMORY CLAPP

National President, American Section, The Theosophical Society (Point Loma)

Address delivered at the Parliament of Religions,
Chicago, Ills., U. S. A., Monday afternoon, September 11, 1933

BROTHERS all, without distinction of race, color, or creed: It is a most inspiring thing to be present at a meeting such as this, in which members of all races and creeds are met together in the common interest of the weal of humanity. May we not hope that this effort will have a very real effect upon the people of the earth, and be helpful, at least in some degree, in solving the perplexing problems which we are all facing?

I come to you this afternoon, not as a teacher, not as a wise sage, but simply as a student of Theosophy, and I offer these sublime doctrines as I understand them with my imperfect human apprehension. Nor do I

ask you to receive them as the voice of authority, for the only authority we recognise is the voice of the Divine Self, our inner god.

My subject, 'How Unify the World's Religions?' may at first sight appear to be a very difficult one, or at least one hard of solution. But I hope to show you that if approached in the right spirit, it is really not as complex as it seems, and should, in fact, prove to be very simple. All that we have to do is to observe that old, old admonition which we commonly speak of as the 'Golden Rule'; and I should here like to call your attention to the fact that this is not of Christian origin, nor can it be said to be the property of any one religion, as we find it in varying forms in several of the great religions. We of the Occident are accustomed to state it thus: "Do unto others as you would have them do unto you." Confucius stated it in nearly the same words, but with a negative rather than a positive expression when he said: "Let us not do unto others that which we would not wish them to do unto us," and I recently noticed a quotation in one of the daily papers from some unspecified Oriental source, which to my mind expressed it more fully and more beautifully than is done in the preceding examples. It was stated thus: "With pure thoughts and fulness of Love, I will do towards others what I do for myself. The practice of religion involves, as a first principle, a loving, compassionate heart for all creatures."

Now to apply the Golden Rule to the subject in hand — the attempt to unify the great religions. How shall we put the Golden Rule into practice? Will it not be, first, by extending the same respect to other religions that we would ask these others to hold for our own religion or belief; and second, to approach the consideration and study of any other religion sympathetically, with a desire to find the good points — or in other words, the teachings of which we approve, and which we believe to be in harmony with the essentials of our own faith? Let us not approach the matter with the idea or desire of finding something which we can criticize. Let us remember that there are other human beings who reverence these teachings, and let us try to understand them, and look at them from the point of view of their protagonists.

Our endeavor should be, in the second place, to follow the teachings of Jesus of Nazareth: "Except ye become as little children, ye shall not enter into the kingdom of heaven." What did Jesus mean by making this statement? It seems quite obvious that he was not referring to the physical body, and it seems equally obvious that his statement should be

applied to the intellectual side of man's nature. Applying it in this way, and observing the intellectual attitude of the child, we see that the child is first eager to learn, eager to know more about the meaning of everything which he perceives with his five senses, and second, that the child is not held back from an unprejudiced consideration of the teachings given to him by preconceived opinion, for he is as yet too young to have formed, or to hold, such preconceived opinions; he can therefore consider everything with an open mind.

This last consideration, I take it, will be the more difficult one for most of us, because we were taught to believe certain things in the formative period of youth, and, having held to the belief in these things throughout our lives up to the present time, it is difficult for us to realize that some of these beliefs or doctrines may not appear to be of the nature of truth or reality to those to whom they are new, and in fact may appear to be even quite illogical and contrary to common sense. There is one tendency of the human mind which careful study will show us to be almost universal, and that is the tendency to look upon anything in the nature of a new teaching, or a teaching that is unfamiliar to us, with distrust, which distrust is due merely to the fact that it is strange.

In order to consider the problem of how to unify the world's religions in a logical way, it is necessary that we should first agree upon the meaning of the word 'religion.' I should like to present for your consideration two definitions of the word *religion* which have been given to Theosophists by their Teachers; and of course you understand that, as I am speaking as the representative of the Theosophical Society, I will naturally present for your consideration the Theosophical viewpoint. The first was given to us by the Founder of the Theosophical Society, H. P. Blavatsky, as follows:

A religion, in the true and only correct sense, is a bond uniting men together — not a particular set of dogmas or beliefs. Now Religion, *per se*, in its widest meaning, is that which binds not only ALL MEN, but also all BEINGS, and all THINGS in the entire Universe into one grand whole. This is our Theosophical definition of Religion.

The second definition to which I wish to call your attention was given us by one of our recent teachers, and is much more comprehensive, and of a more philosophic nature. I quote:

Religion is an operation of the human spiritual mind in its endeavor to understand not only the why and how of things, but comprising in addition a yearning and

striving towards self-conscious union with the Divine *All*, and an endlessly growing self-conscious identification with the Cosmic Divine-spiritual Realities.

Viewed from the standpoint of these two definitions we see that true religion must necessarily be logical and consistent, and appeal to the highest reaches of human nature, *i. e.*, to the Divine Spark in man. As there can be but one Truth, so therefore we see that there can be but one true religion. That is not to say, however, that every religion worthy of the name may not possess at least a fragment of the one Truth. And permit me, my brothers, to say that it seems to me equally probable, and I might even say inevitable, that no one religion will contain all of Truth, at least, no one revealed religion.

Furthermore, I should like to call your attention to the fact that there are three avenues to Truth recognised by and inhering in our human consciousness, of which religion is only one, the other two being science and philosophy. Of these two, science deals with facts in Nature which are secured by the observation of natural phenomena, coupled with an analysis and organization of the knowledge thus acquired, into more or less logical theories to account for these phenomena; while philosophy deals rather with the intellectual consideration of the whys and wherefores of life, appealing more to the reasoning faculties than to knowledge based upon phenomenal manifestation.

Theosophy, which from the derivation of the word may be considered Divine Wisdom, recognises that the perception and recognition of Truth requires the exercise of all three of these modes or avenues of consciousness. Furthermore, in its true and deeper sense Theosophy cannot be the formulation of truths secured by imperfect human beings through these three avenues of consciousness, but must rather be the source from which mankind may secure, or has secured, such fragments of Truth as are now its common heritage; and it is in that sense that I speak of it this afternoon. Considered from this standpoint, it is quite obvious, it seems to me, that a study of Theosophy will not only be helpful in this attempt to unify the world's religions, but may be considered an absolute necessity.

In this connexion, I should like to call attention to the fact that during the World-War an essay by Pastor Thomsen, now of Hamburg, first appeared in the Schleswig-Holstein Church Paper and was later published as a pamphlet under the title 'Theosophy, the Bridge to Eternity.' In this an appeal is made to study Theosophy as a means of con-

tacting the deeper, esoteric meaning in every religion, thus solving, or helping to solve, the problems of life. If we will do this, we shall see that under a common symbology, and by the use of parables and allegories, the more essential truths needed for mankind in his evolutionary progress will be found in each one of the great religions. Also, that in each great religion certain aspects of Truth, which were particularly needed at that time by the people to whom the religion was given, were emphasized. It will also be found that the nearer we can approach the source of the various religions the more simple and understandable do the teachings become, and the less of creed and dogma will they contain.

H. P. Blavatsky called attention to the fact, as shown by the following quotation:

Theosophists know that the deeper one penetrates into the meaning of the dogmas and ceremonies of all religions, the greater becomes their apparent underlying similarity, until finally a perception of their fundamental unity is reached. This common ground is no other than Theosophy, the Secret Doctrine of the ages.

Again she said:

Theosophy is the thread which passes through and strings together all the ancient philosophies and religious systems; and what is more, it reconciles and explains them.

Another Theosophical teacher, William Q. Judge, expressed the relation of Theosophy to Religion in the following beautiful and inspiring words:

Theosophy is the divine soul of religion, the one key to all Bibles, the riddle reader of all mysteries, the consoler of the heart weary, the benign comforter in sorrow, the alleviator of social miseries. You can preach its message before any audience in the world. It is the one Pentecostal voice that all can understand.

The basic conception of Theosophy is the universal brotherhood of all creatures, based upon the unity of all that is. This conception, together with its natural consequences, is expressed by another one of our teachers in the following inspiring statement:

Brotherhood is based on Nature's fundamental law, that no entity lives unto itself absolutely. It cannot; in trying to violate this fundamental law, it perishes in time. But when we live unto others rather than our own self, we expand constantly, our consciousness reaches for ever and for evermore outward to greater spaces, and finds its play in ever wider and grander fields. Living unto others is the way to grow great.

And again:

A man is not great merely because he thinks lofty thoughts, or has sublime ideas,

or is a preacher of beautiful phrases. He is great only in proportion as these, through his own deliberate will, show themselves in his life. Doing this he becomes the light, lighting not merely his own pathway on the pilgrimage of eternity, but becoming a light unto his fellows, an inspiration to their hearts, and a teacher by example as well as by precept of their minds.

A comparison of the chief teachings of the great religions with the basic teachings of Theosophy, and with each other, is quite illuminating and illustrates the matter under consideration. Let us consider a few of these teachings as expressed in some of the great religions. One of the most important of these is the *Unity of Being*. In *The Secret Doctrine* this is expressed by the One Absolute Life, or Being, which is spoken of in Theosophy as the Unmanifested Logos; in the Christian New Testament, in *The Gospel according to St. John*, as the 'Word,' and in the Hindû Upanishads as 'Brahman.' From this proceeds manifestation, and this is stated in the *Bhagavad-Gîtâ* as follows:

I established this whole universe with a single portion of myself, *and remain separate*.— chapter x

And again:

But there is another spirit designated as the Supreme Spirit — Paramâtma — which permeates and sustains the three worlds. As I am above the divisible, and also superior to the indivisible, therefore, both in the world and in the *Vedas* am I known as the Supreme Spirit.— chapter xv

The same idea is expressed in the Christian New Testament, as follows:

For in him we live, and move, and have our being; as certain also of your own poets [e. g., Aratus, and Cleanthes] have said, For we are also his offspring.

— *Acts*, xvii, 28

For of him, and through him, and unto him, are all things.— *Rom.*, xi, 36

The very fact which we are trying to demonstrate, *i. e.*, that the same teachings are given in all true religions, is expressed in the *Bhagavad-Gîtâ* of the Hindûs, as follows, when Krishna says: "In whatever form a devotee desires with faith to worship, it is I alone who inspire him with constancy therein," and the Christian disciple, Peter, made the following statement, as recorded in the *Book of Acts*: "Of a truth I perceive that God is no respecter of persons; but in every nation he that feareth him, and worketh righteousness, is accepted with him."

What a pity it is, brothers, that all Christians have not paid more

attention to these words of Peter! Again, we find that Jesus said to his disciples, as recorded in *The Gospel according to St. John*, that there is but one essential: love of God and love of man, which in the true sense makes this love all-inclusive. The great religious teacher, Gautama the Buddha, expressed the same sentiment when he said: "Hatred does not cease at any time by hatred; hatred ceases by love; this is an old rule." And we find that H. P. Blavatsky, in her first great work, *Isis Unveiled*, published about 1878, makes the following statement:

There is not a religion, whether Christian or heathen, that is not firmly built upon the rock of ages — God and immortal spirit.

Thus we find that Theosophy helps us to understand that all religions have the same goal in view. This understanding will tend to remove the prejudices that spring up in the various religions, and help to foster a spirit of unity among all who are striving towards the same great goal.

In all ages spiritual truths have of necessity been given out in more or less veiled form. It was impossible for the Great Teachers to give out the pure unveiled spiritual truths, because mankind generally would not understand the meaning of these truths, and furthermore, the selfishness of priests and minor teachers has always tended to degrade the teaching, and make changes which would destroy the real meaning. By giving these teachings in a veiled manner, this was less likely to occur, and by using the same veils and symbols it would always be possible for the true student and initiate to find the hidden meaning and demonstrate the truth of the ancient teachings.

Jesus himself, as well as Paul and others of the Apostles, made reference to this dual method of teaching. Jesus stated that he taught the multitudes in parable, but that to his disciples he taught the "mysteries of the kingdom of heaven." Paul spoke of the teachings which he gave to the general public as being "milk for babes," while he referred to the teachings given to the disciples as the "meat for strong men," necessary for those advanced on the pathway to eternal life.

A study of known history brings out the fact that all down through the ages there was an outer, or exoteric, teaching for the masses, and a deeper, inner, or esoteric, teaching for the true seekers after Truth — those who were in real earnest. The most notable examples, perhaps, were the Mysteries of Eleusis and Samothrace, whose teachings were

recognised by the greatest men of the time, who left a record of these in their writings. These great men were themselves Initiates, and included such notable philosophers as Plato, Pythagoras, Apollonius of Tyana, Empedocles, and others. Perhaps it will be of interest to quote from some of the great men of that day regarding their opinion of the Mysteries.

Cicero wrote: "When these Mysteries are explained we prove not to have learned so much of the nature of the gods, as of the things themselves, or the truths we stand in need of." Plutarch affirms that in the Mysteries the first cause of all things is communicated. One of the Christian fathers, Clemens Alexandrinus, wrote: "The doctrines delivered in the Greater Mysteries are concerning the Universe. Here all instruction ends. *Things are seen as they are*; and Nature and the things of Nature are given to be comprehended." Plato said: "The design of the Mysteries is to lead us back to the perfection from which, as a principle, we first made our descent." It is stated that the *Book of Job* is a book of initiation, and Job himself declared, as the climax of the drama was reached, "I had heard of thee by the hearing of the ear; but now mine eye seeth thee."

Philo says of the Jewish teachers: "They changed the words and precepts of wisdom into allegories *after the custom of their ancestors*." In the ancient Egyptian ritual we read: "This book is the greatest of all mysteries. Do not let the eye of anyone see it; that is detestable. Learn it. Hide it." And we could go on indefinitely, referring to the Mysteries of India, Persia, and other countries.

There are two teachings which appear in practically all of the great religions, but which have been overlooked or disregarded, most unfortunately, by some of the orthodox creeds of the Occident, although very plainly taught by Jesus of Nazareth. The first of these is the doctrine of Reincarnation, which is plainly taught in most of the other great religions, and which was a common teaching, accepted by many of the sects prevalent at the time Jesus taught. Jesus declared that John the Baptist was Elias "which was for to come"—in other words, that John the Baptist was the reincarnation of Elias. And he stated his own previous existence when he said: "Before Abraham was, I am." Many other passages in the Bible plainly refer to this teaching.

The doctrine of Karman, the Law of Consequences, was emphasized both by Jesus and Paul. The former said: "By their fruits ye

shall know them"; and also, "Do men gather grapes of thorns, or figs of thistles?" (*Matt.*, vii, 16) Paul said: "Whatsoever a man soweth, that shall he also reap." The Western world today badly needs these teachings, and the realization that we cannot harm another without ourselves suffering the consequences of such an act, and that in such an attempt we harm ourselves far more than the object of our hatred.

These teachings, combined with the Law of Brotherhood, which is based on Universal Unity and Causation, will greatly help us to live better lives, and to express in our lives, both by precept and example, the beautiful teaching of Brotherhood. Understanding these teachings, we shall have no difficulty in unifying the world's religions.

In conclusion, I should like to repeat the following inspiring peroration to an address made by William Q. Judge, who represented the Theosophical Society at the first Parliament of Religions at the World's Exposition held here in Chicago in 1893:

Live with one another as brothers; for the misery and the trouble of the world are of more importance than all the scientific progress that can be imagined. I conclude by calling upon you, by all that humanity holds dear, to remember what I say, and whether Christians, Atheists, Jews, Pagans, Heathen, or Theosophists, try to practise Universal Brotherhood, which is the universal duty of all men.

