

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

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GOOD AND EVIL

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WHAT should a Theosophist answer to the question: "Is there any definite demarcation between good and evil?" I have the picture in mind of some querulous old-fashioned theologian, who might say: "Dear me! These Theosophists have no ethical standard! They say that good is relative, and evil is relative; they don't recognise a universal standard of conduct — and that is absolutely wrong!"

First let me say that Theosophists recognise a very clear-cut and sharp difference or demarcation between good and evil. We call the former the right-hand path, and the latter the left-hand path. Nevertheless, we say that good and evil are relative, because the imperfect human consciousness cannot comprehend absolutes; and if any sublime good a human being could conceive of were to be called 'absolute good,' it would be nevertheless uttering a sheer fallacy in reasoning; because no human consciousness is capable of comprehending, that is to say understanding, absoluteness or quasi-infinity. The same thing exactly may be said with regard to what men call evil. It is our human under-

standing and innate sense of right, which instruct us concerning what, on the one hand, we call good actions, *i. e.*, those conformable with ethical human consciousness and conscience, and actions of the opposite type or character which appear to our human ethical consciousness or conscience as being inharmonious, destructive of kosmic or human law and order, and therefore we rightly say that the latter is evil.

To propound the thesis that there is an absolute good would involve the ineluctable contrary thesis that there is an absolute evil to set it off, or to exemplify or define the former by opposition or contrast. This would introduce a specific fundamental duality in the Universe, running back to the kosmic beginnings of things but nevertheless a duality based upon imperfect human consciousness and reason; for it is the human consciousness, ex hypothesi, which here does the reasoning and erects The Theosophist, nonetheless, most emthese dual quasi-infinities. phatically recognises duality as beginning with the very first activity of the Kosmic Logos of our Universe; but this kosmic duality in activity is on so high a spiritual plane that it is sheer human foolishness of reason to envisage this kosmic dual activity as being what men call 'good' or 'evil.' When this kosmic duality manifests itself in human consciousness, or in those things exterior to human consciousness which men can recognise, then only may men rightly call it good and evil, because signifying human choice in following spirit on the one hand, or matter on the other hand. Essentially of course and from the kosmic standpoint, it would be wrong to say that spirit is 'good' in the human sense, or that matter is 'evil' in the human sense, for this is misrepresenting the two activities inherent in kosmic manifestation. This kosmic duality on the relatively low plane where human conscience or consciousness can recognise it, is, because of the imperfection of human understanding, so utterly contrasted in both character and activity from the primordial differentiations of the activity of the Logos, that it is absurd to conclude that the kosmic or logoic duality is the same as the duality recognised by human consciousness, which men call 'good' and 'evil.'

I can imagine many intellections, many consequent actions, and many activities in the lower hierarchies of the Universe which, because of our imperfectly developed human understanding, we would call 'good' or 'evil,' but which in themselves, *per se*, may be quite the contrary of our human understanding of them. Yet while this is so, let us also recognise the fact that the gods, the very gods themselves, have a standard

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of ethics — employing human language — which, if the beast could reason about it as we men do, would be a fundamentally natural standard of ethics for them; and similarly so for all the innumerable hierarchies or active hosts of manifested being. What is this essential or fundamental standard? It is the difference between fundamental harmony and fundamental inharmony, the difference between uprightness and crookedness: in other words, so far as entities are concerned, the difference between acting according to the inherent spiritual laws of the Universe *i. e.*, in accordance with universal harmony — and acting contrariwise thereto. The former all beings would call essential 'good' and the latter essential 'evil.' We Theosophists, and indeed all other men, instinctively recognise this and accept it.

But let us not forget that our human 'good' may in very truth be to an archangel, for instance, what that archangel might call something sinister and evil. The Dhyân-Chohans' or archangels' sweep of consciousness and measure of values are so great, as contrasted with the human, that even the human best would be to it sheer evil, relatively speaking. Similarly, what a man would call 'good,' a beast, with its instinctive sense of differing values might call evil and sinister. This is what we Theosophists mean when we say that 'good' and 'evil' are relative, not only in themselves, but to each other. This is because the sense of proportion of values, of realities, shifts with the status of the cognising entity — a fact known to every thoughtful man and exemplified in the changing values even in human life, for what one era may call good, a succeeding era may call desperately bad. Even codes of ethics, codes of morals, while excellent for those who follow them, become outlived, outworn, with the passage of time. The proper rule to have, therefore, is always to follow the noblest that the human spirit can recognise, having a constant eye to something still nobler, still higher, still more harmonious, and a striving to follow this loftier and therefore more truly real standard.

The Theosophist certainly has a standard of ethics based on Nature's own spiritual and other inherent laws; and this is the standard that we Theosophists try to teach; recognising, however, that all things called 'good' by us, we call so because of our understanding them as good, due to our humanly developed comprehension; and similarly recognising that all things that we humans call 'evil,' we so call because of our humanly developed understanding. The savage has one standard or code of

ethics; the civilized man has a somewhat different standard or code of ethics; but ethics *per se, i. e.*, meaning by this word 'ethics' the instincts of the human soul for righteousness, for harmony, for law and order, are based on the harmonious structure of the Universe imperfectly reflecting itself in the structure and operations of human consciousness. He who violates these laws of spiritual and even physical Nature will pay the penalty even to the uttermost farthing, simply because the mighty weight of both the spiritual and the physical Universe is against him. Contrariwise, if he do aright, and live in accordance with the laws of right and harmony, all the Universe is back of him; and he can then exclaim, as the famous Christian preacher once did: "God and I are a majority." Only be sure that 'God is on your side,' which means, be sure that you are not misplacing the spiritual and ethical instincts of your soul with merely human conventions or standards derivative from racial or national history and prejudices.

It thus becomes apparent, or should become so, that what men call 'good' and 'evil' are of course relative. It is we human beings who say: "This is good; and this is evil." This choice shows a striving of the ethical instinct in the human heart; but it does not prove that the speaker is always right in his choice! He may err through imperfections of judgment, and thus work injury upon his fellows. Our hearts must be filled with modesty in these matters, and with a recognition of our fallible, because merely human, understanding. As pointed out above, a god might say that our 'good' is very 'evil' indeed; a god might say that what we call 'evil' - for instance, possibly, a change in outworn human laws - might be 'good'; but because of our imperfectly developed human consciousness we have only relative standards to go by; and therefore we must affirm that all that human beings can say as regards actions or thoughts is relative. Consequently good is relative, and evil is relative; because all we know about them is what our imperfectly developed human consciousness tells us about them.

This does not mean that we should abandon our standards. Quite the contrary. We should search our souls carefully, and hold fast to that which is good and abhor that which is evil according to our ethical instincts. But we should always be on the alert to learn more, and to change our codes and standards if our ethical instincts show us something better, nobler, higher, and purer.

There is no absolute 'good' and no absolute 'evil' in the Universe;

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for in either case it would merely mean what the imperfect human consciousness conceives as 'absolute good' or 'absolute evil' — these being intellectual and perhaps partly emotional pictures or figments of the human ethical imagination. But nevertheless and despite all this, the Theosophist recognises and teaches as a primal law of the Universe that essential right is eternally right, which means harmony with the Universe: harmony with its structure and operations; and again, that essential wrong or crookedness is eternally wrong, because signifying disharmony, deviation from the kosmic rule, arising out of selfishness, which is itself perennially wrong.

Furthermore, the Theosophist recognises that if he injure some other being or some other human, all the weight of Infinitude is against him for causing this disharmony, for upsetting Nature's equilibrium; and that therefore he will have to repay, some day and in some way, with cumulative interest, but nevertheless very justly, for all the wrong that he has done, for all the crooked and inharmonious thoughts and actions that have been had and carried into effect. In exactly the same way the actor will receive recompense, guerdon, reward — in other words, essential justice — for the good that he has done, for the sufferings that he has undergone when striving to be upright, to think uprightly and to act uprightly.

It is because of this fundamental and essential law of spiritual and physical Nature, continuously seeking to restore harmony and order, i. e., equilibrium, that we Theosophists say that ethics are based on the very structure of the Universe: on its operations, on its 'laws,' on its inherent tendencies, and therefore on its fundamental essence.