STUDIES IN ORPHISM*

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II. THE TEACHINGS OF ORPHISM

THE IDEAL WORLD

1. INTRODUCTION

THERE is good reason for believing that the legend of Orpheus in Mythology grew around and partially obscured the actual life of a great prehistoric religious reformer in Greece, of whom Thomas Taylor, the Platonist, says:

This alone can be depended on, from general assent, that there formerly lived a person named Orpheus, who was the founder of theology among the Greeks, the institutor of their life and morals, the first of prophets, and the prince of poets — who taught them their Sacred Rites and Mysteries, and from whose wisdom, as from a

*Reprinted from THE THEOSOPHICAL PATH, Vol. II, No. 5, May, 1912.

perennial and abundant fountain, the divine Muse of Homer and the sublime theology of Pythagoras and Plato flowed.¹

No less than six different men of the name of Orpheus were known to antiquity, but the original Orpheus, the founder of those Mysteries which ensure the salvation of mankind, the interpreter of the gods, who revealed the knowledge of Things Divine, poet, musician, theologian and mystagogue, seems to have lived about the middle of the thirteenth century before Jesus Christ. However, historic Orphism, which was evolved from the teachings of Orpheus, comes to the forefront in Greek religious life particularly during two widely separated ages, namely, during the sixth century before Jesus and during the first four centuries of the Christian era. It is noteworthy that both of these periods witnessed a religious activity and awakening, extending throughout the civilized world — an activity which ran its course not only in Greece and Rome but in Egypt, Persia, India, and China as well. Our principal sources of knowledge in regard to the earlier Revival of the sixth and fifth centuries are Empedocles, Pindar, Euripides, Aristophanes, Plato, and the Orphic Tablets, which date from the fourth century B. C. Our principal authorities for the later period are the Neo-Platonists, and their opponents, the early Christian Fathers.

The history of Pythagoreanism both in its earlier and later forms, and of later Platonism, is intimately connected with that of Orphism, for in the words of Proclus:

The whole theology of the Greeks is the child of Orphic mystagogy. Aglaophamus first taught Pythagoras the Mystic Rites of the Gods, and next Plato received the perfect knowledge of such things from the Pythagorean and Orphic writings.²

Three figures stand out during the earlier period of historic Orphism as of especial importance, namely, the Cretan prophet, Epimenides, guardian of the Dictæan Cave on Mount Ida, wherein, tradition says, the infant Zeus was nurtured; the philosopher, Pherecydes; and the scholar Onamacritus. Of Greek cities, Athens and Croton seem to have been among the most important centers of this earlier Orphism. Pherecydes, who is reported to have been an early teacher of Pythagoras, is represented as the first literary editor of the Orphic Sacred Writings. That he was well-fitted for the task is attested by the statement that he had been initiated into the Mysteries of the Phoenicians, Chaldaeans,

1. Thomas Taylor, *The Mystical Hymns of Orpheus*.

2. Quoted by Lobeck, *Aglaophamus*, p. 723.

and Egyptians, as well as into those of Orpheus. Furthermore, it is known that he taught the complete immortality of the human soul, its eternity, and its rebirth, in his great prose work on Theology, which unfortunately is no longer extant, except for a few fragments. Onamarcritus, one of the scholars connected with the court of Peisistratos, tyrant of Athens (560-527 B. C.), is also mentioned as an editor of the Orphic Literature and it was probably largely due to his influence that the rites of the Eleusinian Mysteries were modified so as to include the Orphic Mystery-Myth of Dionysus-Zagreus, who was identified with the Eleusinian divinity Iacchos, the holy babe. Several other Orphic editors, like Zopyrus of Heraclea and Orpheus of Croton (not to be confused with the original Orpheus), are little more than names to us. In the fifth century before Christ vast quantities of Orphic literature were in circulation at Athens, and we know the titles of about forty different works which are no longer extant. We possess only the *Orphic Hymns*, a collection of more than eighty invocations used in the Mysteries; the *Lithica*, a poem on the Nature and Engraving of Precious Stones for use as Talismans; the Orphic *Argonautica*, a poem reciting the story of Orpheus's connexion with the Argonautic Expedition; and various miscellaneous fragments. Orthodox scholarship dates all these, in their present form at least, during the later period of historic Orphism, although a just reaction in favor of the recognition that their subject-matter goes back to very early pre-Christian times is already noticeable.

The real Greek religion is not, as is commonly supposed, to be found only in the mythology of the anthropomorphic Olympians, but (using the term pantheism in its true sense) in the pantheistic worship of the trinity consisting of Zeus, (a divinity quite distinct from the Ruler of the Homeric Olympus) and the two many-named Chthonic or Earth Gods, the gods of life, death, and rebirth: namely, (1) Zeus, the Divine All-Father; (2) Dionysus, the divine son, both mortal and immortal, the God-man, the Higher Self in man, the only begotten, the first born, Zagreus, the mighty horned hunter, Iacchos, the holy babe, Bromios, the spirit of entheastic inspiration, the God-within, the spiritual sun, the reborn Savior, the twice born, the fire born, dithyrambos, He of the Twin Portals, the reascended soul or perfected man, He of Many Names and Many Forms; and (3) Rhea-Demeter-Kore, the divine mother-wife-sister-daughter, the Earth Goddess, Persephone, the virgin queen of the dead, and Phersephassa, the risen dove-queen. Side by side with

true Orphism were many false and counterfeit cults, which always spring into being whenever truth is proclaimed anew, inasmuch as falsehood ever seeks to cloak itself under a more or less formal semblance of truth. We are concerned with the true Orphism and consequently shall not deal with its perversions.

The entire mythology of Orpheus is intentionally symbolical and allegorical, as is distinctly stated by the ancients in the following quotations. Proclus says:

The Orphic method aimed at revealing divine things by means of symbols, a method characteristic of all writers on divine wisdom (*theomythia*).³

Plutarch also testifies to the same fact:

It is clear from the Orphic poems and the Egyptian and Phrygian writings that the archaic natural science both among the Greeks and non-Greeks was for the most part hidden in myths—a secret and mysterious theology containing an allegorical and hidden meaning.⁴

This was also known to the Early Christian Fathers, for Clement of Alexandria says:

All who have referred to divine things, whether Greeks or non-Greeks, have veiled the primal principle and have spoken the truth in riddles, symbols, allegories, metaphors, and similar figures.⁵

And the author of the *Clementine Recognitions* declares:

All the literature among the Greeks dealing with the origin of antiquity is based—primarily upon Orpheus and Hesiod. Their writings, when considered from the standpoint of interpretation, are found to be twofold, literal and allegorical. While the people at large have clung to the literal interpretation, all the eloquence of the philosophers and of the learned is spent in admiration for the allegorical sense.⁶

In the face of such explicit testimony both from Pagan and Christian authors, no one who is open-minded can deny that the Orphic myths, to be rightly comprehended, must be interpreted allegorically.

Our clearest knowledge in regard to the allegorical interpretation of Orphic theology in antiquity is gained from the Neo-Platonists. One of the chief points to bear in mind is that Orphic cosmogony represents the successive stages in the growth of the universe under the figure of successive dynasties of gods, the earlier dynasty being dethroned and supplanted by the later. Also number-symbolology lies at the basis of the

3. Proclus, *Theol.*, I, iv, 9.

4. Plutarch, *De Daed.*, Frag. IX, i, 754.

5. Clemens Alexandrinus, *Stromata*, v, 4. 6. *Clementine Recognitions*, x, 30.

whole system, the key-numbers being 1, 2, 3, 4, 5, 7, 10, and 12, while a triadic structure is everywhere evident. For example, there are two Diacosms or Worlds — the Ideal or Noumenal World and the Material or Phenomenal World; seven orders of Heavenly Hierarchies, each consisting of a triad of Essence (Father, the creative powers), Life (Mother, the preservative powers), and Intelligence (Son, the regenerative powers), but all in their entirety emanations from the Unknown Absolute Deity. The Orphic teachings in their purity are identical with the teachings of the Wisdom-Religion, the parent 'Secret Doctrine' underlying all historical religious systems, and they can be understood only with the help of the keys given by the Theosophical Leaders. For further explanation the student should consult H. P. Blavatsky's masterpiece, *The Secret Doctrine*, upon which the following brief exposition is based.

2. THE ABSOLUTE DEITY

The ultimate postulate of Orphism is well expressed by Thomas Taylor as a belief

in one First (or rather Causeless) Cause of all things, whose nature is so immensely transcendent that it is even super-essential (that is, beyond and above the realm of existence) and that in consequence of this it cannot properly either be named, or spoken of, or conceived by opinion or be known or perceived by any being.⁷

This immense principle is superior even to Being itself; exempt from the whole of things, of which it is nevertheless ineffably the source.⁸

All things, says an Orphic verse, are contained in "the single power and the single might of the One Deity, whom no man sees."⁹ So Maximus Tyrius states:

There is one Deity, the King and Father of all, and many gods, sons of the Deity, ruling together with him. This the Greek says, the barbarian says, the inhabitant of the continent and he who dwells near the sea, the wise and the unwise.¹⁰

So also Aristotle:

Our ancestors and men of great antiquity have bequeathed to us a tradition, involved in fable, that the first principles are gods and that the Deity includes the whole of nature.¹¹

7. Thomas Taylor, *Miscellanies in Prose and Verse*, 1st ed. 1805, p. 26.

8. Thomas Taylor, *Mystical Hymns of Orpheus*.

9. Quoted by Lobeck, *Aglaophamus*, p. 479.

10. Maximus Tyrius, *Dissertation on What God is According to Plato*.

11. Aristotle, *Metaphysics*, xii, 8.

The Absolute Deity is named by Orphism "The Thrice Unknown Darkness" (a term adopted from the Egyptians), and Chronos or Unaging Time, Endless Duration. Since the Ineffable is of necessity unknowable, Orphic speculation turns to the dual principles of primordial spirit and matter, previous to the manifestation of which Orpheus declares "the Boundless unweariedly revolved in a circle."¹²

3. AETHER, CHAOS, AND PHANES

The two principles immediately posterior to "the Thrice Unknown Darkness" are called in Orphic teaching Aether (the Father, spirit), and Chaos (the Mother, the World-stuff, primordial matter). Manifested life is itself the offspring of these two principles and is represented by the symbol of the silvery-white Mundane Egg, from which leaps forth in gleaming glory Phanes-Protogonos, the First-Born, the first Logos or cosmogonic Eros, love divine which fashions the world, male-female, the triple dragon-formed God with four eyes gazing everywhere, and golden wings with which he travels in every direction, known also as Metis and Ericapaeus. Phanes, the "Appearer," as the name signifies, is the first of the five successive Cosmic Rulers, the Parent of the gods and the creator and ruler of the ideal world, the prototype and ancestor of Zeus, the demiurge or creator and ruler of the material world. With Phanes, Night is associated, as both mother and wife. These Orphic teachings are outlined in the following quotations. The *Clementine Recognitions* declare:

It is Orpheus, indeed, who proclaims that Chaos first existed, eternal, uncreate, neither darkness nor light, nor moist nor dry, nor hot nor cold, but all things intermingled ever in one unformed mass; and that at length, in the shape of a huge egg, it brought forth and produced from itself a twofold form, wrought out in the course of immense cycles of time, male-female, a form made concrete by the admixture of opposites — the principle of all things, which arose from matter and which coming forth, effected a separation of the four elements and made heaven of the two elements which are first (fire and air), and earth of the other two (water and earth); and from them he says that all things now are born and produced by a mutual participation in them.¹³

Proclus states that

The Egg was produced by Aether and Chaos, Aether fashioning it according to limit, for it is the root of all; and Chaos according to infinity, for it has no bounds.¹⁴

12. Quoted by Proclus, *On the Cratylus of Plato*, p. 78.

13. *Clementine Recognitions*, x, 30.

14. Proclus, *On the Timaeus of Plato*, I, 138.

Furthermore, Lactantius tells us that Orpheus called the first-born Phanes, or "the Appearer, because while as yet there was naught He first appeared and came forth from the Infinite."¹⁵ "None could look upon Phanes except Holy Night alone. The others — all amazed — beheld the sudden light in space, such radiance shone forth from Phanes."¹⁶ "This power Orpheus calls Phanes because upon its appearance the whole universe shone forth by the light of fire — the most glorious of the elements."¹⁷

And its names Orpheus heard in a prophetic vision and proclaimed them to be Metis, Phanes, and Ericapaeus, which interpreted signify Forethought (Will), Light, and Life (the Light-giver); and he added that these three divine powers . . . are but the single power and might of the one Deity, whom no man sees — and by whose power all things come into being, both the immaterial principles and the sun and moon and all the stars.¹⁸

4. URANUS AND GAEA

As Phanes carries within him the ideal germ of all things divine and earthly, with the help of his mother and wife Night he generates the ideal world, and from the upper part of the broken shell of the Mundane Egg he forms Uranus or Heaven, his Son, the second Logos or the second of the successive Cosmic Rulers; and from the lower part of the broken shell Gaea or Earth, wife of Uranus. This is referred to by Aristophanes in the following:

There was Chaos at first, and Darkness and Night, and Tartarus, vasty and dismal;
But the Earth was not there, nor the Sky nor the Air, till at length in the bosom
abysmal
Of Darkness an Egg, from the whirlwind conceived, was laid by the sable-plumed
Night.
And out of that Egg, as the seasons revolved, sprang Love,¹⁹ the entrancing, the
bright,
Love brilliant and bold with his pinions of gold, like a whirlwind, refulgent, and
sparkling,
Then all things commingling together in love, there arose the fair Earth and the Sky
And the limitless Sea; and the race of the gods, the Blessed, who never shall die.²⁰

15. Lactantius, *Institutiones*, I, 5.

16. Orphic Verse, quoted by Hermeas, *In Phaedrum*, p. 141.

17. Clemens Alexandrinus, quoted by Lobeck, *Aglaophamus*, p. 478.

18. Malela, iv, 31; Cedrenus, i, 57, 84, quoted by Lobeck, *Aglaophamus*, pp. 479-80.

19. That is, Cosmogonic Eros or Phanes.

20. Aristophanes, *Birds*, 693-703 (Rogers).

5. KRONOS AND RHEA

The offspring of Heaven and Earth were first, the three Fates or Karmic Powers, the three Hecatoncheires, the monsters with a hundred hands, and the three Cyclopes, both of which groups represent cosmic builders among the celestial hierarchies, who, because of a premature revolt against their father Uranus were hurled into the lowermost depths of Tartarus. The twelve Titans, as a second progeny, were then brought forth by Earth in secret for the purpose of avenging their defeated brethren. The second revolt, that of the Titans, proved successful. Uranus was dethroned, and after a short reign of the Titan Ophion and his wife Eurynomê, the daughter of Ocean, the scepter passed to Kronos, the third of the successive cosmic rulers, and his wife Rhea, the Great Goddess, Mother of the Olympian Gods. This part of the Orphic cosmogony is referred to by Apollonius Rhodius in the following verses:

And lo, with his lyre upheld
 In his left hand, Orpheus arose, and the fountain of song upwelled.
 And he sang how in the beginning the Earth and the Heaven and the Sea,
 In the selfsame form were blended together in unity;
 And he sang of the goal of the course in the firmament fixed evermore
 For the stars and the moon, and the printless paths of the journeying sun,
 And how the mountains arose, how rivers that babbling run,
 They and their nymphs were born, and whatso moveth on Earth;
 And he sang how Ophion at first, and Eurynomê, Ocean's birth,
 In lordship of all things sat on Olympus' snow-crowned height;
 And how Ophion must yield unto Kronos' hands and his might;
 And she unto Rhea, and into the Ocean's waves plunged they.
 O'er the blessed Titan Gods these twain for a space held sway,
 While Zeus as yet was a child, while yet as a child he thought,
 And dwelt in the Cave Dictæan, while yet the time was not
 When the Earth-born Cyclops the thunderbolt's strength to his hands should give,
 Even thunder and lightning; by these doth Zeus his glory receive.
 Low murmured the lyre and slept, and the voice divine was still.²¹

6. ZEUS

As Phanes, the first of the cosmic rulers, is the creator of the ideal world and the ancestor of the gods, so Zeus, the fourth in the chain of succession, the last power in the ideal world, is the creator of the material world, the demiurge, and the Father both of gods and men. Consequently Orphic myth represents Zeus as having swallowed or ab-

21. Apollonius Rhodius, *Argonautica*, I, 494-512 (Way's Translation).

sorbed his great prototype, Phanes. Also, Zeus is said to have dethroned his father, Kronos, from whose blood sprang into being the race of giants, who in the early years of Zeus' reign instituted an unsuccessful revolt against the newly-established power. The wife of Zeus in Orphic mythology is Demeter-Kore (the great Earth-goddess, as Mother and Maid) rather than Hera, the Queen of the Sky, as in the common myth.