To sum up: In the eyes of the Theosophist, ethics or morals are something more than mere human conventions, as the mere words themselves etymologically signify, because based, as said above, on the operations of Nature's own divine-spiritual heart. Nonetheless, no true Theosophist will ever wilfully ignore human conventions, nor despise or refuse to conform to codes of ethical conduct which the experience of the human race has established, and most of which have been based upon, or have issued forth from, the teachings of some great Sage and Seer; but he strives ever to attain to, and therefore to follow, a still nobler standard than even the best that the human race has yet evolved. All beings instinctively follow natural ethics in accordance with their respective understandings. The beasts, for instance, such as the dog or the horse,

have a 'code' or a tacit understanding of what is to them upright and of what is to them justice; and, as everyone who knows beasts well will recognise clearly, woe to the beast who wilfully violates the code of ethics of its own kind!

So is it with men. Men have codes of ethics, of morals, of conduct, to which the wise man, the just man, gives his assent, and to which he will readily conform, although constantly seeking a nobler path than even the noblest that the human race has yet followed. The gods again, following the same instinctive urge flowing forth from the heart of divine-spiritual Nature, follow their own particular ethical or moral urgings, and doubtless conform to divine codes or standards arising from such instincts: yet were a human being to come to know and to understand such a standard of the divinities, and were he to essay to practise it upon earth, it would be doubtful if his ways would be allowed to be ways of peace, or if his fellow-men would listen to him with patience and tolerance.

Thus, therefore, while the Theosophist recognises that the noblest human code can always be bettered, and in future ages certainly will be improved, nevertheless he aspires to follow the still nobler Rule which is imbodied in the great ethical teachings of the Sages and Seers of all past times, to wit: to love one's fellow-men as oneself - nay, better than oneself; to speak the truth at all times and in all places, unless checked by the dictates of pity; to live a clean life, thinking cleanly and therefore acting cleanly; forgiveness of injury done to us, and an avoidance of injury to others, leaving to Nature's own laws the adjustment of the disturbed equilibriums; compassion towards all who sorrow or suffer, and an attempt to alleviate their burden; avoiding envy and the consequent dislike of others; refusing ever to take, whether by direction or indirection, what does not belong to one, at the expense of others; refusing to calumniate, or falsely to criticize or disparage, the life or work of others, and being as severe in judgment of one's own faults and failings as one should be charitable to the faults and failings of others - in general, to follow the Golden Rule of doing unto others what one desires should be done unto oneself; or, as perhaps better expressed in its negative form: Do not unto others what you desire that others should not do unto you.

SCIENCE AND THEOSOPHY

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

UNDER this broad title it is proposed to offer some remarks upon a topic of much current interest in Theosophical circles — the relation between Theosophic thought and scientific thought. The issues are frequently obscured by misunderstandings and vagueness on both sides of the question; indeed the real issue is often not so much between Theosophy and Science as between knowledge and ignorance, or between clarity of thought and haziness. Both as to Theosophy and as to Science there exist what may be called popular misconceptions, so that the controversialists on either side are often fighting men of straw and combating views which their opponent does not hold. We will therefore try to present concisely and clearly the positions of Theosophy and Science respectively, and to indicate the relations between them.

IS SCIENCE LEADING OR FOLLOWING?

Science is rapidly changing and enlarging its views; and if it claims to be leading humanity, it cannot consistently deny having in the past misled them. In the past it has striven to force upon us a world-view based upon the mechanistic system which is used as a means of physical discovery. It is now urging upon us the necessity of a more adequate world-view. A question arises as to whether Science is reforming society, or society is reforming Science; or, whether in the past it was Science that dragged down society, or vice versa. Leaving this issue as an open question between the champions of Science and those of Sociology, we may state the view which Theosophists in general will take.

The evolution of mankind, both socially and individually, is due to the natural growth of man. For, to a Theosophist, man is essentially a divinity, seeking to express its own inherent attributes by manifesting them in this visible world. Man is accomplishing his own evolution, by the exercise of his own creative powers of will and imagination. This evolution is not a blind purposeless mechanical process, but is performed consciously, and for the most part by particular individuals who lead the way for the generality of mankind. We say then that humanity is evolving very rapidly just now, and that this evolution is manifest in Science, in social ideas, in Religion, and elsewhere. The issue as to whe-

ther one or another of these departments is leading may be avoided by forbearing to divide human interests into departments at all, by considering these interests as one whole, and by pooling our efforts in behalf of a common cause of expansion.

UNITY OF THE FIELD OF KNOWLEDGE

The field of knowledge is essentially one and single, but is divided into compartments for special purposes. The utility of such a subdividing is maintained so long as we do not forget the fact of the subdividing; but disappears whenever we try to expand a special subdivision into an area inclusive of the whole. We shall be led into error if, by too closely scrutinizing the part, we lose sight of its relation to the other parts and to the whole.

The special department of inquiry known as Science has now come to a point where it has been found necessary to pay more attention to its relation to other divisions of the field of inquiry, and to speculation as a whole. This is shown by the deluge of books now being poured forth by leading minds. What is the most striking feature of these books? That they reverse the policy of older books of Science. And how? The older books made no pretense to define their philosophical position; they either started straight in, on the basis of assumptions tacitly assumed as common to writer and reader; or else gave a page or so of very crude axioms and postulates. The assumption was that physical objectivity must be considered as real and invariable; we were supposed to be studying a fixed external object by means of a set of perceptive and reasoning faculties of uniform and invariable pattern.

But now every book has introductory chapters dealing with questions formerly relegated to the special departments of philosophy or metaphysics; indeed the whole book may be permeated with this topic. For it has been found that our customary methods of research have carried us beyond those limits wherein it is possible to maintain the former delimitation; and that, before going farther, we must pause to examine the nature of our sensory impressions and the mental conceptions which we have framed on their basis.

SUBJECT AND OBJECT

So Science has become philosophical; and there are some who proceed cautiously step by step, and others who, as soon as they feel their wings sprouting, soar too high and lose contact with the solid ground. What is the nature of the problem to be solved?

"The co-operation of Subject and Object results in the Sense-object or phenomenon." There is something outside of us, and something within us; and these two, coming together, result in a percept; and this last is what we study. The word 'matter' thus acquires a variable meaning: it may mean (1) the Object, upon which the senses act, thus producing the sensation or Percept; or (2) it may mean the result, the Percept. In Science it has so far meant the former; for, in Science, matter has been supposed to exist in itself and independent of whether we perceive it or not. But now Science is becoming idealistic, and matter is coming to be regarded as an appearance, produced by the action of our senses on something outside. This being so, can we be sure that the animals see a world like the world which we see? Both experience and reasoning suggest the answer that the world which they see is *the same but different*. The insects probably live in an entirely different world. No two human beings perceive exactly the same world; for some it has no color. Nature is what we make it; there is something outside us, but we clothe it, each one differently.

According to Theosophical views, the universe contains *planes*, or levels, or grades, or spheres; and on each of these planes there is the duality of Subject and Object; or, in other words, there are grades of matter, each responding to, or co-operating with, a corresponding grade of sense-perception; this co-operation resulting in a perception. But we are warned against a too facile application of the law of analogy.

As the modern Idealists would say, the co-operation of Subject and Object results in the Sense-object or phenomenon. But this does not necessarily lead to the conclusion that it is the same on all other planes; that the co-operation of the two on the planes of their septenary differentiation results in a septenary aggregate of phenomena... The Secret Doctrine, I, 329

The reasons why we must not make this assumption need not detain us here; it is sufficient to know that the principle holds true as far as the physical plane is concerned. The point then is that science is now recognising more fully the need of examining into the sensory factor in phenomena. But in thus speaking of the sensory factor, we must include those mental conceptions which we have derived from our sense perceptions, those pictures, those imaginary constructions, which we have made by extending the concrete into the realm of the abstract. For in-

stance, we have regarded motion as being relative to an imaginary fixed point, or fixed scaffolding of space; and are now told that we must not postulate any such fixture. If two men meet on the street, they are moving relatively to each other, and each of them is moving relatively to the ground. But if two men should happen to meet in the boundless wastes of space, it would be impossible to say which of them was moving and which was standing still, or whether both were moving; in fact the question would have no meaning; we can only say that they are moving relatively to each other. Time had been regarded as a one-dimensional unidirectional current flowing along independently of space; but now we are told that time is somehow mixed up with space in a way that bothers most people and makes a hash of the spatial and temporal adverbs in our grammar-book. We none of us know when or where we are; and it is hopeless to fix a time for arriving anywhere, if the place is going to move before we can get to it, and we cannot even be sure that the time will not stretch or contract. Such jokes illustrate the way in which liberty can run to license; but Science has merely executed a few necessary repairs, thrown down a few temporary partitions, or added a new room or two. Its procedure can be as orderly as before.

ORGANISM VERSUS MACHINE

The mechanistic philosophy characteristic of Science in earlier days is fast receding. It had been found convenient to picture the universe as a system of masses in motion, and to establish mathematical relations explanatory of the movements of these masses. Certain 'quantities' were also established, for measuring mechanical energy, thermal energy, electrical quantity or potential or resistance, etc., and certain 'coefficients' introduced; and by this means an exact method of calculation for practical purposes was built up. There was no harm in this; on the contrary, it was useful and perhaps necessary; but trouble arose when the artificial and provisional nature of this system was forgotten, and the attempt was made to formulate these mechanical principles as general laws applicable to the whole field of human experience. Thus we got several mechanistic (or 'materialistic') philosophies, based on the mechanistic procedure of Science. The entire field of speculation was colored thereby, with disastrous effects upon our social and moral wellbeing. Science is now more fully realizing its mistake; and for the moment we will leave open the question whether Science, in taking this new

departure, is leading or following; whether its new course is the logical fulfilment of its own evolution, or whether the change has been forced upon Science by the resistless power of the evolving consciousness of man.

The prevalence of the mechanistic philosophy has brought into being a contrast between machines and organic beings; between living matter and dead matter; between chemical and physical forces on the one hand and vital forces on the other. In the wish to obliterate this duality, some have tried to define life as a kind of chemical or physical action, and to represent living and conscious beings as merely complicated machines. Science, having studied phenomena from a mechanistic aspect, investigating and calculating the visible effects, while ignoring their causes, had accustomed itself to thinking of Nature as a blind and purposeless mechanism (an idea surely worthy of Alice in Wonderland, or Gilbert and Sullivan).

It is now occurring to many leading scientific minds that the duality between organism and machine might equally well be got rid of by abolishing the machine. Thus, instead of thinking the universe is all machines, we can think it is all organisms.

The Universe an Assemblage of Organisms

This is a simplification, a generalization, worthy the ambition of the most scientific mind. It is the view of Theosophists, and it is the view to which men of Science are fast tending. It is the view of antiquity (that blessed word 'animism'!); it is surely the view of common sense. It was the view of a few superior minds in our own past,¹ some of whom will be found quoted in *The Secret Doctrine*.

How many natural processes, once defined as chemical, are now

1. For instance, the late Dr. Borden P. Bowne, Professor of Philosophy in Boston University, regarded the universe as an assemblage of 'persons.' We have before us an article by him in *The Independent* for January, 1903, called 'The Recession of Mechanism,' in which he shows that the mechanistic philosophy, being untenable, is receding. Naturalism recognises only five factors in its account of things: space, time, matter, motion, and force. This excludes a large part of Nature; we can tell what Nature can do only by observing what she does; if we attempt to impose upon her arbitrary limits, which have been devised for special local purposes only, we shall see only the delusion in our own mind. Real existence must be conceived either under the form of space and time or under the form of conscious intelligence. The former is phenomenal. We must "interpret real causality in terms of living intelligence."

known to be the work of living organisms — fermentation of various kinds, decay! It is found that things cannot even decay or 'go bad' if all microbes are excluded. The boundary between organic and inorganic has never been detected, and is not likely to be — for it does not exist. We first declare that two things are separate, and then set ourselves to explain why they are not separate. The category 'inorganic' must be abandoned. All is organized. What Science studies is the phenomenal workings of intelligences — of intelligent beings, rather, since the word 'intelligence' denotes an abstraction.

The Whole and its Parts; the One and the Many

In the mechanistic philosophy the whole is simply the sum-total of its parts, in an arithmetical sense. We can pull a watch apart, and then build up the parts again into the same machine as before. But can we do this with a piece of bread? Even in chemistry there is a well-defined difference between a mixture and a compound. When hydrogen is mixed with oxygen, we obtain merely a mixture of the two gases; before water can be produced, something else must happen. To explain why water is sometimes produced and sometimes not, we have theories as to chemical affinity, thermo-chemistry, and (later) electro-chemistry. All these devices are attempts to build up an original unity out of the parts into which we think we have analysed it. T• a Theosophist it might seem that water is a pre-existent entity, and that the union of oxygen and hydrogen furnish the conditions for its manifestation on the physical plane of objectivity.²

Life has been treated as though organisms were machines. Foods have been analysed, and the material parts administered separately, to the detriment of health; and mistakes have been discovered and to some extent rectified. Education has been broken up unduly into departments and subjects, as though knowledge were not one whole but could be attained by adding together separated fragments. In general we suffer from the tendency to study things apart from their surroundings; and imagine that, in order to obtain a just view of anything, we must *isolate* it. We have broken up the human being into body and mind and feelings, each of which is to be treated separately; we speak of a sound mind

^{2.} It has been found that perfectly dry and clean oxygcn and hydrogen will not unite to form water. In other words, water cannot be formed unless it was previously present!

in a sound body, and try to find the connecting link between mind and matter; when actually the two were never separate: the division is artificial, and man is one organic being. This disease of thought is responsible for errors and consequent afflictions in every department; and must be expunged from Science, Religion, Sociology — even from the minds of Theosophists if found there.

HIERARCHICAL CONSTITUTION OF THE UNIVERSE

If this word 'hierarchical' be thought exotic, we will quote the following from a review of a book on business organization: "Typical is the so-called hierarchic form of organization, where, as in the Church or Army, authority is delegated through a series of subordinate officers." So the word has a recognised and duly sanctioned meaning. As Theosophy reasons from mind to matter, rather than from matter to mind, it will naturally seek in matter the same plan as it finds in mind. If human beings are found organized on the hierarchic plan, other parts of the universe will be similarly organized. Hierarchic organization will be a general law.

What handier type of a hierarchic structure can we find than our own personal constitution? Here we see the One and the Many rightly co-ordinated. Without, for the moment, analysing the human being any deeper than his familiar self-conscious personality, we may take that provisionally for the supreme hierarch of the system. He has supreme control, while under him come grades and orders of lesser agents, performing their proper functions according to the laws of their own being, yet in harmony with the ruling plan. This holds good whether we view the process mentally or physically. The physiologist will trace out for you the various structures and organs and their relations with each other; he will tell you that those small units to which he has given the name of 'cell' are little living organisms which live their lives and yet fulfil the purposes of the whole machine and its hierarch. Seen from the mental viewpoint, this becomes a master-mind working through orders of lesser minds. It is not essential - not likely even - that all the lesser minds should be aware of the purpose, or even the existence, of the supreme mind. Each may be living its own life, accomplishing its own purpose, submitting to the limitations imposed on it, not knowing their source, calling them perhaps 'laws of Nature.' Here is a clue to the problem of free will and necessity: man is free to do what he likes; yet

the purposes of the Supreme are accomplished. This hierarchic plan is a master-key unlocking mysteries in Science and all human affairs.

CONSERVATION OF MATTER

"All trustworthy experiments, without exception, have been found to lead to the conviction that matter is unalterable in quantity by any process at the command of man." (Tait) The quantity of matter in the universe is always the same; matter cannot be created or destroyed; it merely changes form. The truth of this proposition depends on the definition we give to 'matter.' It is said that we can now make matter out of what was once thought to be not matter. If we say that we can create matter out of energy, then the proposition is contradicted; but if we call energy a form of matter, the proposition still holds good. If we define matter as that which cannot be destroyed, the proposition becomes tautological. In truth 'matter' is a vague word (*varium et mutabile semper*, like some other beings pertaining to the plastic side of Nature!) It stands for an aspect of Nature, and may be either Object or Percept (see above, under 'Subject and Object'); also its range may be greater or less, according to what is included and what excluded.