Modern scholars and commentators frequently confuse Phanes and Zeus with each other as well as with the Absolute Deity of Orphism; but the following Orphic Hymns refer to Zeus, the demiurge, rather than to Phanes, the first Logos, or Chronos, the "Thrice Unknown Darkness," the Absolute Deity. However in this connexion the following explanation of Thomas Taylor must not be overlooked:

According to this theology, each of the gods is in all, and all are in each, being ineffably united to each other and the highest Deity, because each being a super-essential unity their conjunction with each other is a union of unities. And hence it is by no means wonderful that each is celebrated as all.²²

Therefore the various goddesses are often represented as mother, wife, and sister of the same god, and sometimes even as his daughter. Thus an Orphic verse declares: "The Goddess who was Rhea, when she bore Zeus became Demeter."

Now rather turn the depths of thine own heart
 Unto the place where light and knowledge dwell,
 Take thou the Word Divine to guide thy steps
 And walking well in the straight and certain path,
 Look to the One and Universal King —
 One, self-begotten, and the Only One,
 Of whom all things and we ourselves are sprung.
 All things are open to His piercing gaze,
 While He Himself is still invisible.
 Present in all his works, though still unseen.

And other than the great King there is none.
 The clouds for ever settle round His throne
 And mortal eyeballs in mere mortal eyes
 Are weak, to see Zeus reigning over all.²³

There is one Zeus, one Sun, one Underworld,
 One Dionysus, one lone God in all.²³

22. Thomas Taylor, *Mystical Hymns of Orpheus*.

23. Orphic Hymn, quoted by Justin Martyr, *Exhortation*, xv.

Zeus was the first, Zeus of the bright thunderbolt shall be the last of things; Zeus is the head; Zeus fills the midst; all things are framed of Zeus; Zeus is the foundation both of earth and of starry heaven; Zeus is male; Zeus the divine feminine; Zeus is the breath of all things; Zeus the rushing of irresistible fire; Zeus the great fountain of the deep; Zeus the sun and moon; Zeus is the king; Zeus the leader of all; for he of the bright thunderbolt, after hiding all within him, brought them forth again from his sacred bosom to the gladsome day, doing ever wondrously.²⁴

For all things lie within the mighty frame of Zeus. His head and fair countenance is to be beheld in the gleaming sky, adorned with the golden rays of the glittering stars, as with beautiful hair; and on either hand are the two golden horns as of a bull, the East and the West, the paths of the heavenly gods; and his eyes are the sun and the shining moon; his royal ear that tells him all things truly is the imperishable ether, wherethrough he hears and hath intelligence of all things. Nor is there any voice or any cry or noise or rumor, which escapes the ear of all-prevailing Zeus, the son of Kronos. Thus immortal is his head and faculty of thought, and his body all radiant, immeasurable, imperishable, unshakable, of mighty limbs and all-subduing, is thus framed; the shoulders and the chest and broad back of the god is the wide circumambient air, and he hath wings, moreover, whereon he is wafted every way, and his holy abdomen is the earth, mother of all things, and the lofty mountain-tops; and the girdle of his middle is the swelling and sounding sea. And the ground he treads are the inward parts of earth firmly rooted beneath gloomy Tartarus. Hiding all these things within him, he brings them forth again into the gladsome light, doing ever wondrously."²⁵

Zeus is the great God who is all things that be —
The Pillar of the Earth and starry Sky,
The Depth of the great Deep; the Sun, the Moon,
The Word which Makes, the all-compelling Love —
For all things lie within his formless frame.²⁶

The following hymn by Cleanthes, though written by a Stoic, is thoroughly in the Orphic spirit:

Greatest of the gods, God with many names,
God ever-ruling, and ruling all things!
Zeus, origin of Nature, governing the universe by law,
All hail! For it is right for mortals to address thee;
For we are thy offspring, and we alone of all
That live and creep on earth have the power of imitative speech.
Therefore will I praise thee, and hymn forever thy power.
Thee the wide heaven, which surrounds the earth, obeys;
Following where thou wilt, willingly obeying thy law.

24. Orphic Hymn (Campbell's Translation).

25. Orphic Hymn (Campbell's Translation).

26. Orphic Hymn (Translation by Lewis Morris).

Thou holdest at thy service, in thy mighty hands,
 The two-edged, flaming, immortal thunderbolt,
 Before whose flash all nature trembles.
 Thou rulest in the common reason, which goes through all,
 And appears mingled in all things, great or small,
 Which filling all nature, is king of all existences.
 Nor without thee, O Deity, does anything happen in the world,
 From the divine ethereal pole to the great ocean,
 Except only the evil preferred by the senseless wicked.
 But thou also art able to bring to order that which is chaotic,
 Giving form to what is formless, and making the discordant friendly,
 So reducing all variety to unity, and making good out of evil.
 Thus throughout nature is one great law
 Which only the wicked seek to disobey —
 Poor fools! who long for happiness,
 But will not see nor hear the divine commands.
 In frenzy blind they stray away from good,
 By thirst of glory tempted, or sordid avarice,
 Or pleasures sensual, and joys that pall.
 But do thou, ● Zeus, all-bestower, cloud-compeller!
 Ruler of thunder! guard men from sad error.
 Father! dispel the clouds of the soul, and let us follow
 The laws of thy great and just reign!
 That we may be honored, let us honor thee again,
 Chanting thy great deeds, as is proper for mortals,
 For nothing can be better for gods or men
 Than to adore with hymns the Universal King.²⁷

7. ZAGREUS

The fifth and last of the cosmic rulers in the Orphic theology is Zagreus-Dionysus, the divine son, God-in-man, the separated deity, and as such a power of the material world, intellectual and spiritual light, son of Zeus and Demeter-Kore the Earth-goddess. Zagreus was proclaimed to be the divine successor by Zeus himself, who announced: "Hear me, ye gods, I place over you a king." The myth of Zagreus formed the basis of the Orphic Mystery-drama and will be considered later.

8. SUMMARY OF ORPHIC COSMOGONY

It is thus plain that the Orphic Cosmogony postulates the Ineffable, Unknowable, Absolute Deity, called Chronos or Un-aging Time and End-

27. Hymn of Cleanthes (Version given by James Freeman Clarke in his *Ten Great Religions*).

less Duration, as the ultimate fact; but in the evolution of the world, outlines seven emanations of the Absolute in the Ideal world, viz: (1-2) Aether (spirit) and Chaos (matter), from which springs (3) the Mundane Egg (Manifested Life), out of which leaps (4) Phanes (the first Logos), who in turn is succeeded by (5) Uranus and (6) Kronos (the second and third Logoi), who are also succeeded by (7) Zeus (the demiurge), the last power of the Ideal World, who starts again the sevenfold process of emanation by begetting Zagreus-Dionysus the God-in-man, the divine son. The importance of the septenary key in Orphic theology is further shown by the following verses:

When the Seventh Light comes, the All-powerful Father begins to dissolve all things, but for the good there is a Seventh Light also; for there is a sevenfold origin of all things.²⁸

“THE EXPANDING UNIVERSE”*

Review and Comment

JOSEPH H. FUSSELL

I

SIR ARTHUR EDDINGTON is one of the most delightful of scientific writers, and the present work, while dealing with abstruse cosmical problems, is written in so fascinating a style that one is apt to read on and on just for the sheer delight of the story, eager to find how the author unravels the plot. For it is an adventure-story, a mystery-story, and tells of a search for one of the greatest hidden treasures which men of all ages have sought for — and, so it is said, which some have found — namely, the secret of the Universe in which we live. It is also a ‘detective story’: “I am a detective in search of a criminal — the cosmical constant,” writes the author. “I know he exists, but I do not know his appearance . . . the search has revealed footprints, or what look like footprints — the recession of the spiral nebulae” and from other clues “and checking one against the other I think I have now about enough evidence to justify an arrest.” (p. 61)

We have just been reading Professor Max Planck’s *Where is Science*

28. Orphic Verses, quoted by Eusebius in *Praep. Ev.*, xiii, 12, 688.

**The Expanding Universe* by Sir Arthur Eddington, Cambridge University Press, 3s. 6d. net.

*Going?** and this present work gives rise to the same question, for the outstanding representatives of Modern Science, of whom a dozen or more might be named, and among whom Professor Eddington himself holds an honored and worthy place, are voyaging into new realms and embarking on new adventures. Much exploring must be done, and in a sense each explorer must blaze his own trail, even though other travelers have discovered the great highways leading to the heart of this (for these new explorers) still undiscovered country — the heart of the Universe.

One of the most significant, and perhaps the greatest, of the achievements of modern science is the discovery of a 'sign-post' marking the beginning of a secret trail, marking in fact one of the great highways just spoken of — or if not the actual discovery of it, at least the intuitive perception of its existence. As elsewhere stated by Sir Arthur himself, "Mind-stuff" (or as other scientists express it, 'consciousness') "is the fundamental of the Universe." This is one of the basic teachings of the Ancient Science, and if they will recognise it, this 'sign-post' points in the direction which our modern scientists must follow if they would explore these new realms, well equipped for their journey. The significance of this 'sign-post,' a corollary of this 'fundamental of the Universe,' is that the ultimate explanation of the Universe is to be sought for in terms of consciousness, with the further implication that mind or consciousness is not only the measurer but, as man, the final measure of all things. Consciousness can be measured only by consciousness; and hence the mechanistic theory cannot give a complete explanation of the universe or of any part of it.

II

THE theory of an expanding universe is based on two factors: observational research and mathematical calculation. But the theory is not only of a closed expanding universe, which, with the proviso that it is a rhythmically expanding and contracting universe, is tenable; it includes also the conception of a closed expanding and curved Space. Here the mind calls a halt, which indeed was anticipated by the author even in respect to an expanding universe. He writes:

I have taken it for granted that the reader's attention, like my own, is fixed on the strictly scientific progress of the inquiry and that he will suspend all questions as to how the physical scheme, which is here being developed, can be made to fit in

*See THE THEOSOPHICAL PATH, October, 1933.

with the general outlook of life and consciousness. It would be unfortunate to prejudice the inquiry by dragging in such questions prematurely.—p. 122

On the other hand, it should be recognised that one’s philosophy of life and consciousness are present with us always as a background, even in scientific investigation, and fortunately so, because it provides a check against going too far in any direction which may do violence to fundamental conceptions. As said, this difficulty is recognised by the author and he attempts to forestall it, but, we think, unsuccessfully, when he writes in answer to an imagined objector who says:

— But your system is impossible; there must be a boundary.

— Why is it impossible? I could arrange a billion people on the surface of the earth (spread over the whole surface) so that each has neighbours on all sides, and no question of a boundary arises. I only want you to do the same with the stars.

— But that is a distribution over a surface. The stars are to be distributed in three-dimensional space, and space is not like that.

— Then you agree that if space could be ‘like that’ my system would be quite possible and natural?

— I suppose so. But how could space be like that?— p. 39

Unfortunately for the value of the argument both the questions and the answers are supplied by Professor Eddington himself. We do *not* agree that “space could be ‘like that.’” And we do not agree with him when, continuing his argument, he says:

But spherical space does not contradict our experience of space, any more than the sphericity of the earth contradicts the experience of those who have never traveled far enough to notice the curvature.— p. 40

Unfortunately, again, this is not a true parallel. What holds good of a surface which is two-dimensional does not necessarily or by implication or analogically hold good of three-dimensional space. Moreover — and bear in mind we are reviewing a scientific work — a surface *per se* is non-existent: it exists only as related to the physical material body of which it is a surface; it cannot exist apart from a physical material body. Physical bodies can be distorted or bent, by which process their surfaces are likewise distorted or bent; but no surface of itself can be subjected to such a process, and the distortion or bending which can be applied *only to three-dimensional matter* does not warrant the assumption that space can be subjected to a like process.

Nor do we follow the Professor’s reasoning when he says of a ‘closed universe’ that “such a system cannot expand without the space also expanding. That is how *expansion of space* comes in” (p. 40).

A closed system of galaxies requires a closed space. If such a system expands, it requires an expanding space. This can be seen at once from the analogy that we have already used, viz. human beings distributed evenly over the surface of the earth; clearly they cannot scatter apart from one another unless the earth's surface expands.— p. 41

Is the analogy a true one? Is the assumption correct? Are the galaxies distributed evenly throughout space? Is it not possible that eighty or ninety out of a hundred thousand million galaxies could be scattered apart from one another without its being necessary to postulate an expanding and curved space? And on what assumptions is the conception of the curvature of space based? On an 'extra dimension,' a purely 'fictitious construction,' and on the assumption that, as the "curvature of surfaces . . . is a property which we can impart by bending and deforming a flat surface — we can imagine an analogous property to be imparted to space"; but, says the author, correctly:

we cannot alter space artificially as we alter surfaces. Nevertheless, we may conveniently describe the property [of curvature of space] by the imaginary operation of bending or curving, which would remove it if it could be performed; and in order to use this mode of description fictitious dimension is introduced which would make the operation possible.

Thus if we are not content to accept curvature as a technical physical characteristic but ask for a picture giving fuller insight, we have to picture more than three dimensions. Indeed it is only in simple and symmetrical conditions that a fourth dimension suffices; and the general picture requires six dimensions (or, when we extend the same ideas from space to space-time, ten dimensions are needed). That is a severe stretch on our powers of conception. But I would say to the reader, do not trouble your head about this picture unduly; it is a stand-by for very occasional use. Normally, when reference is made to space-curvature, picture it as you picture a magnetic field. Probably you do *not* picture a magnetic field; it is something (recognisable by certain tests) which you use in your car or in your wireless apparatus, and all that is needed is a name for it. Just so; space-curvature is something found in nature with which we are beginning to be familiar, recognisable by certain tests, for which ordinarily we need not a picture but a name.— p. 31

III

IN justice to the author the following statement, in which he limits the scope of his discussion, should not be overlooked:

It is no part of my present subject to discuss the relation of the world as conceived in physics to a wider interpretation of our experience; I will only say that that part of our conscious experience representable by physical symbols ought not to claim to be the whole.

And then, intuitively, but apparently not recognising its full import, and not yet wholly willing to accept it as a *sine qua non*, he hints at one of the ancient keys to the unlocking of the Secret of the Universe, saying:

As a conscious being *you* are not one of my symbols; your domain is not circumscribed by my spatial measurements. If, like Hamlet, you count yourself king of infinite space, I do not challenge your sovereignty. I only invite attention to certain disquieting rumors which have arisen as to the state of Your Majesty's nutshell.— pp. 43-4

Here, in truth, Professor Eddington points to the root of the whole matter, to the final test by which all theories must be judged; namely, as already said above, that man is the measure of all things. We recognise the difficulty, in a small work like that under review, of dealing adequately with a subject of such basic importance, with, in fact, one of the fundamental conceptions of the universe; but at the same time we regard this reticence on his part in respect to what we may call the ‘court of final appeal’ as an unfortunate omission from the otherwise able presentation of his findings.

In other words, any scientific theory, any conclusion which may be reached as a result of observation or mathematical calculation or both, must satisfy man's mind and consciousness and accord with the ‘wider interpretation of his experience.’ It is generally recognised that, of different explanations or theories, provided these are, as far as may be determined, equally supported by known facts, the simplest explanation or theory should be adopted and is most likely to be the nearest to the truth — for this reason, namely, that Nature, and natural law, follow always the path of least resistance, the path of ‘quickest arrival,’ to quote a phrase of the author. All physical science is based on the fact of the actual existence of the external world — a world of *relative* reality, a world of which we ourselves form part, a world subject to law and order, and hence subject to and possible of, *rational* explanation. The external world of *actuality* which Professor Planck and others speak of as ‘the external world of reality’— of *relative* reality, we say, for reality cannot be postulated of that which is ever changing, as is the phenomenal world which is subject to investigation by physical science — the external world is therefore not a fictitious or imaginary world, either as a whole or in any of its parts. Nor does any rational, satisfactory, or even complete explanation of the universe require the

employment of any fictitious dimensions or factors. On the contrary we hold, fundamentally and logically, that any theory of the physical universe which depends upon any fictitious dimensions or imaginary factors is thereby conclusively shown to be untenable and to be itself fictitious. This we hold to be fundamental. Thus no fictitious and impossible model of the universe, as outlined by the author, can be held to give a true or approximately true picture or representation of the universe, nor is any fictitious model necessary.

The physical universe is an *actual* universe, existing both in time and space; there is nothing fictitious or imaginary about it; and however complicated, from our standpoint, may be its workings and the laws governing them, such workings and the operations of such laws are in and on the plane, or realm, of physical matter. Hence, for any stage in the life-history or development of the physical universe or of any portion of it, it is theoretically possible to construct a model without employing any fictitious dimensions or imaginary factors which have no actual counterpart in the 'wider interpretation of our experience.' There is, thus, a very serious objection and, as we view it, an insuperable and fundamental objection, to the wholly imaginary model conceived and described by Professor Eddington as follows:

For a model of the universe let us represent spherical space by a rubber balloon. Our three dimensions of length, breadth and thickness ought all to lie in the skin of the balloon; but there is only room for two, so the model will have to sacrifice one of them. That does not matter very seriously. Imagine the galaxies to be imbedded in the rubber. Now let the balloon be steadily inflated. That's the expanding universe.

In the first place — and this is no quibbling in regard to words, for we are speaking scientifically — the *skin*, the *rubber*, of the balloon, is three-dimensional. Secondly, no surface exists of itself, *per se*, but only as the outer boundary or periphery of a physical material body. Thirdly, no actual evidence is adduced or has been adduced to warrant the assumption that the galaxies are arranged upon, or lie upon, the surface of a sphere. They may perhaps be so conceived in a mathematical and purely hypothetical universe; but so far no actual observational facts support such a conclusion. Mathematics are an instrument of exact reasoning but can lead only to correct conclusions if based upon exact data. Mathematics cannot supply data but may be a means of testing data. The test lies in this: are the conclusions arrived at in accord with

facts and reason and with the ‘wider interpretation of our experience’?

In justice to the author, due attention should be given to the following. After discussing the possibility of picturing four dimensions, and the rotation of a ‘bubble’ of four dimensions, he writes:

I need scarcely say that our scientific conclusions about the curvature of space are not derived from the false involuntary picture [of the rotation of a ‘bubble’ of four dimensions] but by algebraic working out of formulae which, though they may be to some extent illustrated by such pictures, are independent of pictures. In fact, the pictorial conception of space-curvature falls between two stools: it is too abstruse to convey much illumination to the non-mathematician, whilst the mathematician practically ignores it and relies on the more dependable and more powerful algebraic methods of investigating this property of physical space.—pp. 32-3

But the question arises: are these algebraic methods based on true and accurate data, and on a true interpretation of such data?

IV

THERE is, however, some ground for the *idea* of an *apparently* curved, or even closed, space. It is only Sir Arthur Eddington’s interpretation of that idea, based upon mathematical reasoning and involving fictitious dimensions and imaginary factors, which does not appeal to our reason. But underlying it are certain cosmical facts, of which the author himself gives adumbrations, and which, if recognised, will go far towards providing data for a more complete and truer picture and explanation of the physical universe.

As quoted above, we have the author’s categorical statement that “space-curvature is something found in nature . . . recognisable by certain tests,” and also in the following:

Is it surprising that the precise investigation of physical space should have brought to light a new property which our crude sensory perception of space has passed over?

Space-curvature is a purely physical characteristic which we may find in a region by suitable experiments and measurements just as we find a magnetic field.—p. 29

We are assured by analysis that in one important respect the picture is not misleading. The curvature, or bending of space, may be sufficient to give a ‘closed space’—space in which it is impossible to go on indefinitely getting farther and farther from the starting point. Closed space differs from an open infinite space in the same way that the surface of a sphere differs from a plane infinite surface.— p. 33

The new investigations suggest that the curvature actually leads to a complete bending round and closing up of space, so that it becomes a domain of finite extent.

— p. 34

In the theory I am going to describe the galaxies are supposed to be distributed

throughout a closed space of this kind. As there is no boundary — no point at which we can enter or leave the closed space — this constitutes a self-contained finite universe.— p. 35

From the above citations it is clear that Professor Eddington considers space-curvature to be a proven fact, and from the last citation, as a corollary of this assumed fact we have a 'self-contained finite universe.' We suggest, however, that 'the precise investigation of physical space,' and 'the tests and measurements' which have given rise to the assumption of space-curvature are susceptible of quite other interpretation — one which, moreover, is in accord with well-known facts; for be it said, we do not know of any 'precise investigation of space *per se*,' nor has Professor Eddington given any hint as to the possibility of such investigation. All the investigation of which he gives any record is with reference to *matter in space*, and the *phenomena associated with matter*, as, for instance, the apparent recession of the galaxies.

Moreover, we suggest that the theory of a self-contained finite universe is not a corollary of the main proposition, 'curvature of space'; but, *vice versa*, the phenomena which have been interpreted as those of curved and closed space are the phenomena of a closed universe.

There are certain principles formulated in the Science of Antiquity, keys which have stood the test of ages of scientific and philosophic research, and one of the most important of which is Analogy.

Analogy is the guiding law in Nature, the only true Ariadne's thread that can lead us through the inextricable paths of her domain, towards her primal and final mysteries,

wrote H. P. Blavatsky in *The Secret Doctrine*, II, 153. And in the same work:

From *Gods to men*, from Worlds to atoms, from a star to a rush-light, from the Sun to the vital heat of the meanest organic being — the world of Form and Existence is an immense chain, whose links are all connected. The law of Analogy is the first key to the world-problem, and these links have to be studied co-ordinately in their occult relations to each other.— I, 604

Sir Arthur himself appears intuitively to recognise the existence of such 'an immense chain, whose links are all connected,' when he writes:

We have been contemplating the system of the galaxies — phenomena on the grandest scale yet imagined. I want now to turn to the other end of the scale and look into the interior of an atom.— p. 96

We, however, would not say, 'on the grandest scale yet imagined';

for, just as Science today regards the atom as a solar system in miniature, so the Science of Antiquity taught that each Galaxy, each Island Universe, and the whole Universe itself, was but an atom in a Super-Universe, and that Super-Universe again but an atom in a vaster Universe still, and so on endlessly. Where shall we stop? Truly, there is no limit, no end; and to the table enumerated by Sir Arthur:

A hundred thousand million Stars make one Galaxy;
A hundred thousand million Galaxies make one Universe.

we might add: A hundred thousand million Universes make one Super-Universe; and continue the table indefinitely. In line with this is the author's own statement of “the picture of the universe now in the minds of those who have been engaged in practical explanation of its large-scale features”:

Their picture is the picture of an *expanding universe*. The super-system of the galaxies is dispersing as a puff of smoke disperses. Sometimes I wonder whether there may not be a greater scale of existence of things, in which it *is* no more than a puff of smoke.— p. 13

This calls to mind the ‘Second Fundamental Proposition’ of the Secret Doctrine of Antiquity as given by H. P. Blavatsky in *The Secret Doctrine*, published in 1888:

Further, the Secret Doctrine affirms: —

(b) The Eternity of the Universe *in toto* as a boundless plane; periodically ‘the playground of numberless Universes incessantly manifesting and disappearing,’ called ‘the manifesting stars,’ and the ‘sparks of Eternity.’ ‘The Eternity of the Pilgrim’ [the ‘Monad’ or essential self, whether of a man, a sun, a galaxy, or a universe] is like a wink of the Eye of Self-Existence. (Book of Dzyan.) ‘The appearance and disappearance of Worlds is like a regular tidal ebb of flux and reflux.’

This second assertion of the Secret Doctrine is the absolute universality of that law of periodicity, of flux and reflux, ebb and flow, which physical science has observed in all departments of nature. An alternation such as that of Day and Night, Life and Death, Sleeping and Waking, is a fact so common, so perfectly universal and without exception, that it is easy to comprehend that in it we see one of the absolutely fundamental laws of the universe.— *Op. cit.*, I, 16-17

V

ALTHOUGH we do not consider the evidence offered sufficient to warrant the acceptance of an expanding universe as put forward by Sir Arthur, or that the super-system of galaxies is dispersing in the manner described by him, nevertheless we hold that the conception of rhythmi-

cal alternation of the expansion and contraction of the universe is a true conception, based on the second fundamental proposition of the Secret Doctrine just above quoted, and on analogy. Science is based on, and results from, investigation of Nature and natural law. All available evidence, all our *knowledge* of Nature, confirms the truth of 'the absolute universality of the law of periodicity.' And the same is true of another of the fundamental teachings, another of the basic principles of the Science of Antiquity, namely, that throughout Nature, throughout the cosmos, in every universe, world, or atom, is one universal life, one law, one course of operation; that the small mirrors the great; that man is the microcosm of the Macrocosm; that every atom has the potentiality of the whole universe, which is itself but an atom in a vaster universe. This also follows as a corollary of the acceptance of consciousness as the fundamental of the universe.

Let us apply these principles, these fundamental conceptions, to (a) the theory of the closure and curvature of space; (b) an expanding universe; (c) the cosmical constant.

(a) Every atom, every entity or organism, every solar system, every universe, is a closed system. Each has its own energies, forces, life-currents, circulating within, through, and around it, in its own field: as, for instance, the electric and magnetic currents in the earth's atmosphere as well as in the earth itself; the life-energies and currents within and around the human organism, and the electric and magnetic currents within and around the atom. What is 'matter'? Mostly 'holes,' 'spaces'! Within the atom, a miniature solar system, as said, the distances between the electrons, and between these and the proton, are comparable to the distances between the planets and between the latter and the sun. Is therefore the *space* around each atom, or that around each human body, or each solar system, curved and closed? No! The fact that the energies travel in curved, re-entrant paths, as we know from observation and experience in regard to man, is due to the fact, and explainable on the ground, that each atom, each human entity, each solar system, is a self-contained organism. As said by Dr. G. de Purucker in *Fundamentals of the Esoteric Philosophy*, expressing another of the basic teachings of the Ancient Science, the Wisdom-Religion of Antiquity, today called Theosophy:

Space is infilled with an infinite multitude of self-contained universes, interlocking and interpenetrating each other [which is also one of the teachings of the Stoic

philosophy]. . . . *Krasis di' holou, a mingling through everything, an intermingling of all the essences in the Cosmos, arising out of, and differentiated from, the Root-substance common to all.—Op. cit., p. 50*

Such was the ancient teaching and today we have Sir Arthur Eddington postulating ‘mind-stuff,’ and other eminent scientists ‘consciousness’ as the ‘fundamental,’ *i. e.*, the Root-substance of the universe. If, therefore, there be one fundamental, one Root-substance common to all, there must be one ‘law,’ one ‘course of operation,’ one ‘life’ throughout all; and hence we have the scientific basis for analogy as ‘the key to the world-problem.’

(b) Let us then apply these keys of Analogy and Periodicity to the theory of an expanding universe. “There is,” to quote again from H. P. Blavatsky, “a purpose in every important act of Nature, whose acts are all cyclic and periodical” (*The Secret Doctrine*, I, 640). Thus, as there is rhythmic expansion and contraction of the human heart and of the whole trunk of the human body, which Dr. Crile of the U. S. A. recently compared to a galactic system, a universe — also a teaching of the Ancient Science — with its nebulae, its solar systems, and its billions of atomic suns; so is there rhythmic expansion and contraction of the solar heart, the sun, the heart of our solar system, and so also of the heart of the galactic system and of that system as a whole. And this not merely analogically, but as an actual ascertained fact discovered by and recorded in the Ancient Science; for each sun, each galactic system, each universe, each atom, as is the case with man, is a living organism.

So let us apply the law of analogy — not far-fetched, not a wild flight of the imagination, but based on the fundamental constitution of the universe: “Consciousness is the fundamental of the universe”; “matter is derivative from consciousness, not consciousness from matter.” Instead of picturing to ourselves, as does Sir Arthur, ‘a cosmic being whose body is composed of intergalactic spaces,’ let us imagine an intelligent, thinking, observing being, living within one of the atomic solar systems which in their aggregate constitute the human heart — its lifetime less than the billionth of a billionth of a human heart-beat. And let us imagine that in its scientific researches into the cosmic mysteries of the universe around it — the human heart — it makes the astounding discovery that that universe is expanding, and it envisages this expansion as continuing for countless ages and sees no limit to it, while the distances between the nebulae and solar systems appear and actually

do grow continually greater, so far as its observations and mathematics show. And the scientific conclusion of, or the theory evolved by, this infinitesimal entity is that of an ever-expanding universe, at last, like a bubble, to burst. But *we* know that such expansion lasts but a moment of *our* time, after which it gives place to contraction — systole and diastole rhythmically alternating throughout what to this infinitesimal entity would be incomputable, unimaginable, aeons upon aeons. And what are we, what is the span of our life, compared with the galaxy in which we live and move and have our being and *its* span of life, or compared with the universe of which, according to the author's table, our galaxy is but one among 100,000,000,000 galaxies? What but an infinitesimal entity living on a cosmic electron!

VI

THE truth is — and this is stated as a logically demonstrable truth and fact — there is no *one way* in Nature, but, as quoted above, “all nature's acts are cyclic and periodical,” even the appearances and disappearances of galaxies and universes. Furthermore, universes, galaxies, solar systems, suns, planets, are as much subject to birth, growth, decay, and death, as is the human organism, or the human cell, or the atom; all pass through the same or analogous processes; each is born from a seed produced by and resulting from an earlier similar organism, the inner entity or consciousness-center, of which the outer organism is the material physical expression, re embodying itself again and again, and in the course of ages evolving out of itself new and higher forms, new and higher organisms. This is not a ‘nightmare of eternal repetition,’ as the author envisages it (p. 125), but endless growth, and the unfolding of new and higher powers in the wider vision and higher faculties of each re embodying entity — each re embodiment a new adventure, another chapter in this, the greatest of all mystery-stories. All this, as said, follows upon and is the natural and inevitable corollary of: “Consciousness is the fundamental of the universe.”

(c) Professor Eddington, as already mentioned, presents himself as “a detective in search of a criminal — the cosmical constant. . . . The search has revealed footprints, or what look like footprints — the recession of the spiral nebulae.” But here is an un failing test: does the cosmical constant, as conceived and described by Professor Eddington, conform in all particulars to the fundamental laws and course of opera-

tion of Nature? If it be *the* or *a* cosmical *constant*, is its action, its function, unvarying, not only with respect to one ‘end’ of the scale, but with respect to the other ‘end’ of the same scale? We say ‘the same scale,’ for scale succeeds scale, as octave succeeds octave, and the upper end of one is but the lower end of the next succeeding, and the lower end is the upper end of the last preceding, and so on endlessly, in the endless ‘ladder of life.’

The ‘connecting link’ between these two ‘ends,’ as conceived by Sir Arthur,

is the cosmical constant. Hitherto we have encountered it as the source of a scattering force, swelling the universe and driving the nebulae far and wide. In the atom we shall find it in a different capacity, regulating the scale of construction of the system of satellite electrons.

And then, continuing, he says:

I believe that this wedding of great and small is the key to the understanding of the behaviour of electrons and protons.— p. 96

Yes, if we understood the behavior of electrons and protons, we should understand the behavior of the planets and the suns and of the galaxies which form our universe, and *vice versa*. For, as said above, and we here repeat, there is throughout Nature one law, one course of operation. Nature’s laws do not act in one way in the great, and another way in the small; for there is neither great nor small save relatively; and as also above stated, the universe itself is but an atom in a vaster universe. The cosmical constant, any cosmical constant, if there be more than one, must fit equally, and have the same relation and function, in every part of the Cosmos, and in respect to every thing in the universe: galaxy, sun, man, or atom, on every rung of the ladder of life, and for every note of the scale. It cannot appear in one capacity in the universe, and in another in the atom — else it is not a constant. The cosmical constant is rather, from one aspect, the keynote of what has been poetically called ‘the music of the spheres,’ which is the music, the harmony, the rhythmic relationship, not alone of the planetary and stellar spheres and the galaxies, but of the atoms and electrons and protons; and this keynote is the same for all the musical harmonies throughout the vast reaches of our Home-Universe. Find the keynote, the constant, of the atom, and you have the keynote, the constant, of our Home-Universe. Finding that keynote, you can pass to the keynotes of

other Island-Universes and learn something of their harmonies and of the relation of these to the keynote of the vaster universe of which they are parts.