Tait (Properties of Matter, 1885) says: "In the physical universe there are but two classes of things, Matter and Energy." What does he do with the other things? He says: "Time and Space, though well known to all, are not things. Number, Magnitude, Position, Velocity, etc., are likewise not things. Consciousness, Volition, etc., are not physical." This is enough to show how very little philosophy satisfied scientists in those days. The claim of Science to be grounded in certainties, as opposed to deductive systems, finds no justification in the light of the above. For, apart from the vast number of things left out, the two left in — matter and energy — can hardly be regarded as more than postulates; so that, whether we begin with them, or with will and ideation, we are equally constructing a system based on postulates. There can be no objection to such a course, provided we bear in mind the nature of these preliminary data, remembering that they were assumed for special purposes. But if we forget that matter and energy are postulates, and allow ourselves to regard them as fixed realities, we may be tempted to use them as a foundation for the universe in general. Thus we get a fictitious universe, created on the assumption that there are two fixed realities, energy and matter. Why not create another system, based on will and mind as primary data? They are not harder to define than the other two.

CONSERVATION OF ENERGY

"The quantity of energy in the universe is constant," roughly stated; or, in exacter form: "The total energy of any body or system of bodies is a quantity which can neither be increased nor diminished by any mutual action of those bodies, though it may be transformed into any one of the forms of which energy is susceptible." (Maxwell) As a familiar illustration, we may take the case of 'transformation' of mechanical energy into thermal energy. An apparatus may be constructed which uses up a measurable amount of mechanical energy and develops a measurable amount of heat energy. These amounts being measured in appropriate units (say ergs and calories), it may be shown that a given quantity of mechanical energy always produces a constant quantity of thermal energy; and a coefficient, called the mechanical equivalent of heat, is introduced for the purpose of making equations.

In similar ways, by proving uniformity of results and introducing coefficients, we have been able to track down energy that was apparently lost and to balance our accounts. Excellent as a code of rules and set of formulas for the engineer or chemist; but as a philosophy of the universe? What of moral energy and mental energy? Do they come into the system? If so, what are the coefficients which relate them to the other forms of energy? Can we measure conscious volition in terms of some unit, and calculate the exact number of ergs or watts which will invariably be yielded by a given quantity of the volitional energy? Can we even apply the formulas to the growth of a seed? It is evident that life as a whole cannot be interpreted by such a formula; fortunately, the necessity for living and for using common sense prevents the attempt to apply them in actuality, although in speculation they do give rise to damaging theories that run counter to Nature.

Another point to be made in connexion with the doctrine of the Conservation of Energy is that we assume too much if we say that one form of energy is *transformed* into another. We may be able to show that an equivalent quantity of one form of energy appears when another form disappears; but what meaning can be attached to the word 'transformation'? The attempt to find a meaning leads to the conviction that what we call forms of energy are but the manifestations of something that eludes us. That elusive something must be common alike to mechani-

cal movement, heat, light, electricity, sound, chemical action, etc. Possibly we may call it 'vibration'— which is an abstraction, as are also its concomitants of 'mass,' 'acceleration,' etc. What is the ultimate and invariable physical basis wherein physical phenomena inhere?

The Running Down of the Universe

Though energy, as alleged, cannot disappear, yet it is said to be always running down into unavailable forms or states; the 'system,' in the above definition, though still containing its original amount of energy, has now a greater amount of 'entropy.' The illustration is that of water running down to a dead level in the ocean. Will the universe eventually run down into such a static condition? But it has been pointed out that, when we say energy has become unavailable, we only mean that it has taken a form in which we have not vet found out how to avail ourselves of it; so perhaps we may some day find out how to avail ourselves of this at present unavailable energy, and thus snap our fingers at the second law of thermodynamics. Water that has run down into the sea can be lifted up again by the sun, and clocks can be rewound. If the universe was ever started, why cannot it be started again? That pregnant symbol of the serpent swallowing its tail indicates that, just as end follows beginning, so beginning follows end. The second law of thermodynamics reveals by a shouting silence the existence of a potent something beyond energy, and underlying the abstract term 'availability'; so that Science itself provides ample opportunity for the poking in of a divine finger, and the Almighty *interferes* with the laws of Nature about as much as the clock-winder interferes with the clock. If we should make bold to interpret Nature by its manifestations in our own person, we might be tempted to ask what it is that makes a man rise from sleep, and infer that a like volition suffices to render unavailable energy available once more.

What is an Atom?

People often attribute to Science views about the atom which Science has never held, and which are really popular misconceptions. Newton postulated a hard material particle, created as such by the creator; but he merely postulated it as a basis for his dynamical system and did not presume to inquire further. Any discussion of the atomic theory, such as that by Clerk Maxwell in the ninth edition of the *Encyclopaedia*

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Britannica, will show that ideas which are sometimes said to have been recently adopted by Science, are in reality much older. It was of course realized that a physical rudiment of matter, endowed with the same properties as matter, and differing from it only in size; though it might be convenient as a basis for certain physical and chemical calculations, could not be regarded as an explanation. For, if the atom is itself material, then we do not explain materiality by postulating it; and, if it is not material, then it is something totally unlike a hard round particle. Most of the properties of matter are defined as functions of its atomic structure; but the atom itself, if it has no atomic structure, cannot have these properties. Thus we cannot attribute to it elasticity, so long as elasticity is defined as a tension among particles. Nor can it expand or contract. Whether it has a back and front, a top and bottom, is doubtful; for, if it has no parts, how can one part be behind or below another? Owing to its extremely small size, removing it altogether from observation, we have to extend our metrical notions into the domain of imagination. All this was logically foreseen, and has of course been confirmed by experiment. Experiment has shown that mass, density, velocity, energy, and the other data and quantities used in the equations of molar physics, acquired different meanings and different mutual relations. But we continue to make ideal pictures of an atom, as though it were a small extended body; and to subdivide it into smaller bodies, getting incredible results as to mass and other properties.

What Theosophists say about life-atoms would seem to be in no wise strange to the scientific view; neither are they anything at all resembling material particles, and we can but call them centers of energy or of living fire. They are the building-bricks of the universe, and in them we find the common factor of the so-called organic and inorganic worlds.

ACTIO IN DISTANS

To the objection that there can be no action at a distance, it may be answered that, according to the hypothesis of discontinuity — the atomic hypothesis — there can be no other kind of action except action at a distance. If atoms are separated by empty space, then it is of no account whether the distance between them be a billionth of a centimeter or a billion kilometers. If one atom can influence its neighbor, it may just as easily transmit its influence across the universe. And if we attempt to evade this difficulty by providing an 'ether' to serve as a mean

of intercommunication, is this ether atomic? If it is not atomic but continuous, then why is it necessary to postulate it at all, since the same explanation might have been given as to the structure of matter. If it is said that a body cannot act where it is not, we can reply with the question, Where is it?³

Evolution

Theosophy depicts the genealogical chart as a tree, with root, trunk, stems, branches, twigs, and leaves; and Science is approaching this idea by gradual but sure steps. Fact is bound to support it. Prejudice will take a little time to uproot, but generations of younger scientists are born. Careful study of natural facts has shown that living types do not tend to pass into other types, but tend to differentiate in their own type. Older ideas would have us believe that the leaf produces the twig. the twig the branch, and so on; newer ideas show the trunk as the oldest, the branches as springing from it, and ever greater and greater differentiation and divergence as taking place as we move from the origin. Thus the human stem is at once the oldest and most primitive; it is farther evolved because it is oldest. The more lowly organized types have sprung from it — not as it is now, but as it was in bygone time. From the fact of the analogy between the human organism and the lowlier organisms, we may argue with equal validity either that the latter sprang from the former, or the former from the latter. The rest of the evidence favors the conclusion that the lower types sprang from the higher. If the higher sprang from the lower, then we must conclude, either that something is created out of nothing, or that what comes forth into manifestation must have existed before in latency. This last is covered by the phrase "the unpacking of an original complex" (Bateson).