From another aspect the cosmical constant, or *one* cosmical constant, is 'the absolute universality of the law of periodicity,' which indeed is expressed in every musical note: repetitive vibration. Or, again, 'as above, so below'; 'man is the microcosm of the macrocosm'; 'as is the small, so is the great' — which, again, is the basis of Analogy. These are fundamental conceptions, axiomatic truths, universally applicable and hence 'cosmical constants.'

And, too, there are certain simple mathematical constants on which this universe is builded, and all that is in it: 7, 10, and 12, with their factors and multiples. How much might be learned from a study of the Tetraktys of Pythagoras and its symbology! However complicated the 'machinery' and the operation of Nature's laws, they are based on simplicity itself; and so are the cosmical constants.

VII

"To drop the cosmical constant would be to drop the bottom out of space," declares the author; but the question still remains, Has he found it? We think he has not. As he himself asks in one of the concluding paragraphs of this remarkable little work: "Now I have told you 'everything right as it fell out.' How much of the story are we to believe?"

One realizes that Sir Arthur is indeed on the track of one of Nature's mysteries, and that the observed fact of the 'shifting of the spectrum' of certain nebulae 'towards the red' is an important factor, a clue, which may lead toward a solution of this mystery. But what this spectral shifting signifies we think has not been shown. The author's theory is based upon the assumption that the velocity of light is the same throughout the inconceivably vast reaches of space. But is this so? It is merely an assumption. Light is energy. Energy does not exist apart from matter. Force is but the other pole of matter, and can no more be divorced from its opposite pole than one pole of a magnet can be divorced or separated from *its* polar opposite. So in the final analysis it comes to this: What is Space? Apparently to us, emptiness, vacuity; but on the other hand, as the ancients taught, a *pleroma*, a *plenum*. Indeed, the question arises as to the truth of the theory, or of the con-

clusion reached by some, namely, as expressed by the author, that:

The reddening signifies lower frequency of the light-waves and (in accordance with quantum theory) lower energy; so that if for any cause a light-quantum loses some of its energy in travelling to reach us, its reddening is accounted for without assuming any velocity of the source.

To which Professor Eddington adds his own comment:

If the loss occurs during the passage of the light from the nebula to the observer, we should expect it to be proportional to the distance; thus the red-shift, misinterpreted as a velocity, should be proportional to the distance — which is the law actually found. But on the other hand there is nothing in the existing theory of light (wave theory or quantum theory) which justifies the assumption of such a loss.

And then, very wisely, and in the true scientific spirit, he continues:

We cannot without undue dogmatism exclude the possibility of modifications of the existing theory. Light is a queer thing — queerer than we imagined twenty years ago — but I should be surprised if it is as queer as all that.— p. 16

In fact, already the possibility of a modification is being mooted. Since the publication of this volume, *The Expanding Universe*, the remarkable statement has been made by a distinguished American scientist, to the effect that certain most recent investigations show that the velocity of light is *not* constant, but varies. This, if it be corroborated, is one of the most significant and revolutionary discoveries in this present age of remarkable scientific progress, and we shall await with interest Professor Eddington's comments thereon.

Although Sir Arthur may not have succeeded yet in obtaining sufficient evidence to prove the identity of the cosmical constant, and to warrant an 'arrest'; and although he may have misinterpreted the footprints and mistaken some of the clues; nevertheless, he has shown himself a thoroughly true and able 'detective,' and a worthy representative, not of the C. I. D., but, let us say of the S. I. D., the Sidereal Investigation Department — one who will not be satisfied nor rest until he has achieved success in his investigations. As the most fitting conclusion to these comments and reflexions, we quote the last two paragraphs of this most fascinating and thrilling of 'Mystery-Stories.'

A slight reddening of the light of distant galaxies, an adventure of the mathematical imagination in spherical space, reflections on the underlying principles implied in all measurement, nature's curious choice of certain numbers such as 137 in her scheme — these and many other scraps have come together and formed a vision. As when the voyager sights a distant shore, we strain our eyes to catch the vision.

Later we may more fully resolve its meaning. It changes in the mist; sometimes we seem to focus the substance of it, sometimes it is rather a vista leading on and on till we wonder whether aught can be final.

Once more I have recourse to Bottom the weaver —

“I have had a most rare vision. I have had a dream,—past the wit of man to say what dream it was: man is but an ass, if he go about to expound this dream. . . . Methought I was, and methought I had,—but man is but a patched fool, if he will offer to say what methought I had. . . .

“It shall be called Bottom’s dream, because it hath no bottom.”

And one more thought, a question: Is there a key to the significance and final interpretation of the dream? Is this key Space and an understanding, as far as may be, of Space, and of Consciousness, the ‘fundamental of the Universe’? — Space, which truly has no ‘bottom’; and Consciousness, which has no limits? What is Space? Can we fathom it, or go beyond it? What is Consciousness? Can we fathom Consciousness or go beyond or behind it?

IS EVOLUTION MECHANISTIC OR INTELLIGENTLY GUIDED?

A Scientific Revolution in Progress

C. J. RYAN, M. A.

THE subject of the Evolution of Life, both in form and consciousness, can be approached from two opposite standpoints, the one being the concept that the advance has been made by haphazard or accidental ‘natural’ processes, working blindly or fortuitously as the inevitable outcome of physical and chemical laws; the other being the concept that intelligent mind and purpose are to be detected behind the marvelous complexities and adaptations in the world around us. Theosophy, of course, takes the latter position, while the former is associated with Darwinian theories of ‘natural selection,’ ‘survival of the fittest,’ and ‘the struggle for existence.’ The Darwinian theories are apparently struggling for *their* existence in the heat and dust of a losing battle within the scientific arena itself.

In an excellent magazine which is largely devoted to Theosophical interests and which appeals to Theosophical readers — though not a publication of any Theosophical Society — we lately noticed that cer-

tain 'hard-shell' Darwinian books on evolution were strongly recommended "to students of occultism who are sufficiently open-minded to be willing to compare the statements in occult literature with *the established facts of nature* and the views of science . . ." (italics ours). Among these works are Darwin's *Origin of Species by Means of Natural Selection*, Keith's *Man's Origin*, Hooton's *Up from the Ape*, and Morgan's *What is Darwinism?* (defending the original Darwinian Theory of Evolution) and others of similar quality.

At the same time we received reports of the *Address* of the distinguished anthropologist and biologist, Robert Broom, M. D., D. SC., F. R. S., President of the South African Association of Science, given at the meeting of that society at Barberton on July 3, 1933. We also received reprints of two recent lectures on the methods of Evolution by the same authority. As these learned papers are wholly against the position taken about Evolution by the above-named writers, the coincidence was striking.

Dr. Broom's position, supported as it is by undeniable evidence, is strongly in favor of the claim that Evolution is no accident but that it has Purpose and Intelligence behind it, and we feel that our readers should have a brief outline of his points to consider, partly for their own intrinsic interest and importance, and partly as ammunition in defense of 'statements in occult literature' which are inspired by, or agree with, the Theosophical teachings of H. P. Blavatsky and the Eastern Wisdom, but which do not please the mechanistic Darwinians. Dr. Broom is, of course, not alone in his criticisms of the materialism of Darwinian evolution, and in his effort towards a more spiritual view he has received warm support in many quarters. We cannot agree with those who believe that "*the established facts of nature and the views of science*" support the origin of species by natural selection, and the imaginary progress 'up from the ape,' etc., when there is such a difference of opinion among scientists, and a generally increasing distrust of the materialistic explanations; especially when such highly qualified experts as Dr. Broom and many others repudiate natural selection, etc., as primary factors in the origination of species, and are seeking for the real causes.

By all means let us learn what can be said on both sides, but we need not condemn the 'statements in occult literature,' strange as they may seem to the academic mind, on the strength of the opinion of a few 'die-hards,' however eminent and sincere, who are still psychologized by the

glamor of the dramatic events and tremendous strivings for intellectual freedom of the last century.

But many natural scientists are now finding that, so to speak, man does not live by bread alone, but by something more spiritual, and that chance and accident are utterly inadequate explanations for the orderly and marvelous development of our wonderful world of life and beauty. The smashing blows of the biologists of the latter part of the nineteenth century were only preparatory measures; they cleared the ground for the coming constructive work of which the Theosophical Movement has provided the general outline.

Dr. Broom is a pioneer in the new-old Evolution. 'New-old' because it is perhaps a novelty today, but it is no new thing. The truth that Intelligence is behind Evolution is a very ancient doctrine, and has been denied only in recent times. Dr. Broom, who is highly qualified for the necessary research, has been convinced by years of study that the mechanistic processes of Nature are not the cause of the great advance of life down the ages, and that we are compelled to call in Intelligence, with Purpose behind it, to explain the evidence provided by geology, biology, and anthropology. The appearance of new species, he finds, does not take place in accord with the doctrines of chance and accident; the development of new features in various forms of life cannot be explained by 'natural selection' or the 'survival of the fittest.' The remarkable intervals in which there was little evolution at all, alternating with periods of *rapid evolution* and astonishing changes, and the fact that all important lines of evolution, *except the appearance of Man*, ended in the Eocene period, are incompatible with any theory but one that provides a large place for Intelligence. He shows that "all forms of plants and animals have reached such a specialization that they can hardly evolve any farther," and that all evolution has tended toward the production of Man. It is impossible here to give the technical reasons for these conclusions, though they are extremely interesting, but we can touch on certain points of special significance to Theosophists.

Dr. Broom has been profoundly impressed with the lack of any Darwinian suggestion of creative causes or of any foresight in Nature. He points out the utter inadequacy of the Lamarckian, Darwinian, and other theories, including the more modern one of Mutation, which many biologists have resorted to rather than abandon mechanistic explanations,

even if it does bring in its own dark mysteries. Among other authorities he quotes Dr. H. Fairfield Osborn:

That particular and essential bit of the theory of evolution which is concerned with the origin and nature of species remains utterly mysterious. . . . All that we can say at present is that nature does not waste time or effort with chance or fortuity or experiment, but that she proceeds directly and creatively to her marvelous adaptive ends of bio-mechanism. . . . We are more at a loss than ever to understand the causes of evolution.

Dr. Osborn's words were uttered seven years ago, and since then he has offered the world valuable evidence in favor of *purposive* evolution, showing above all, that evolution is an unwrapping or unrolling of what was already wrapped up in early states. This subject was considered in *THE THEOSOPHICAL PATH* for July, 1933, p. 44, where Dr. Osborn's intensive researches on the teeth of the Proboscideans were referred to.

Dr. Broom quotes great biologists in favor of his fundamental idea that Intelligence is behind evolution:

. . . we seem forced to the conclusion that there must be behind Evolution *spiritual agencies* of various degrees of intelligence. Science has generally hesitated to accept agencies which cannot be studied in the laboratory, but as time goes on we seem to get more and more evidence that there are powers in the universe that cannot be studied by either the physicist or the chemist. General Smuts, in dealing recently with the "nature of scientific knowledge and of the relation of mind to matter," considers that in the future "a spiritual view of the universe may not only be justified, but may receive firm support from science itself."

Russel Wallace, who with Darwin in 1858 proposed the theory of natural selection, very soon came to regard the theory as not completely satisfactory, and considered that it cannot explain many of the physical and mental characters of man. He believed that the evolution of man was the result of the action of some organizing and directing supernatural principle and that "a superior intelligence has guided the development of man in a definite direction and for a special purpose." Osborn, as the result of fifty years' wrestling with the problem, has recently come to the conclusion that in evolution there is an "inexplicable and mysterious factor" which he calls "creative aristogenesis." . . .

We do not believe in the 'supernatural,' but evidently what is meant is some intelligent organizing power (not a *personal, anthropomorphic* God) as opposed to the mere 'action of the ordinary chemical and physical forces'—the familiar mechanistic and preposterous explanation of life.

It is impossible in our limited space to describe the skilful arguments which Dr. Broom uses to demonstrate that evolution "has practically

finished and cannot be repeated unless all higher life is wiped off from the earth and a new start made from the very beginning" and that "man is the end to which some power has guided evolution." While the evolution of lower types has slowed down, this does not mean that *man* cannot advance, *as man*, to stages "as far above the highest human types of today in soul and intellect, as Darwin and Newton were above the aborigines of Australia." Dr. Broom poetically, but not unreasonably, suggests that:

It may be that the evolution of the birds with their songs and often beautiful colors, the flowers with their scents and their colors and fruits, the restful green of the grass, and the higher types of insects, may all have been deliberately evolved to make a bright world for man.

In regard to Dr. Broom's well-documented argument that evolution has practically finished, it is important to remember that H. P. Blavatsky mentions that idea under the name of the "Law of Retardation," an "aspect of *Karma*." She says:

The Occultists believe in an *inherent law* of progressive *development*. Checked and modified, however, by the *Law of Retardation*, which imposes a restriction on the advance of all species when a Higher Type makes its appearance.

— *The Secret Doctrine*, II-259-60

This is extremely important as a clue to the understanding of the process of evolution, and it is another testimony to the remarkable approach that Dr. Broom has made to the Eastern Wisdom. How is it that modern science has not discovered this before? Quoting from an interview with Dr. Broom, *The Rand Daily News*, for July 4, 1933, says:

Two years ago Dr. Broom maintained that evolution was played out, and that no new types of animals could appear—they must either continue on the same lines, remain as they are, or die out. Professor Huxley opposed these views, but this is what he has written to Dr. Broom now: "I have often thought about your idea of the fading out of evolutionary potency, and I cannot pretend to agree with some of your philosophical corollaries. But your idea is *of great importance as a fact*." Professor Bower, one of the world's greatest botanists, has written to Dr. Broom saying that he thinks that even among flowers and plants evolution is played out.

A few more quotations from Dr. Broom's lectures will make his case plainer. First in regard to the value of 'natural selection' as a creative power, upon which so much stress has been laid:

Of course, natural selection plays a most important part in *eliminating the unfit*, but there is no evidence that it *has ever had anything to do with the evolution of the fit*.

Upon the subject of 'mutation' or considerable changes ('sports') occurring rapidly and providing material for new types or for the elimination of the types that were outclassed by those possessing advantageous variations, he says:

In the first place, it is manifest that evolution has not been by large mutations. For the most part, it has been by practically imperceptible slight mutations. These are so slight that it is impossible to say, in many cases, where one species ends and the next begins.

The mutations are so slight that no single one would have been of real advantage. For instance, let us suppose the scientific hypothesis to be correct that a certain insect-eating quadruped was the progenitor of the bats. Now, if it and its descendants had tried to develop a flying apparatus by a long series of *very minute and very slow* changes, the earlier stages of transformation of limbs into 'wings' would not only have been useless but a positive hindrance to the survival of the individuals concerned. The power of escaping danger by running quickly would have been seriously impaired by the growth of the membrane between the claws, yet the animal could not yet seek safety by flying. If, however, the changes were rapid and *in one definite direction*, and also if they appeared in a large number of individuals *at the same time*, we could understand that a sufficient number would survive till the wings became useful. This, of course, replaces 'natural selection' by chance, in the Darwinian sense, by a definite and consciously directed effort to reach a foreseen and highly specialized form. Dr. Broom shows that all the facts lead to the conclusion that

not only is there no evidence of evolution being the result of chance mutations, there is, in my opinion, the most conclusive evidence from palaeontology that evolution has not been by mutations. Evolution has certainly for long periods gone on by imperceptibly slight changes, and in one steady direction. There seems to me little doubt that in evolution we have two factors — one in association with an organism which can co-ordinate structures, and gradually modify parts to meet the needs of the animal. This force, able to deal only with the present, cannot be regarded as an intelligent force.

And there is a second factor of quite a different nature. It is a power that can control the other, and modify the evolution toward a foreseen end. This power brought about the appearance on earth almost simultaneously of two types of large-brained, warm-blooded animals — birds and mammals. And shortly after brought about the evolution of higher types of plant-life — plants with edible seeds and fruits, and often edible leaves. Nearly the whole earth became covered with grass and flowers and trees.

It is this 'power,' the second factor, which Dr. Broom sees as the controller of the tremendous changes which gave rise to the insects, the amphibians, the reptiles, the birds, the mammals, and finally — Man. Representatives of the different types of animals gradually 'specialized' so completely that no new groups can appear, only slight modifications can take place.¹ In regard to man, Dr. Broom follows the modern hypothesis that one small line of evolution ran along for millions of years without specializing itself too completely. At last it reached the ape and out of that

generalized group arose a line with a large brain, and we had the first man. . . . The coincidences are far too remarkable to have been the result of accident, and to me it seems that there is no escape from the conclusion that man is a being whose evolution has been deliberately planned by an intelligent power.

Dr. Broom's concept of the *special line of evolution* which produced a "useful manipulative hand, unspecialized molars, and stereoscopic vision, and in a higher ape a hind foot sufficiently plastic to develop into a walking foot which gave man his unique upright position" all of which was the result of deliberate, intelligent planning, is convincing enough for all who do not know of the existence of inner and more subtil worlds of form and life than the physical, and who have not given careful, unprejudiced consideration to the profound theory of Evolution brought by H. P. Blavatsky from Oriental sources. There *was* a 'special line of evolution' which produced the complete Man, but its process was far more subtil and complex than that of the simple scientific doctrine of purely physical transformation. A study of the Theosophical teachings is necessary in order to understand the Oriental point of view, but it may be briefly summarized by saying that Man is a 'Monad,' a 'spark of Divinity'—a 'spirit,' if you will — which has become involved in 'matter,' and is passing through a long pilgrimage during which it evolves marvelous potentialities out of its own nature. The 'matter' in which we are at present functioning is not the only kind of matter. Man has existed in far more ethereal conditions, and will again do so when he has

1. An abnormal development of any part or organ or a special adaptation to a certain special environment or mode of life, is called 'specialization'; when carried to a high degree it foretells the extinction of the race. For instance, the giraffe has specialized in a long neck which is useful for browsing on trees. A change of climate which would replace the trees by grassy plains would cause the extinction of the giraffe. Man has not specialized for a special climate, kind of food, or any particular environment.

gained the experience of terrestrial life. We will return to this question a little later.

Man — or the spiritual Monad, the immortal Man — had a long evolution on more ethereal worlds before he ‘descended’ to material conditions and became Man as we know man today. Much of his evolution was already accomplished, and he had no need to pass through innumerable transformations in the animal kingdom in order to reach man’s estate. Man did not descend from the anthropoids, but *from a previous kind of Man*. From private communications we learn that Dr. Broom does not accept the Theosophical teaching that the anthropoid apes are descended from certain early and degraded men by a miscegenation with a species of animals now extinct. This is naturally to be expected, as he, in common with many other biologists who have not contacted the Eastern teachings, places the anthropoids as the link between man and the lower animals. It should be understood that H. P. Blavatsky, in repudiating the belief that the anthropoids were ancestral to man, had no sentimental reasons for doing so. The facts of prehistory as known to the Adepts were against it. She expressed this plainly in 1888:

. . . There is nothing very degrading in the idea of having an orang-outang as an ancestor of our physical form. Quite the reverse, as it would forward the Occult doctrine with regard to the final evolution of everything in terrestrial nature into man, most irresistibly. . . . The reason, however, why the Occultists reject the Darwinian, and especially the Haeckelian, hypothesis is because it is the ape which is, in sober truth, a special and unique instance, not man. The pithecoïd is *an accidental creation*, a forced growth, the result of an unnatural process.

—*The Secret Doctrine*, II, 260-1

The monsters bred in sin and shame . . . “*blurred copies*” of their bestial sires, and hence of modern man (Huxley), now mislead and overwhelm with error the speculative Anthropologist of European Science.—*Ibid.*, II, 679

But all scientists do not agree that the ape was man’s ancestor. Some years ago, Professor H. von Buttel-Reepen of Oldenburg, Germany, said:

The progenitor of man was not an ape or even like an ape. He was more like the man of today. . . . As man and the anthropoid apes are descendants of the same ancestor [the Theosophical view] we should find that the young ape presents a closer resemblance to man than the mature ape. It is a well-established biological law that the degenerate descendant is closer in youth to the original normal type than in old age. This is exactly what we find in apes. They show their specialities

of degeneration as they mature. Take the pictures of a young gorilla, a man, and an adult gorilla. The young gorilla closely resembles the man, but the older he grows the more marked becomes the divergence.

More recently than the above, we have the testimony of Professor Adloff, given at the Congress of Prehistoric and Protohistoric Sciences in London in August, 1932. Quoting from the report in *The Manchester Guardian*:

Professor Adloff believes that man is not descended from the ape, but that apes are an offshoot from the stem from which man descended. . . . Of all the primates, the apes are most nearly related to man, and of these the chimpanzee. The most usual conception, that man evolved from a form resembling that of the anthropoid, is based on the fact that man and anthropoid apes have many characters in common. This undeniable fact, however, would equally justify the assumption that the anthropoid ape has evolved from the human stem. Theoretically, both views are justified. The researches of the comparative anatomist have produced no proof that evolution from the anthropoid ape into man was the only possible order. Nor has the study of the available anthropoid and human remains led to a clear verdict. Only a form that could be equally well classed as ape and man could count as a missing link.

Of course such a form can never be found. As soon as the two forms become differentiated they are either anthropoid or human. The nearer they are to their common origin the more they resemble one another, so that the determination of their genus becomes difficult.

Many other quotations to the same effect could be given, but the problem of the 'common ancestor' of Man and Anthropoid is too complicated for discussion in a short article. As, according to science, no trace of the immediate ancestor of man has been found, the Theosophical position stands as a logical explanation which will bear the severest criticism. But the criticism should be made by those *who know more of the facts of Nature than merely those of the physical plane*; others are disqualified by preconceptions, prepossessions, and — to speak frankly — unpardonable ignorance of enormous regions of Nature behind the veil of 'matter.' As H. P. Blavatsky said:

The whole issue of the quarrel between the profane and the esoteric sciences depends upon the belief in, and demonstration of, the existence of an astral body within the physical, the former independent of the latter. Paul d'Assier, the Positivist, seems to have proven the fact pretty plainly, not to speak of the accumulated testimony of the ages, and that of the modern spiritualists and mystics. It will be found difficult to reject this fact in our age of proofs, tests, and ocular demonstrations.

— *The Secret Doctrine*, II, 149

In regard to the reference made above, that man has evolved from more ethereal conditions and from a non-physical ancestry — which means the 'pre-existence' of the human race as well as the individual — we may add that the Ancient Wisdom teaches that in doing so he 'threw off,' so to speak, archetypal thought-forms from time to time, which rapidly transformed the living creatures on the terrestrial plane and started new and more advanced types. In fact 'Man,' or the Divine Monad which is the highest principle in human beings, is the *ultimate source of living forms*, and may, in fact, be regarded as the 'second controlling power' which Dr. Broom has rightly divined to be responsible for the tremendous mutations of the Branches of the Tree of Life.

In regard to this great concept of the evolution of form and intelligence, Theosophy is not alone, nor is it uttering a proposition unthinkable or preposterous to the scientific intelligence. In 1930 we received from a Swedish journal the following, which contains the germ of the same idea:

DARWINIAN SUPERMAN: ANIMALS DESCEND FROM MAN. The German Zoologist, Dr. Hermann Poppelbaum of Hamburg, who is giving two lectures in Copenhagen, declares that through his researches he has come to the conclusion that Man does not stand at the summit of creation — as the final result of a long evolution — but, on the contrary, that he forms the *root* of the genealogical family tree. In other words, the animals, and, taken as a whole, all living beings, are to be considered as collateral lines of Man, which have developed, each one according to its own peculiar qualities, specializing in its own direction, while humanity itself has gone straight ahead. *Man is the cause of all living beings*, and the beasts are individually only perverted pictures of Man. This is exactly what Goethe divined and what J. Jensen is now unconsciously approaching.

This tremendously pregnant concept, *i. e.*, that the forms of all living beings down the ages have been 'projected' from Man as their spiritual archetype — first plainly taught in the West by H. P. Blavatsky — is what Dr. Broom and the other progressive biologists need in order to establish their true intuition that evolution is no haphazard process, but has reason, intelligence, and motive behind it.

Summing up his conclusions Dr. Broom says:

The strange course of the history of life on the earth appears to admit of but one explanation: that it has been brought about by spiritual agencies and that the *production of man has been the chief purpose of it all*. Though man as we see him today may be regarded as a very disappointing result of all these millions of years of evolution, we must not consider human evolution as quite finished. Physically

man may change very little in the next 10,000,000 years, but mentally and morally it seems possible he may evolve into almost a new being. Perhaps the end of it all is the production of spiritual personalities or types far beyond any with which we are acquainted and for purposes in the universe of which we cannot even dream.²

It is impossible to go into the entire Theosophical philosophy of Evolution here, but it should be mentioned that the new discoveries of physics which show that our so-called 'matter' is nothing more than 'condensed' radiation, or 'light,' and is impermanent, should make it easy to understand that there are unlimited possibilities of other kinds of matter, and of 'worlds,' infinitely more ethereal than ours, on which life may exist invisibly to our gross senses.³

Our final quotation from Dr. Broom refers to the remarkable change that took place in the history of the world at the close of the Mesozoic or Secondary Period, which transformed it into a fitting abode for Man. After referring to the strange disappearance of many forms of life, including the giant reptiles, about that time, he says:

And just about the same time the [very small and very few] mammals blossomed into a great variety of new forms. Modern types of birds appeared, and butterflies, with the modern types of insects. Whatever the explanation may be, it is interesting to note that about the same time in the world's history, flowering plants with

2. How Theosophical this all is may be illustrated by the following quotation from H. P. Blavatsky's great work *The Secret Doctrine*, Vol. II, p. 170:

"Evolution is *an eternal cycle of becoming*, we are taught; and nature never leaves an atom unused. Moreover, from the beginning of the Round, all in Nature tends to become Man. All the impulses of the dual, centripetal and centrifugal Force are directed towards one point — MAN. The progress in the succession of beings, says Agassiz, 'consists in an increasing similarity of the living fauna, and, among the vertebrates, especially, in the increasing resemblance to man. Man is the end towards which all *animal* creation has tended from the first appearance of the first palaeozoic fishes.' — *Principles of Zoology*, p. 206.

"Just so; but 'the palaeozoic fishes' being at the lower curve of the arc of the evolution of *forms*, this Round began with astral man, the *reflection of the Dhyân-Chohans, called the 'Builders.'* Man is the *alpha and the omega of objective creation.* As said in *'Isis Unveiled,'* 'all things had their origin in spirit — evolution having originally begun from above and proceeding downwards, instead of the reverse, as taught in the Darwinian theory.'"

3. The new scientific claims on this subject would have made the physical scientists of the last century gasp with horror, yet they merely corroborate what H. P. Blavatsky brought forward from her studies in the East and which can be found plainly stated in her writings. See the review of Sir W. Bragg's *Universe of Light*, in THE THEOSOPHICAL PATH for October, 1933.

fruits, edible leaves and roots, spread over the world, birds became apparently numerous, and a great variety of Orders arose . . . the small insignificant mammals branched out into a great variety of higher forms. *It almost looks as if the world in Eocene times came under new management.* . . . But the most interesting point in the evolution of mammals is that by the middle of the Eocene, all the known mammalian orders had already been established . . . so that no new orders of mammals could afterwards appear.

In *The Secret Doctrine*, Volume II, page 736, the origin of the 'root-types' of the mammals is discussed, the method by which the great Orders came into physical manifestation about this time.

We understand that Dr. Broom is now bringing out a book in which his advanced ideas of Evolution as the product of Intelligence will be fully presented. It will undoubtedly attract wide attention and, no doubt, much opposition from the materialistic school. Already his *Presidential Address* has aroused great interest and comment. His book will undoubtedly be extremely useful in support of the scientific reaction against mechanistic Darwinism, with its natural selection, survival of the fittest, and other out-of-date explanations. We shall study it with the greatest interest as it will certainly be a valuable weapon in favor of a spiritual view of life. We have had enough of the mechanistic interpretation of Nature with its supposedly authoritative support of materialism in thought and action. The new attitude of many expert scientists, such as Dr. Broom, will be of great service in spreading the higher ideals of duty and brotherhood so sadly lacking in the world, and will help to eliminate such notions as a prominent politician announced lately when asked what happened to a man after death: "Why, we become fertilizer, of course! Science has no place for a soul!"

Let us hope that after reading Dr. Broom's courageous onslaught upon Materialistic Evolution, or after hearing his arguments, students of Theosophy will not be willing to attach serious importance to such books as come their way which claim that natural selection and all the other arguments are 'proved' and that Man is nothing but 'a monkey shaved,' as the humorist puts it. Those books and arguments have had their day, and have done great work, but the tide is now flowing in the opposite direction. We must return to a dynamic, living conception of the universe, in which the Sun is more than a dead ball of burning gas, and Man more than a beast that perishes.

OCCULT POWER

LEOLINE L. WRIGHT

AN entirely new scope and significance was given to the word 'Occultism' by H. P. Blavatsky. In doing this she literally lifted hundreds of students to a higher plane of consciousness and thus laid the foundations of that new Order of the Ages which thinkers everywhere — outside the ranks of the Theosophical Society as well as within it — are beginning to envision and work for. This she accomplished by showing us the occult basis of ethics — its basis in the hidden spiritual Universe; by demonstrating that there is no true science of the origins and processes of life that is not in its essence ethical in structure and application.

The spiritual occult Universe — occult or secret only because invisible to our everyday senses — is an ethical Universe. It interpenetrates all visible and invisible things. From it everything originates; within its organic boundaries every kind of life that we can know in this manvantara is sustained and unfolds its individual potentialities. We cannot escape this interpenetrating, all-encompassing, root-oneness of existence. Hence the interdependence of all things — the basis of ethics. And hence also, because of actions by us which are injurious to other parts of our common origin, comes mal-adjustment, which is suffering. Only harmony within this occult organism of which we are vital parts will carry the individual to his own highest and broadest and most deeply satisfying self-expression.

It is knowledge of this occult Universe and of our relations with it and with its evolutionary purposes that constitutes genuine Occultism.

What a new light these ideas throw upon that phrase so fascinating to all who are mystically inclined — 'occult power'! Consider too what this expression has meant to unenlightened students of our limited historical era. Occult power has been interpreted largely as a vast secret extension of selfish domination over others who know less. But in H. P. B.'s view it means becoming a self-conscious agent or intermediary of the Cosmic life and purpose.

There are of course the other, lower forms of occult power just referred to. But these, as said, are the extension and intensification of

human selfishness. Because occult in themselves, though of a lower level than the others, they are pitted against their corresponding occult forces in psychic nature. And if a man must suffer for wilful mal-adjustment in normal human life his sufferings when acting in disharmony with more ethereal energies will bring agonies of heart which the sane man will hardly care even to contemplate.

Genuine or spiritual Occultism can be regarded under two aspects: power over one's own energies, and the power to use those energies for the benefit of others. These aspects are of course interdependent. We cannot help others to their best advantage until we understand and have mastered our own capacities. On the other hand, a sincere effort to help will quicken the spiritual potencies of the helper. In all this we see the true significance of power as it develops in the happy wise man. Let us now look more closely into the word 'occult,' for it is here that lie the adventures, the discoveries, and the rewards that flow from the cultivation and exercise of purely beneficent motives.

We are so used to thinking of THE ALL and THE WHOLE merely as abstractions that we seldom realize all that these terms imply. They mean in reality all that Arjuna saw when he was shown by Krishna "the Vision of the Divine Form including all Forms." He beheld the "glory and amazing splendor" of the mighty Being "who may be likened to the radiance shed by a thousand suns rising together in the heavens," whose body contains "the whole universe in all its vast variety."

The 'mighty Being' is our Supreme Hierarch dwelling in its vast organism, which is the Cosmos. This organism is made up of innumerable hierarchies of consciousnesses, of all degrees and stages of development: super-gods, gods, and demi-gods; Divine Creators, Architects, and Builders — down through the spiritual and the slowly concreting psychological and astral organisms and entities which transfer or 'step down' the invisible Monadic Essence into manifestation in the visible worlds. And from a sub-plane of each of these divine, subliminal, and lesser Cosmic planes or elements of being man derives one of his own seven elements or principles.