The difficulty is entirely avoided by regarding the human stem as the fount and origin. Man has always been human, but in far past ages, when even matter itself was different from what it is now, the human body had a different form and different properties. It was able in those times to throw off from itself seeds or germs, and it was these which gave rise to the numerous animal-stems. During the long intervening ages, each of these stems has been evolving along its own line; and this is the reason for the great diversity and specialization now found among

^{3.} In *The Secret Doctrine*, I, 487, Stallo is quoted as follows: "As Stallo justly observes, there is no physical action, 'which, on close examination, does not resolve itself into *actio in distans'*; and he proves it."

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them. They have developed peculiar specializations which would be of no use to man: e. g. trunks, horns, armor, etc. The older hypothesis had to devise some theory to explain how these specializations came to be discarded: natural selection, the survival of the fittest, adaptation to environment. It is evident that the evolutionists had some truth mingled with much error; but scientific hypotheses are admittedly provisional and subject to alteration. Since Darwin's times many such alterations have been made, and always in the direction of the truth as outlined in Theosophy. The future will show further developments in the same direction.

NOT A MECHANICAL PROCESS

What has been said about the folly of trying to interpret Nature as a mechanical process applies with special force to the question of evolution. Even if evolutionists had discovered the method of evolution, they would still be in ignorance both of the cause and the purpose. Methods cannot accomplish anything of themselves; a thing so obviously true in our daily affairs must be equally true throughout. For lack of common sense in this respect, the doctrines of evolution have run into obscurity and absurdity; but a simple application of common sense clears things up at once. And here again we take our own conscious experience as the starting-point of our reasoning. The universe is a society of living organized beings, and each one of these is fulfilling a destined evolution. Behind every physical form, whether it be the smallest organic rudiment we can discern - atom or cell - or whether it be a being who has attained self-consciousness - man - there is an invisible soul or monad or center of consciousness or atom of life (for we can but use inadequate terms); and each being stands at a different stage in its agelong evolution, and is pursuing the functions proper to that stage. Every atom will eventually become man; and yet man himself throws off atoms. All evolution is cyclic, circular, spiral - another of the fundamental laws of the universe.

If evolution be viewed from this viewpoint, the facts which observation ascertains will be found no longer to contradict theory but to support it. What Theosophy does, in bringing forward this very ancient doctrine, is to supply an interpretation of Nature which will fit the facts; and it appeals to the reason of such of its hearers as have no prejudices to bolster but desire plain truth,

Animism

From what data are we to start our chain of reasoning? The nearest approach we can make to a reality, as starting-point, is a person. Physical properties are attributes of mind, and mental properties are attri-The data of inductive science butes of persons — conscious beings. are percepts, and even this in a highly restricted sense, for it is only the physical senses that are considered. Science, beginning with a host of abstract terms, such as space, time, matter, motion, force, and the like, may justly be regarded as highly metaphysical and speculative, in spite of what is said to the contrary. Ancient peoples, and many existing peoples have regarded, and do regard, the universe as being animate; and this belief has been christened 'animism,' and defined as the endowing of inanimate objects with sense. In other words, we first declare living beings to be dead, and then invent a theory to explain why other people believe them to be alive. Animism is common sense; and it is we who are the peculiar people. Our belief might be designated 'mortalism,' and defined as the habit of endowing living things with death.

MATERIALISM AND SUPERNATURALISM

These two form an inseparable pair, each necessitating the other. They are characteristic of minds which separate life into a duality. A portion of our experience is designated as 'natural,' according to the laws of Nature. Therefore anything happening outside that limit has to be called 'supernatural,' 'miracle,' 'occult phenomenon,' etc. People embracing Theosophy retain their old conception of the world, but add a new story above it, called the 'occult world,' in which the ordinary laws of Nature are set aside and supplanted by other laws. But what we have said above regarding the basis of scientific philosophy shows that, however mysterious this occult world may be, it cannot be more mysterious than the world we live in. Whether we start our philosophy with Parabrahman and Mûlaprakriti, or with atoms and space, makes a difference in words, but in little or nothing else. Every familiar phenomenon is, as far as explanation goes, wrapped in profound mystery. The whole universe of knowledge is equally occult throughout; the real division is between what is familiar and what is unfamiliar in experience. Is not the attraction of a piece of iron for a magnet an occult phenomenon? Science, in trying to formulate something that may pass

for an explanation, may seek to resolve a 'pull' into a 'push'; though it may puzzle others to see just how a push is more easily explained than a pull, seeing that no two masses or atoms can ever be in contact. Scientific psychology may try to explain human desires as manifestations of the physical force of attraction, conveniently forgetting that this latter has not been explained. What is to prevent us from reversing the process, and explaining the physical attraction of the magnet and steel as a manifestation of desire? As we must assume something, why not assume that there is a universal irresolvable principle called 'desire,' which has the effect of bringing things together?

IS THEOSOPHY PRACTICAL?

GERTRUDE W. VAN PELT, M. D., M. A.

IN this so-called practical age, Theosophy is quite frequently pushed aside by more than one class of minds. From the point of view of the rushing man of affairs, it may answer, perhaps, for the drones, the dreamers, or those whose day of activity has closed, but in the real concerns, in the battle of conflicting interests, in the arena of our throbbing life, it has no place. The philanthropist likewise often passes it by as something too remote from the crying needs he yearns to fill, or the acute suffering he seeks to alleviate. And many would-be reformers of the thousand and one wrong systems, if they think of it at all, forget it the next moment. But to the Theosophist it is the quintessence of practicability. It is pragmatism in its perfection — the easy road to accomplishment. It is the purifying leaven, which, if it permeated and saturated all human consciousness, would transform this black age into a golden age.

These observations are not intended to underestimate the noble efforts of philanthropists directed toward the correction of human ills in any and every direction. Indeed it is impossible to overestimate them. Without the modifying influence of these corrective agents in our human fabric, it is difficult to see how it could have held together. The debt we owe to the large-hearted souls who have stemmed the tide of disintegration is immeasurable. We see them everywhere sprinkled over the human soil. Through self-denial, through devotion, even through martyrdom, we find those in all walks of life who have dedicated all

their faculties, great or small, to the service of their fellow-beings. And yet, great as is their number and service, we find them outnumbered and outdone by those who tear down their work or neutralize it, and the result is our present civilization which we are now striving to save.

We must, for long years to come, perhaps, have those who will feed the hungry, fight crime, care for the mentally disabled, and struggle to keep harmony and peace, but some must, at the same time, be working at the roots of these evils, if our race is to progress. It is as much a folly to be forever cleaning up the results of mental and moral disease, without removing the disease itself, as it is to be content with mending leaks in river embankments instead of finding a way to direct the waters into safe channels. The Theosophical Movement exists for the purpose of working upon the *causes* which produce human suffering, and therefore claims to be not only the most serious, but the most practical, movement of the age.

Permeating the thought-life of western civilization is the belief, even though not always realized, that every man is separate from his fellows; that he has to struggle for his place on the planet, even if he has to outwit his neighbor to obtain it. I will quote from an article by H. P. Blavatsky, the Messenger of the ancient Wisdom-Religion in this era, in which she, in turn, was quoting M. Emile Burnouf, the French Orientalist:

"If the T. S. [Theosophical Society] succeeds in refuting this pretended law of the 'struggle for life' and in extirpating it from men's minds, it will have done in our day a miracle greater than those of Sakyamouni and of Jesus."

And this miracle the Theosophical Society will perform. It will do this, not by disproving the relative existence of the law in question, but by assigning to it its due place in the harmonious order of the universe; by unveiling its true meaning and nature and by showing that this *pseudo* law is a 'pretended' law indeed, as far as the human family is concerned, and a fiction of the most dangerous kind. 'Self-preservation,' on these lines, is indeed and in truth a sure, if a slow, suicide, for it is a policy of mutual homicide. . . This is what the 'struggle for life' is in reality, even on the purely materialistic lines of political economy. Once that this axiomatic truth is proved to all men; the same instinct of self-preservation only directed into its true channel will make them turn to *altruism* — as their surest policy of salvation. . . .