O Man, know thyself, for within thee are all the planes and realms and powers of the Universe! As each principle or element of our nature is first understood, then controlled and directed, it becomes a vehicle by which the vision and the will enter into and gradually master the corresponding Cosmic elements or principles; and it is reasonable

to suppose that the various degrees of initiation are related to a mastery of these different principles of our own and of the Cosmos.

Help Nature and work on with her; and Nature will regard thee as one of her creators and make obeisance.

But this expansion of consciousness and power cannot be forced or 'grabbed'—to use the word which best expresses a certain attitude of our modern age. For a developing Cosmic consciousness within the student is the result, first of all, of freedom from self-preoccupation. Oh, how entangled we all are in the ancient toils of self! How the insistence of what we need, or desire, or 'ought to have,' or are secretly working for, binds us to the Prometheus-rock and the devouring miseries of life! But once practising, living, and achieving impersonal selfless love—this does its grand inevitable work. Walls of personality and kâmic limitation begin to crumble, and vistas of cosmic sublimity invite the awakening spirit. These forever deepening and expanding reaches of inner Space are the spirit's natural home, as the blue air and the sunlight are the natural home of the resurrected butterfly poised upon the edge of its chrysalis.

Impersonality is the root out of which all thoughts and actions of the student of Occultism should arise: impersonal action—action, that is, from principle rather than desire; impersonal use of the advantages achieved by effort—their use for more insight and strength to help others instead of the advancement of self. And impersonality too in surmounting discouragement; for this view of ourselves shows that even our faults and weaknesses are the common property of the race. They result from incomplete evolution, from our lack as yet of harmonious development and mastery of the Cosmic energies specialized in ourselves. We do not need to suffer personal grief or chagrin because of our failures, but to attack our faults and limitations in the same spirit as we would train a weak muscle or some undeveloped quality of the mind.

So helping and acting, we gradually enter into the Buddhic consciousness within our hearts. In this Buddhic consciousness, which is our individual aspect of the Cosmic Root-Intelligence, the disciple may find all knowledge, all vision, all capacity, and may advance from stage to stage of initiation until he becomes a Master of Life.

The occult powers, then, which the disciple will work for are Cosmic

powers — not within the reach of mere personal ambition or kâmic-mental desire. They follow from the gradual liberation of the 'inner Buddha' which waits within every man's heart, and which cannot manifest in any atmosphere but that of selfless love.

WHY 360°?

LAFAYETTE PLUMMER

THE division of the circle into 360 equal parts called 'degrees' is very ancient. The early astronomers and mathematicians who divided it thus, knew well what they were about, and if we embark upon a short excursion into the mystic Land of Numbers we shall soon learn that there are wonderful correspondences between cycles of time and geometrical form. Let us first study the interesting astronomical cycle known as the Precession of the Equinoxes.

Those who have studied astronomy will recall that the points on the Earth's orbit where it is crossed by the plane of the celestial equator, move slowly westward, making the complete circle in nearly 26,000 years. The number as reckoned by the ancients is 25,920 years. This cycle is known as the Precessional Cycle because the points of intersection above referred to are the points on the Earth's orbit where the planet is at the vernal and autumnal equinoxes, and these equinoctial points move very slowly in the clockwise direction, while the Earth travels once around its orbit counter-clockwise every year. This causes the moment of equinox to come a trifle earlier each year, in other words, the time of equinox 'precedes' that of the year before. Hence the word 'precession.'

The ecliptic is the great celestial circle in whose plane the Earth moves in its orbit, and as the other planets move in orbits whose planes are nearly identical with that of the Earth, these other planets actually, and the Sun apparently, move in the ecliptic. As we move along this circle or track in one year the Sun appears to pass across 12 great constellations called the Constellations of the Zodiac. The ecliptic is divided into 12 equal areas, which take their names from these 12 constellations, and therefore these divisions are called the Signs of the Zodiac. Imagine now the ecliptic (in which the Earth's orbit lies) to be a great wheel revolving slowly in the heavens. The point on the

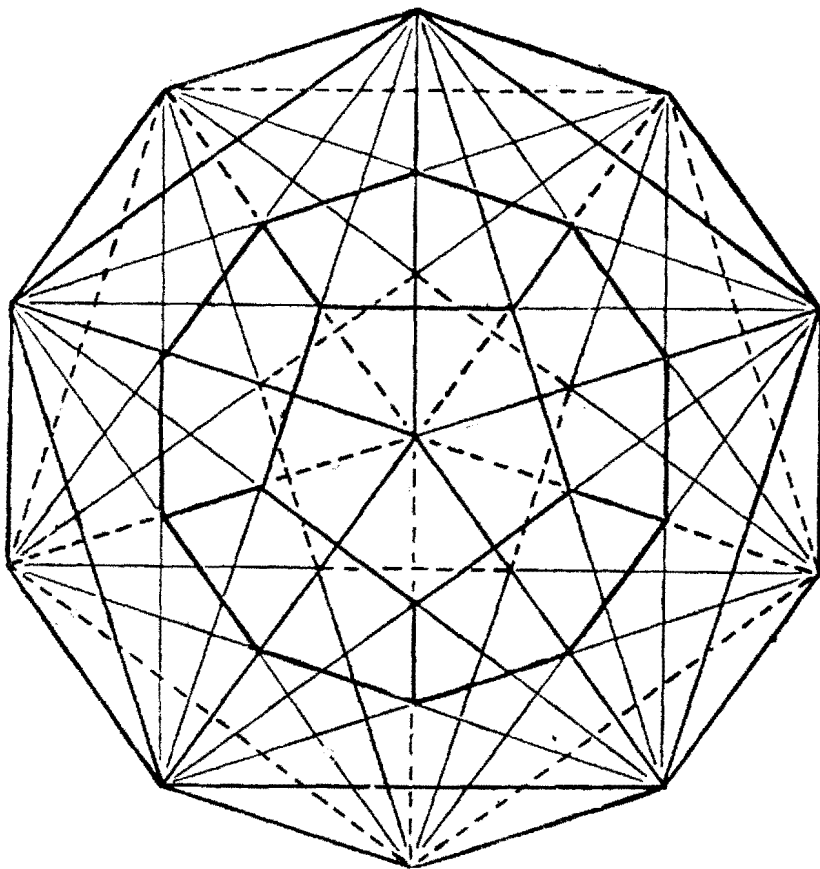
Earth's orbit — and hence on the ecliptic — where the Earth passes through the vernal, or spring, equinox marks the beginning of the first of the 12 divisions, and they are reckoned counter-clockwise, or eastward. Since, as we have observed, the point of the vernal — and consequently of the autumnal — equinox moves westward, we may consider that it carries the ecliptic along with it. The great circle turns round and round in the heavens, and requires 25,920 years to make one revolution. The *Signs* of the Zodiac then move with it because they are a part of it. Thus, the *Sign* of Aries, which begins at the spring equinoctial point on the ecliptic, and which once occupied a position in the sky identical with the *constellation* Aries, has shifted, and is now entering the constellation Aquarius. That is to say, the Sun is now in the *constellation* Aquarius at the time of the spring equinox, whereas it was once in the constellation Aries at the same equinox.

It is obvious that since the first point in the sign of Aries — usually called the 'first point of Aries' — takes 25,920 years to pass around the Zodiac, or across the 12 constellations, it will take one-twelfth of that time, or 2,160 years to pass through one constellation, assuming for the moment that all the constellations occupy equal portions of the sky. This number, 2,160, is extremely important, because it is a basic factor in computing the ages of the Earth, and the Rounds and Races, as also in counting the numbers of degrees in the geometrical solids. Further, the length of the Messianic Cycle, or Cycle of certain Avatâras is 2,160 years. A point of great interest is that the cube, which was anciently held to symbolize Man, has for the sum of its plane angles, $2,160^\circ$. The cube unfolded into a plane surface becomes a cross. At the commencement of the Avatâric Cycle of 2,160 years a candidate for the highest initiation is placed upon a cruciform couch, and while his body remains there, his spirit soars through the inner realms of the spiritual world, reaching at last the 'Heart of the Sun.' When he arises from the couch, he does so as a glorified Adept, a Teacher of Men.

But we have digressed somewhat from the purpose in view, that is, to find out just why the circle is divided into 360 degrees. So let us note that the number 2,160 is 10 times the cube of 6. Now the cube of 6 is equal to the sum of the cubes of 3, 4 and 5. Among the important numbers, the numbers 3, 4 and 5 play a leading part in the building of form. The five regular polyhedrons, held so sacred by the ancients, are built upon the 3, 4 and 5. At some future time, we may

devote an article to the study of these most interesting figures, so we will make but few allusions to them here.

There are five regular solids in geometry. These are: the icosahedron, having 30 edges, 20 equilateral triangular faces, and 12 vertices;



DODECAHEDRON ENCLOSED WITHIN ICOSAHEDRON

Drawn by joining each point of the dodecahedron with every other point.

For best results, hold the diagram at arm's length, and it will stand out as a solid figure.

the dodecahedron having also 30 edges, but 12 pentagonal faces, and 20 vertices; the cube with 12 edges, 6 quadrilateral faces, and 8 vertices; the octahedron having also 12 edges, but 8 triangular faces, and 6 vertices; and the tetrahedron, or triangular pyramid, having 6 edges,

4 triangular faces, and 4 vertices. The numbers 3, 4, 5 and 6 play a very important part in the building of these figures, both as to the numbers of faces, vertices, or edges in them, and as to the numbers of degrees in their angles. These figures are the working out in geometrical form of the same principles which are behind the manifested universe, which, before manifestation, may be represented by the circle. A circle may be divided into 3 equal arcs, each of these into 4ths, each resulting 12th part into 5ths, and the resulting 60ths, into 6 equal parts each, and the whole will be then divided into 360 equal parts, or degrees. Now the product of 3, 4, 5 and 6, or 360, divided by their sum, or 18, gives us 20, a number suggestive of the icosahedron, the most complex of the geometrical solids. Lines may be drawn, joining interiorly all the points of the icosahedron, and we shall find that within it we have a new figure, the dodecahedron. The dodecahedron, having 30 edges as well as the icosahedron, we have now 60 lines. (Note that 60 is the product of 3, 4 and 5.) The dodecahedron was considered to represent the solar system — the 12 faces, symbolic of the 12 Signs of the Zodiac — and the icosahedron, the outer stars.

Suppose, now, that we take a circle, and divide the circumference into 10 equal arcs, suggestive of the 10 planes of consciousness. Join each point with every other point (see illustration), and we have drawn the icosahedron surrounding the dodecahedron! The point at the center of the circle, where some of the lines cross, becomes in reality 2 points, coinciding and forming the north and south poles of the icosahedron.

Now the circle here represents the Unmanifested, which, however, as soon as manifestation takes place becomes 10 Cosmic planes. These Cosmic planes we have learned to divide into sub-planes, 10 in each, as follows: 3 subjective or formless planes; 4 intermediate planes, upon which the globe-chains which belong to that particular cosmic plane manifest; then 3 lower planes of a substance and energy lower in vibration even than the lowest of the seven globes of the planetary chains occupying the four intermediate planes. Thus the planes can be numbered, 3, 4 and 3. (Incidentally, the number 343 is the cube of 7, the number of manifestation.) These sub-planes are not to be considered as layers in a cake, but are interpenetrating. Suppose, then, we divide in this fashion each of the 10 arcs of our circle: first, into 3 equal parts, each of which will be one-thirtieth of the whole, each of these into 4ths,

making 120ths, then each of these into 3rds again, and we have our circle divided once more into 360 equal parts, or degrees.

To sum up, then, we find that the numbers 3, 4, 5 and 6, and also the number 10 considered as the sum of 3, 4 and 3 are of especial interest and importance in connexion with the number of degrees in the circle, because they represent active agents in the constructive side of Nature. The number 12 (the sum of 3, 4 and 5) has a particular function which will require further consideration, but it may here be said that the numbers 11 and 12 represent the zenith and the nadir of any hierarchy of 10 planes, because they represent the higher and lower connecting-points, as it were, between that hierarchy and the ones above and below it. The relations between the numbers are as intricate, apparently, as are the lines of the geometrical figure here illustrated, yet when we have a bird's-eye view of the whole subject, we can see clearly the part that each number has to play.

And we have but touched the shores of the mystic Land of Numbers. We shall set sail again and find out more about the geometrical solids. Wonderful are the lessons we can learn about Nature and her majestic laws, and sublime is the inspiration that will come to us if we approach her with eager hearts, and a love of Truth, free from personal desires.

CAGLIOSTRO

A Messenger Long Misunderstood

P. A. MALPAS, M. A.

X

THE QUEEN'S NECKLACE. CAGLIOSTRO AND THE BASTILLE

TO the end of the nineteenth century, more than a hundred years after the death or disappearance of Cagliostro, popular history had been encouraged to regard this Freemason as a criminal adventurer who supported his designs by wonders and 'magic arts.' Even Masons, who of all people ought to have known better, were often deceived, and passively accepted the threadbare insinuation that he was an unworthy brother. There was a vague impression among the reading public that the reason why Cagliostro stood out in the history of crime was the amazing boldness which caused him in some way to be connected with

the great Diamond Necklace Case — few troubling to investigate the framed-up charge that he was one of the conspirators who appropriated this famous necklace (valued at 1,600,000 livres) in the name of the unsuspecting Queen, Marie Antoinette, wife of Louis XVI of France.

The only excuse for this mischievous libel, if it be an excuse, is that it was deliberately framed by Cagliostro's enemies, and foisted on the unthinking public of Europe by interested parties. Cagliostro appears to be one of those rare characters whose mere presence is the signal for events of national and even universal importance, events whose smallest ripple of effect widens beyond the third and fourth generation — indeed, far into the unseen future.

His mission was simple. It was to help in the work of "keeping alive the spiritual intuitions in man" in the face of an ever-increasing darkness of materialism. The body through which he was to act was the humanitarian and benevolent Society of Freemasons. But, as seems to be ever the case, such work in behalf of independence and liberation of thought attracts the enmity of all that is reactionary and likely to be disturbed in its enjoyment of privilege. The fact that Cagliostro obviously possessed a vast power over the more recondite secrets of Nature, lashed this inevitable opposition to an ungovernable fury. This in itself is an eloquent tribute to his importance. The vast machinery of international vested interests is not put into force against a man of no account.

Cagliostro had absolutely nothing to do with the Case of the Diamond Necklace, and yet he is unaccountably dragged into it until the whole thing in some respects seems to revolve round him — though in an obscure way which no serious historian appears as yet to have attempted to clarify. For this reason it is necessary to enter into a résumé of the circumstances of the case if we are to follow the thread of Cagliostro's life. He seems to have been a kind of human catalyst, precipitating political events, while himself remaining outside all politics. Delicate threads of history, trivial incidents going far back in time, mere bubbles of life, all are focussed, as in a lens, in the great Jewel Case which has been so much discussed; and the picture they throw on the screen of after-events through that lens is like the pattern of a kaleidoscope, with the countries of Europe for the colored fragments.

Another, who was also quite outside the case, and yet was most of all affected by it, was the unfortunate Marie Antoinette, Queen of France.

The hero of the piece is the Cardinal de Rohan, Grand Almoner of

France, and Prince of the Holy Roman Empire. The beautiful villain is the 'Countess' de la Motte Valois, or Valois de la Motte — it matters little, so long as the Valois is not omitted, since this name was her first card in the game. The other actors are puppets in her hands.

It was this Prince Louis de Rohan who in 1870, as Bishop-Coadjutor of Strasbourg, had officially received the young dauphiness, Marie Antoinette, on French soil after her proxy marriage at Vienna to the Dauphin Louis, heir to the throne of France. It was a splendid pageantry; de Rohan was a handsome, fascinating, dazzling nobleman upon whose shoulders the outward traditions of the Church sat but lightly.

Although Marie Antoinette was the coming queen of France she was then but a child of fifteen or so, with all a child's ways; Maria Theresa kept as great a hold upon her as she could, and through her attempted to push in France the interests of Austria — a terribly dangerous thing to do as regards her daughter's future. The agent of the Empress, Mercy-Argenteau, was ever at the young Dauphine's elbow, and as he was an enemy of the Rohan-Soubise family, which included the governess of the royal children, Madame de Marsan, his presence boded no good for the Cardinal so far as it concerned his reception at the Court of Vienna. This Austrian tells Maria Theresa that Rohan is devoted to d'Aiguillon, the Prime Minister, and to his ally, the royal favorite, Comtesse du Barry, and is therefore little fitted for the rumored appointment of Ambassador to Austria. It may be so, yet the lady who ruled the French King was sufficiently powerful to cause even Maria Theresa to recommend her daughter to accept him.

Marie Antoinette told her mother, the Empress, of the rumor of this coming appointment, declaring that Rohan was more of a soldier than an ecclesiastical dignitary. He was then thirty-six years of age and had for nearly ten years shone brilliantly as a member of the French Academy.

And what a magnificent Ambassador this Prince of the Church would make! Many a sovereign would have found it hard to surround himself with such a gorgeous display. Maria Theresa was charmed at first with his simple, polished manner, but she soon turned against him, in accordance with the prejudices of her daughter and her agent in Paris. Powerful as she was, however, she dared not refuse to receive the Cardinal, on account of her daughter's position, though a hint was conveyed to the French court to recommend him to live a little less wildly than was

his wont. The Empress was repelled by his magnificence, his gallantry, his splendid suppers and gorgeous entertainments, his royally-conducted hunting parties, his worldliness. Later, this dislike developed into positive hatred. She went so far as to cause one of the most dignified of the older nobles to make representations to him on the matter. But he replied politely that all fear of a lack of good taste was quite unfounded, and that offense would be given to many were he to cancel his engagements. The total result of Maria Theresa's objections was absolutely nil — which was worse than a defeat. The festivities proceeded as usual, while the Cardinal-Ambassador maintained an air of banter and piercing wit little calculated to appease an irritated Empress, who wrote to Mercy-Argentau at Paris:

Our women, young and old, beautiful and ugly, are bewitched. He turns their heads — so much so that he is delighted to be here and has declared that he means to stop here, even after the death of his uncle.

This uncle was the Bishop of Strasbourg. To crown all, her son, the Emperor Joseph, was fascinated by the Prince-Ambassador-Churchman, the splendid Cardinal.

Such was the strained state of affairs when Rohan discovered that Mercy-Argentau had established a system of espionage by which he learned all that occurred at the Court of France, even in the most private councils. Rohan immediately did the same in Vienna by way of diplomatic reprisal. Through Mercy-Argentau, Maria Theresa demanded Rohan's recall, and she committed the fatal mistake of mixing her daughter Marie Antoinette, the Dauphine, in the matter, by asking her to cooperate in procuring that recall and by prejudicing the girl-princess against one of the most prominent nobles of her adopted country.

Marie Antoinette was very young. Though warned by her mother not to speak of this recall to any except Mercy-Argentau, she told the old governess of the royal children, Madame de Marsan, and suggested that the best way would be for Rohan's own family to initiate the recall. This Madame de Marsan was no less than Rohan's aunt, yet the gay young Dauphine scarcely seemed to realize what a blunder she was committing. It meant that the powerful Rohan family were to be pitted against the House of Austria.

Rohan did not treat Maria Theresa with too much respect, as we have seen, although personally he was politeness itself to all, high and low. In a letter to the Minister of Foreign Affairs, d'Aiguillon, he wrote:

I have seen Marie-Thérèse weep over the misfortunes of oppressed Poland; but this Princess, practised in the art of not allowing herself to be seen through, appears to have sobs at her command. In one hand she holds a handkerchief to wipe away her tears, while with the other she seizes the sword to complete the partition.

D'Aiguillon showed the letter to his friend, the king's favorite, Du Barry, at one of her gay suppers. Its keen wit was applauded and one of the courtiers told Marie Antoinette, who naturally told her mother — and of course it spelt trouble for Rohan. Marie Antoinette never forgave the man who thus made sport of her mother with a quondam milliner's girl. Rohan stayed in Vienna, however, until two months after Marie Antoinette had become Queen of France. Maria Theresa herself expressed disgust even at the idea of Rohan taking formal leave of the Austrian Court. She wanted only to know that he was out of the country. His successor was the Baron de Breteuil, and this means everything in view of future history. Of the latter the Austrian Empress said:

Breteuil may meet with some trouble here, so much are people prejudiced in favor of his predecessor, whose partisans, gentlemen and ladies without distinction of age, are very numerous, including even Kaunitz [the Chancellor] and the Emperor himself.

Rohan looked upon his recall as an outrage and did not forgive Breteuil for succeeding him; for he suspected him of having had something to do with his, de Rohan's, downfall. He attacked Breteuil with unmerciful raillery; but the latter, stern and silent, bided his time.

Marie Antoinette was only a girl, in her youth almost irresponsible, and as a girl she had her favorite friends, and life was very pleasant for her. Then one day she woke up to the fact that her delightful friends were the focus of a host of ambitious seekers after wealth, favors, offices, titles. She was saddened by the knowledge. One family or faction had, almost to the last individual, acquired wealth, influence, and power through a relative, her dearest friend. Henceforth she began to seek Austrian friends rather than French.

"At least *they* ask me for nothing," she said pathetically, when reproached with favoring foreigners; and the breach between her and her adopted people widened.

Now there was a beggar-maid, a country wench, who begged while her father poached and stole. The misery and indigence of the child and her family could hardly be exaggerated. She was accustomed to being thrashed on her bare back by her mother until the rod broke —

and perhaps the wretched creature remembered this when the public executioner followed the mother's example later, after her brilliant but evil star had set! Yet she was, distantly, of the blood of the Valois, being a descendant of Henry II by an illicit connexion which was, however, later legitimized. And her pretty face and musical voice, coupled with the common knowledge that she was a scion of royalty even though on the left hand, attracted attention to her.

One day as, barefooted, she begged by the roadside there came driving up a fairy-godmother in the person of the Marchioness Boulainvilliers, who stopped the carriage and, after questioning her, exclaimed: "A daughter of the Valois? Impossible!"

But it was true, and the Marchioness ended by sending the child to school. Later she apprenticed her to a dressmaker. Perhaps the child remembered that after all, the Comtesse du Barry, the uncrowned, unofficial queen of France had been only a little milliner! In any event, she certainly dreamed of greater things, and complained from time to time of being washerwoman, watercarrier, cook, ironer, needlewoman, and of fulfilling other variously useful, if humble, offices. The Marchioness allowed herself to be interested in advancing Jeanne and her sister, and in 1776 she had the girls' descent officially authenticated and obtained for them from the king a pension of eight hundred livres. It may be that this was one of the favors asked of Marie Antoinette that the latter so resented. It seemed like a stroke of good fortune for the beggar-girl; yet the truth was that eight million livres would not have sufficed to satisfy her ambition.

Finally the sisters were placed by their benefactress at a finishing school for young ladies — a convent. They did not relish the situation much, and when the Superior put forward the idea of their taking the veil, they ran away.

Madame Surmont, a buxom dame who delighted in maintaining a sort of local 'society' leadership, was persuaded to open her home to the 'neglected princesses' then in the local grog-shop, where they had taken refuge. They were so poorly clad that the first night she had to lend them her own too ample dresses. The girls needed no further invitation, and (Jeanne was a dressmaker) turned up the next morning clad in very serviceable frocks made by cutting up the garments loaned by their benefactress!

Mme Surmont had invited them for a week; they stayed with her

for a year. At the end of that time Jeanne found it necessary to marry, somewhat in haste, the nephew of her hostess, a young gendarme of the king's guard. This was Marc-Antoine-Nicolas de la Motte, who had often visited Mme Surmont's house and had given Jeanne lessons in declamation for their little theatrical parties. The twins, born a month after the marriage, did not live long. Mme Surmont made the young couple leave her house, and they lived for a short period with de la Motte's sister, Madame de la Tour. Jeanne sold two years of her pension for 1000 francs and with 600 livres belonging to de la Motte they started life together.

It was now 1781, and the Marchioness de Boulainvilliers was staying at Strasbourg as the guest of Cardinal de Rohan. Jeanne sought her out. She forgave the runaways and consented to introduce Jeanne to the Cardinal at his palace of Saverne.

Madame de la Motte told her story well. Rohan promised her his protection and de la Motte was given a captain's commission in a regiment of dragoons commanded by the king's brother. He is described in the commission as 'Count,' a title he adopted without any claim whatever, but which served him well enough, for there really was a family of Comtes de la Motte and nobody troubled to question the title. After all, plenty of people did the same, and it sounded well when, later, the 'Count and Countess de la Motte' entered Paris.

Rohan was strangely placed. His secretary was the Abbé Georgel, a Jesuit. He himself was a Cardinal, but from his manner of life few would have suspected that he was an ordained follower of the religion of one who had not where to lay his head. He was the typical courtier, nobleman, Maecenas, and man of the world, rather than a prelate. Yet in spite of his social gifts he was not invited to the court of Marie Antoinette. Once a year only, on the Day of the Assumption, had he the right and duty, as Grand Almoner of France, the highest ecclesiastical dignitary in the kingdom, to say mass before the King.

But Rohan, like so many other illustrious men of the time, was interested in, and powerfully attracted by, 'occult' studies and arts, alchemy and the like, which seemed in no way incompatible with his orthodox standing. What more natural, then, that on hearing of Cagliostro's extraordinary medical cures in Strasbourg, and the bitterly jealous attacks of the official and orthodox physicians, who only too often failed where he cured, who charged heavy fees where he healed with-

out price and even gave his patients money if they needed it, Rohan was impressed. He sent to Cagliostro to request an audience, but the physician declined to go.

"If the Cardinal is ill, let him come to me and I will cure him; if he is well, he has no need of me and I have no need of him," was Cagliostro's ungracious reply, a reply that was obviously a test of the Cardinal's sticking powers and sincerity. He passed the test successfully. The Cardinal then declared that he was affected with asthma and needed Cagliostro's medical help. The physician went to him.

Fantastic and ridiculous tales were afloat about Cagliostro at this time, and it is not impossible that there was some slight foundation for some of them, for Cagliostro had a keen sense of humor and his hearers often had not. Much that he said in jest may have been seized upon as seriously meant, and in addition, all alchemists of that day, in countries where the ecclesiastics were bigoted, felt obliged to speak symbolically or in parables. At one time a formal deputation of serious and highly educated men who waited on him reported that although he did not speak French perfectly, he spoke it "in the manner of the prophets of old." They had been much impressed.

Cagliostro was a sparkling conversationalist, with a dozen sides to his character, apparently; one keen observer said that it was impossible to describe his features as he had a dozen sets of them! So we find this noble-hearted humanitarian credited with claiming an age of many centuries, with having been a contemporary of Jesus of Palestine, with being the Wandering Jew, and in short any other thing that occurred to the wits of his day or to the gossipers who were without wits.

The foundation for this may have been veiled suggestions, or even private teachings about Reincarnation which at that time in Europe had been long forgotten and as far as the public went, was unknown. While confused with these tales were similar stories told about Count Saint-Germain. Then too, there doubtless were those among his pupils who were foolish enough to repeat literally his *symbolic* utterances — symbolic precisely because such inconstant featherbrains could not be trusted with the real teachings until they had learned to be cautious. Among the alleged million or so of his pupils (these are the figures given by his enemies) there must have been many who were not ready to study the hidden mysteries of Nature and of human nature as they actually exist.

Having by his intuition broken down the first wall that separated

them, and having refused to be rebuffed, Rohan was offered every opportunity to learn the true 'Secret Science.' Yet, rich as was Rohan, Cagliostro was always the richer, for he paid his way to the last sou and gave much away, never accepting a present or any payment, unless the refusal of such a present would hurt the delicate feelings of the giver; in which case he accepted it and almost immediately found an excuse to give one in return of much higher value. Even Rohan, the rich churchman, declared to a lady who had not the wit to keep her tongue quiet on the matter, that Cagliostro had the power and the means to make him rich beyond the dreams of avarice. More to the point, he declared openly that from him (Rohan) Cagliostro had never accepted anything.

The stage is now set for the first act of the drama of the Diamond Necklace. From Strasbourg Cagliostro went to Paris, and there as elsewhere, he was the lion of the day and of many days. But he was dignified and reserved — unless some poor sufferer needed his help, for he was truly 'the Friend of Humanity.' He refused invitations to dine with the king's brother, the Count of Artois, and with the Duc de Chartres, Prince of the blood.

They formed a curious group — Cagliostro, the Cardinal, Georgette the Jesuit, and Madame de la Motte, the adventuress.

Gradually, artfully, indeed artistically, Jeanne de la Motte began to lay her snares for Rohan, who had money. She wanted it — she always did. Her first trade had been begging, and it suited her very well; but she was beyond the apprentice-stage. She realized that to beg successfully one should do it 'in a carriage and pair.' At this time it so happened that some of the ancient lands of the Valois had come into the hands of the Crown; this gave Jeanne an excellent opportunity to pester the Court with her petitions. Her far-seeing eye saw that there were favors to be had from the Queen and her entourage, if only she could gain a *point d'appui*. But there were others of the same profession, and she needed to be original in her methods. Waiting with a petition in the antechamber of Madame Elizabeth, the sister of the King, the Valois fainted 'from hunger' at the psychological moment. The ruse succeeded well in a small way, and resulted in her pension being increased to nearly double the original amount. In point of fact, at times she was nearly starving, and when by chance she managed to be invited to a restaurant she devoured ravenously whatever food came in her way. Yet she kept up appearances as the first requisite of success. The petty and sordid

schemes to which she resorted are a history of adventure in themselves.

A similar ruse was tried with the Comtesse d'Artois later, but without success, so in February, 1784, Jeanne flew at higher game, and pushing through a crowd, went into convulsions before the Queen, just as the latter was going to mass. There was so much commotion that the plot missed fire and subsequent 'convulsions' failed to attract the desired attention.

As nothing particular came of this hanging on at Court, and as she had no entrée, she adopted the simple expedient of *saying* that she had. She was now the 'Countess of Valois,' a favorite of the Queen, of Madame Elizabeth, of the Comtesse d'Artois. She dined with them — in a cheap restaurant, at twelve sous a meal! She made out her cheap lodging to be a reception-room at the Palace; an altercation with the landlady over the rent became an interview with the Queen; her spendthrift imagination ran riot. Some knew of this roguery and even went so far as to warn her that it was criminal. But this only made Jeanne more cautious, for she was more determined than ever. She realized that a reputation of 'influence at Court' was worth solid cash to her. And so it proved. She was given magnificent presents by rich firms in the hope of influencing the Queen's favor. She also obtained a good deal of credit; which was useful, even when she had to pawn the goods so obtained in the next street.

Meanwhile Rohan was helping her, backing bills, giving and 'lending' her money, and being generally bamboozled by her. She soon realized that the one desire of his life was to obtain the Queen's favor — destroyed by Maria Theresa and Mercy-Argentau, and the unfortunate letter he wrote to d'Aiguillon. This was a trump card; the next step was to turn it into cash.

It was not a difficult problem, after all. With her reputation of being in touch with the Queen, she rewarded Rohan for his presents and loans with Court gossip, invented as needed. Gradually and delicately she built up a bogus story of the interest taken in him by the Queen, of a desire on Marie Antoinette's part to investigate the Mercy-Argentau reports, and of the Queen's willingness to justify Rohan and take him back into favor. Jeanne had a 'Secretary,' one Villette, who was an adept in handwriting, so in due time there was established — to all appearance — a private correspondence between Rohan and the Queen, with Jeanne as the confidential intermediary. Messages, hints, and

blue-bordered notes passed at due intervals, and the Cardinal began to believe that at last he was to be restored to favor and to his true position at Court,—all through the ‘influence’ exerted by Jeanne de la Motte!

The adventuress did not hesitate to use the trick of the blue-bordered notes to ask Rohan to send money to the Queen through her hands. Needless to say, such money never reached her Majesty. In August, 1784, Jeanne received 50,000 francs as a first instalment, and by a coincidence at that very time she blossomed out into a *grande dame*. She actually sent Rohan out of the way, to Saverne, by these notes, saying that it would help his restoration to favor at the right moment if he disappeared from Paris for a while. It is astonishing how easily Jeanne played upon his devotion to Marie Antoinette.

(To be continued)