The 'struggle for existence' applies only to the physical, never to the moral plane of being. . . .

It is not violence that can ever insure bread and comfort for all; nor is the kingdom of peace and love, of mutual help and charity and 'food for all,' to be conquered by a cold, reasoning, diplomatic policy. It is only by the close brotherly

union of men's inner SELVES, of soul-solidarity, of the growth and development of that feeling which makes one suffer when one thinks of the suffering of others, that the reign of Justice and equality for all can ever be inaugurated. . . .

When men will begin to realize that it is precisely that ferocious personal selfishness, the chief motor in the 'struggle for life,' that lies at the very bottom and is the one sole cause of human starvation . . . they will try to remedy this universal evil by a healthy change of policy. And this salutary revolution can be *peacefully* accomplished only by the Theosophical Society and its teachings.— Lucifer, II, 427-9

Further, in alluding to the social "hurricane" to come, H. P. Blavatsky states that the weakening of the feeling of separateness can be achieved only by a process of inner enlightenment. This is the gist of the whole matter. The world has never lacked the teaching of the purest ethics. Certainly enough children have learned the Golden Rule through all the centuries of this era to have assured its practice, were this alone needed; but there has not been inner enlightenment. Through the Dark Ages people could be frightened into obeying the laws made by those in authority. Their minds were under subjection. But as the race moved out of this clouded cycle and began to feel its power, doubt arose in the minds of many as to whether they had been told the truth about life; whether they really would be eternally burned if they did not believe thus and so. And gradually, as the doubts grew, their basis for ethics, which at best had been but an unsubstantial dream, dissolved like a cloud, and left them standing on the cold, dreary platform of materialism — that platform upon which, really, the whole structure of dogmatic religion and 'salvation by faith' rested, because its fiber was selfishness. Only those who through their intuition sensed Truth more or less clearly, prevented a general moral collapse. But it was a terrible period of awakening through which we passed. H. P. Blavatsky wrote in 1889:

Such is our century, so noisily, but happily for all preparing for its final leap into eternity. Of all past centuries, it is the most smilingly cruel, wicked, immoral, boastful and incongruous. It is the hybrid and unnatural production, the monstrous child of its parents — an honest mother called 'medieval superstition' and a dishonest, humbugging father, a profligate imposter, universally known as 'modern civilization.' This unpaired, odd team which now drags the car of progress through the triumphal arches of our civilization, suggests strange thoughts.— Lucifer, IV, 186-7

This "struggle for existence" policy has run its course. It has been tried to the limit, and has reached its climax in the agony of the last few years. Probably all but the criminals, who are its harvest, and those

who do no thinking, realize that a new start from the bottom up, with basically new methods, is essential unless we propose to end in extinction. Gradually the nebulous race-consciousness is shaping the thought that we must carve out our destiny on a new plan. It may at first take form under the perception that selfishness does not pay. The more people we serve, the more will serve us. That is something, indeed much, to learn, and if the idea pervades the social system, it may lead to something greater — or, since it is only selfishness disguised, it *may*, after a certain success is achieved, drop its mask, and revert to the policy which in truth it never abandoned.

Really, what we must have is an entirely changed mental front. We have to see that the Golden Rule is no mere convention. We must perceive the logic, the reason in it. We must realize not only the folly but the *impossibility* of disregarding it, and we must be fired with an enthusiasm to live it. The time has passed for unsupported platitudes: people want to do their own thinking. They are asking *why* they suffer, and see neither justice nor sense in the answer that it is the will of God. In fact, it is because so many have repudiated this image of God held up by dogmatic religion that, in the reaction, they have allowed themselves to be stranded in the insanity of materialism. On the other hand, an increasing number are waiting for the true answer. It is these who will hail Theosophy, the ancient Wisdom-Religion, man's heritage, which has been restated at certain important cycles from the beginning of time.

No reflecting individual will deny that every center of human life will take on the color, or will be the expression, of the thoughts of the human beings who make up that center. In other words, the conditions on all planes of activity; the direction of all human energies; the whole social framework, will be determined by the thought-life of the humanity of any section or period. Physical life is but externalized thought. No legislation, no armed force, can run counter to it for any length of time, and never, even though it may produce temporary results, can it effect real reform. The re-forming must be made in the mind first, and then, practically, the whole thing is done.

H. P. Blavatsky said in the early eighties of last century, that she came to break the molds of the minds of men, and at the same time she restated the old philosophy which this race had forgotten, so that there might be a possibility of directing man's thought into normal and healthy channels. She came to establish in the minds of men the conviction that Brotherhood is a FACT in Nature, and she claimed that the philosophy upon which this fact rested was not compiled by her from the various exoteric philosophies, but that it was delivered to her *in toto* by men millions of years in advance of our civilization, who, in turn, had received it from yet more lofty Beings — the Guardians of the human race.

Now, it will no doubt be admitted that if the philosophy so presented *could* establish in the minds of men a belief in the fact of Brotherhood, it would result in more *practical* benefit than any surface removal of suffering, however necessary this latter may be. If further, it could bring about a general recognition of the law of consequences, and throw vitality into the old teaching, 'as ye sow, so shall ye reap,' its value would be as evident to everyone as it is to those who have been watching its effects.

The question is, have results, so far, sustained this claim? We must all realize that the soil into which the seeds were planted by H. P. Blavatsky in the closing years of the last century, had more diseased than healthy elements, and that the seeds had to come to the surface under tremendous odds. Yet even so, they have borne rich fruit already by virtue of their virility. The conception of the unity of all life, which was not only contrary to the trend of thought before H. P. Blavatsky's day, but was a new and unpopular idea, now crops up in unexpected places, modifying old sects and creating new ones in which old prejudices mix with new ideas floating in the air. Reincarnation, then rarely heard of in the West, is now a household word and accepted by thousands who find it a rational explanation of life. Materialism, which was a clog in the wheels of progress in the last century, is rapidly dying out. It is true that many bizarre manifestations of the belief in other planes of consciousness beyond the physical --- strange, uncanny developments of psychism — have come to the surface, whose direful influence Theosophy is now here to combat, and against which it utters intelligent, grave, and emphatic warnings. It was, perhaps, to be expected in the general shaking up, that all sense-perceptions beyond the physical should be mistaken for something spiritual. Egoism and separateness had, as has been noted, fastened themselves in the race-mind with such gripping power that they had well-nigh strangled the faculty of discernment. Under such conditions in this transition-cycle, it is not surprising that at first we should see these well entrenched beliefs shifting from one plane to another; that we should show them up in ourselves in their in-

finite transformations, some hideous, some superficially attractive, before they could be transmuted into impersonal love. But admitting all this, it is yet evident that, though vice may be as rampant as ever, there has also been a growing awakening of the sense of responsibility toward one's fellow beings. The ideas with which H. P. Blavatsky charged the thought-atmosphere have taken root wherever the soil was fertile. Old ideals have been shattered, and rapidly, though painfully, we are creating new ideals.

That which may be said to be the foundation of the thought-structure which is destined to remodel and purify our social system is the conception that the Universe is actually one organism. Anthropomorphism and an impossible extra-cosmic God are thus wiped out and man is shown his place as a part of the Whole. There is abundant literature now published by the Theosophical Society explaining the interdependence of all forms of life; showing that everything lives in everything else; that separation is logically impossible. The numerous teachings which support this basic fact, or rather, which are its different aspects, reach into every corner of the mind in an orderly sequence; deal with all the problems of life; and make clear that the Law of Laws is self-forgetfulness. Thus, the Golden Rule is shown to be not simply a beautiful sentiment - the platitude it had almost become - but a statement in spiritual science. If man uses his free will persistently to disregard it, and does not learn from bitter experience, he must realize that eventually he will be crushed by the overwhelming reaction against him of the whole Universe. For the Universe, which is compact of intelligences of infinite grades of development, is the absolute, supreme expression of co-operation. It could no more exist without mutual helpfulness than a complicated machine could function if all its parts were not perfectly co-ordinated, and the fate of men who attempt to disregard this fact, would be the fate of some loose screw in the wheel of destiny. Being a part of this organism, man must fall in place and work with Nature or be crushed; but once this is done, all is changed. Then the old injunction, "give up thy life if thou wouldst live" hints to him of the bliss of harmony; of the joy of freedom and expansion; of the ease of moving without friction amidst life's conflicting currents.

All of our evils are due to selfishness — individual, national, racial selfishness. The mad race to grasp things for ourselves, as if each were a unit separate from his fellows, has all but brought us to the verge of

destruction. Is not, then, a sane, logical effort to wipe out this delusion of separateness, the most practical of practical things? Unless this can be accomplished all else is futile. And the only way it can be effectively, permanently, and radically done must be by telling men the truth about life. Men must know the truth about themselves. The veils which have cut off all knowledge between birth and so-called death must be torn away, so that men may walk with surer step and greater dignity, so that indeed "the truth shall make them free." They must learn that they themselves create their conditions, and that only they can improve them. They must get a glimpse of the vistas of greatness and glory before them and be fired with the divine desire to lose themselves in this greatness.

But how, it is asked, is one to know that Theosophy is really the statement in human language, for these times and conditions, of the Wisdom of the Gods? Often is this question asked with an implied suggestion that it is unanswerable; but, in reality, the answer is very simple. Naturally, those only who are searching for truth will find it, and it is they who will test what is presented to them by their experience and general knowledge. Truth must satisfy their minds, their hearts, their sense of logic, and must certainly not conflict with common sense. Having tested, each one must pronounce the verdict for himself. Dogmatic assertions from another can never help or lead to real growth. Every man must do his own thinking, just as he must do his own eating, and as to Theosophy, even after it is accepted as a guide to truth, the earnest searcher will find, ever and ever, a larger, broader conception in the words which imbody the ideas. There is no finality for thought, nor can man rest content with thought alone. Unless it expresses itself in action, real growth and understanding cannot follow. In the words of a Master of Wisdom:

Theosophy can only find objective expression in all-embracing code of life, thoroughly impregnated with the spirit of mutual tolerance, charity, and brotherly love. — Quoted in Lucifer, IX, 6 (September, 1891)

We are passing through a critical transition-period, with the scales perhaps not yet finally weighted and the outcome not yet clear. Who knows what tremendous issues may be trembling in the balance? The Theosophical teachings reveal that we are emerging from a cycle which has brought much sorrow into one of great length, whose character will be determined by the currents now being charged by the humanity which

sends them forth. The Masters of Compassion, it is said, though unable under the Law to interfere with man's free will, are doing their utmost to help men to free themselves. It is for this that they have sent again the ancient Wisdom-Religion through their Messenger, H. P. Blavatsky, who wrote in 1889:

If Theosophy prevailing in the struggle, its all-embracing philosophy strikes deep root into the minds and hearts of men, if its doctrines of Reincarnation and Karma, in other words, of Hope and Responsibility, find a home in the lives of the new generations, then, indeed, will dawn the day of joy and gladness for all who now suffer and are outcast. For real Theosophy is ALTRUISM, and we cannot repeat it too often. It is brotherly love, mutual help, unswerving devotion to Truth. If once men do but realize that in these alone can true happiness be found, and never in wealth, possessions, or any selfish gratification, then the dark clouds will roll away, and a new humanity will be born upon earth. Then, the GOLDEN AGE will be there, indeed.

But if not, then the storm will burst, and our boasted western civilization and enlightenment will sink in such a sea of horror that its parallel History has never yet recorded.— Lucifer, IV, 188 (May, 1889)

THE SCIENCE OF NATURE

OLUF TYBERG

PART V --- THE MATHEMATICAL METHODS OF PHYSICAL SCIENCE

I T is generally recognised that the knowledge of the Laws of Motion lies at the root of all the different branches of Science. This knowledge has been acquired from experimental methods with the aid of three dynamic factors, usually referred to as fundamental and classically known as *matter*, *space*, *and time*. *Matter* (or force) is measured in units of weight, *pounds* or grams; *space* (or distance) is measured in units of length, *feet* or *centimeters*; and *time* (or period) is measured in *seconds*. These three measurements are recognised by physical science as elements and are referred to as 'independent variables.'

The measure of a complete performance is defined by the term work, W, and is determined by the product of weight, f, and the distance, d, through which the weight moves. W = fd. Hence work is expressed in foot pounds when the English system of measurement is used and in gram centimeters when expressed in terms of the metric system. It is only when we wish to know the rate at which the work is done that the introduction of the measurement time becomes necessary. For this purpose the term power, P, was introduced and defined as work divided by time. $P = \frac{w}{t}$. Hence power is derived from work by dividing either foot pounds or gram centimeters by seconds.

$$\frac{\text{foot pounds}}{\text{seconds}} \quad \text{or} \quad \frac{\text{grams centimeters}}{\text{seconds}} = \text{Power.}$$

In the above statement is presented one of the more elementary methods in what is generally known as physical mathematics, and it was with the aid of such methods that the laws of motion and the theories of classical mechanics were established. As these methods were universally accepted and the theories based upon such methods generally recognised by all the other branches of scientific research, it is to the pronouncements of physical science that we owe our present conception of, and attitude to, Nature.

After many repeated assurances that the laws established by physical science were founded upon exact data, that they had been thoroughly tested and had never been found wanting, additional discoveries made it evident that such assurances could no longer be sustained. When finally the physicists themselves were prepared to admit this, they did so by informing the general public that the foundation of physical science was incorrect when applied to very large and very small scale phenomena. As the analytical methods pursued by science were not questioned, the only inference possible from such a statement was that the laws of Nature vary according to size.

To account for this assumed difference, Einstein introduced his famous theory of relativity, by means of which it became possible to determine with mathematical accuracy the difference between so-called invariant and relative mass. While we shall have occasion to refer to this theory as we proceed, we may mention here that Einstein for purposes of confirmation applied his theory to the revolution of the planet Mercury. This enabled him to account for the 43 seconds of arc per century, which the old theory was unable to explain. This and other proofs provide us with additional evidence showing how the movements in Nature can be described and measured with marvelous accuracy, but fail to bring us any nearer to a satisfactory understanding of the movements themselves. The particular value of this interesting and instructive theory as presented is the valuable service it rendered in calling attention to certain mistaken premisses upon which Newtonian mechanics rested, and in paving the way for a new and more receptive attitude to Nature by

scientists in general. Incomplete as the theory so evidently is, it points out a distinct difference between a terrestrial mechanics based upon and applicable to the methods of man, and a celestial mechanics applicable to every movement produced by Nature whether in solar or atomic systems. It should be noted however that this new theory does not supplant the older theories, but is gradually being superimposed upon them.

According to Einstein, Nature is a four-dimensional space-time continuum in which no point has any fixed position. The theory recognises that all physical objects are continually subject to change, that they exist as mere happenings at any given time and place, and hence are to be referred to as *events*. The theory of relativity assumes that in order to determine an event it must be co-ordinated by four numbers, derived from the three dimensions of *space* and the one dimension of *time*. On this basis Einstein introduced a mathematical technique in which there appears to be no more difference between *length* and *time* than between *length* and *width* and which, as such, differs widely from the mathematical methods of Newtonian physicists. It is these two kinds of applied physical mathematics that we shall try to consider in order to determine their relation respectively to Nature on the one hand and to pure mathematics on the other.

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During the last century we were repeatedly told that the dynamic factors, *matter*, *space*, *and time*, were as old as mathematics itself and it was even suggested that mathematics was founded upon these factors. Whether *work* is done by man or by machine, by wind, water, earth, or fire, by electricity or chemical transformation, these factors have proved themselves a valuable guide. It is evident that man has obtained the knowledge of their use from Nature, whose actions we recognise in physical movements and in physical growth and decay; and although we cannot readily measure growth or determine the actual unit value of these factors, they are nevertheless constantly revealed to us at the same time as they enter and play an important part in all our daily doings.

Because of their fundamental relation to physical science and also because scientists from time to time have expressed the opinion that all physical facts eventually can be expressed and explained with the aid of these factors, it would be reasonable to suppose that the question of their use in physical mathematics had been carefully considered, that the factors themselves, and their relation to each other and to Nature, were thoroughly understood. Upon closer inquiry it becomes quite evident that this is not the case, but that the mathematical methods of physical science largely have been taken for granted. For no sooner do we begin to study these methods than some strikingly grotesque and apparently unexplainable features are brought to our attention. When viewed in the light of pure mathematics these methods distinctly violate one of its first elementary rules, and the question arises: How can pounds, feet and seconds be multiplied and divided by one another, as previously indicated?

To make this question perfectly clear to every reader, let us introduce an elementary lesson in arithmetic. If one yard of cloth costs \$2.00, what do ten yards cost? The answer is: $10 \times 2.00 , where apparently we multiplied yards by dollars. But the fact is that before we constructed the equation, we performed a lightning piece of calculation which, not being overstrenuous, usually is executed without the aid of a pencil, thus: $\frac{10 \text{ yards}}{1 \text{ yard}} = 10$, that is we divided the ten yards by the one yard, relating to the \$2.00, thereby cancelling the yards and leaving the isolated number 10, by which we proceeded to multiply the \$2.00. But in mathematical physics we are debarred from any such procedure and are obliged to allow each set of units to enter the equation as units of three distinctly different orders or quantities. How is this to be explained?

We turn to the many different treatises and textbooks on physics and try to learn how the physicists justify this mathematical method, only to find that each and all completely ignore the subject. We may learn everything else in these books, for they discuss, define, and explain elaborately almost every possible — and sometimes impossible — problem connected with mechanics, but nowhere do we find any direct reference to this particular question. Some of them tell us that "matter is that which can be acted upon, or can exert force," and thus distinctly define matter as a thing, and recognise that this thing, measured in *pounds*, is a factor in the product defined as *work*. But as to how *pounds* can be multiplied by *feet* and divided by *seconds*, there seems to reign complete and absolute silence. We begin to wonder whether the answer is really so self-evident as to justify us in taking it for granted!

It seems, however, that this question was once for all disposed of

on the general supposition that the number of dimensions in a manifold depends upon what is necessary for the determination of its complexity, and that the physicist abstracts dimensions just as the geometrician abstracts the dimensions of form. But unless a clearly defined mathematical rule for such abstraction can be established, such general explanations are entirely unsatisfactory, as was made evident when the relativists added a fourth dimension to Space.

In the effort to discover something that can guide us to a satisfactory answer to our query, let us turn our attention to the classical geometric dimensions of form, where once more we are facing an apparent anomaly; for in determining the contents of form, we seem to be multiplying homogeneous units, inches, an equally impossible mathematical proposition. Pure mathematics insists that before we can enter a measurement as a factor in a product, it must be completely abstracted from its subject of reference, in other words it must be reduced to an isolated number. Let us therefore examine this geometric method and try to learn something about abstractions from geometry itself.

PART VI — THE GEOMETRIC QUANTITY

When we measure the *length*, *width*, and *thickness* of a body and multiply them we obtain the measurement of the complete volume or quantity of the body. When calculating the volume of an irregular form, it may be necessary first to divide this form into infinitesimal parts, but this indirect method represents means to the same end. Let us try to determine mathematically what each of the dimensions in a geometric quantity actually represents. The way of resolving a product into its various elements is by dividing it by one or more of these elements. So if we wish to know what *length* is, we must divide the complete product by the other factors, thus: —

$$\frac{\text{Length} \times \text{width} \times \text{thickness}}{\text{width} \times \text{thickness}} = \text{length} \times 1_{w} \times 1_{t}$$

This gives us the mathematical definition of abstracted length and demonstrates something which we have known all the time, namely, that the *length* of a body does not exist by itself but by virtue of its companions, *width* and *thickness*. *Length*, *width*, and *thickness* are three magnitudes constituting a sort of indissoluble partnership. Sometimes one partner and sometimes another may be said to assert itself more than

the others, or any one of them may retire from visible participation, but never altogether. For none of the partners can completely sever its connexion, none of them can ever become less than a *silent partner*, however infinitesimal may be the dimensional value or influence in this partnership. If one of the partners could withdraw completely, its unitvalue would be zero, and the mathematical result would wipe all the partners out of existence. We cannot logically consider or define the length of a quantity without including the partners that determine length, for without such determination, length is a meaningless and empty word.

When we measure *length* with a yardstick, we determine one of the inseparable dimensional aspects of the body with the aid of its other aspects. When we enter this measurement as a factor in an equation in which the other factors have been similarly introduced, what was a definite dimension has now become a factorial magnitude, a numerical relativity, while the complete product becomes the measure of a geometric quantity.

In order to understand this we must draw a clear distinction between magnitudes and dimensions. Magnitudes are continuous, while dimensions are discontinuous. In order to distinguish magnitudes we adopt standard measurements, dimensions, just as we adopt names with which to distinguish objects. But objects are not names any more than magnitudes are dimensions. If magnitudes were dimensions, we should be multiplying definite conceptions by each other, or inches by inches. It follows that before we can multiply numbers belonging to dimensions, we must be able to abstract the defining dimensional aspects from these numbers, and that this can be done only when a condition exists for transforming dimensions into numerical relativities.

That such a condition exists in this geometric equation is confirmed by experience which shows that *length*, width, and thickness have no independent existence and that when either one of these dimensions is referred to separately, it must inferentially include its partners in order to make them objects of thought. Hence mathematics informs us that dimensions can only be applied to factors in a product, when the product represents a community of inseparable and interdefining dimensions of a quantity.

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Before leaving geometry let us examine a point, which our schoolbooks tell us is a 'location without parts,' and it is upon such a point, expressed mathematically as $0_1 \times 0_w \times 0_t$ that the science of geometry is supposed to have been established. Once more we apply the resolving process in order to determine what a mathematical point is. By dividing out the numerical values of all the factors in the way already described, we learn that the mathematical point is $1_1 \times 1_w \times 1_t$. In other words a point is a quantity whose magnitudes are silent or latent. We may make the unit-value of these silent magnitudes as small as we like — billions of times smaller than an electron — but not zero. When zero is reached the mathematical process ceases.

From the foregoing we have learned that length, width, and thickness represent three inseparable and interdefining magnitudes, capable of expressing an infinite range of numerical relativities and of determining the geometric quantity of all extensions from points to universes.

Is this interpretation correct? Kant insisted that "a mathematical demonstration carries necessity on its face" and this necessity appears obvious. Recently, however, there has been a tendency to question Euclidian geometry, and we have been informed by eminent mathematicians that geometry cannot demonstrate the truth of its own theorems. Be this as it may, the above demonstration indicates that what geometry cannot do for itself some very elementary arithmetic can do for geometry. For just as the arithmetically established partners unite the geometric magnitudes in any given quantity, so do they bind pure mathematics to objects of experience.

PART VII — THE DYNAMIC QUANTITY

WHEN we regard the mathematical point, $l_1 \times l_w \times l_t$, as a basic geometric quantum, let us next consider the possibility of recognising a corresponding dynamic quantum.

From atomic research we learn that atoms are fundamental to all objects, that these atoms consist of whirling waves of infinitesimal particles, and that neither these particles nor the atoms themselves are permanently connected with any one object, but detach themselves from one body and attach themselves to another, with the result that all bodies are continually subject to change both as to form and contents. This fact points to a distinct relation between geometric and dynamic quantities. This relation was further confirmed when physicists recognised

energy and mass to be alike, as mass implies a geometric quantity, and again when evidence was presented showing that both the mass and the form (the dimension in the direction of the moving body) of a body appear to change when its velocity is materially altered.

But the most direct confirmation of the inextricable relation between a *geometric* and a *dynamic* quantity is that which we meet with in daily experience, and which shows that any attempt to apply dimensions to the dynamic factors is possible only when these factors are directly related to a body, a *geometric quantity*. Hence, until any fact to the contrary can be established, we are justified in assuming that these two quantities cannot exist separate and apart from another.

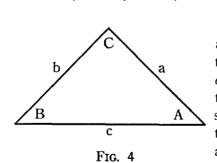
Physical Science defines the energy of a body as its capacity to do work, and both energy and work are measured by the product of their weight and the distance through which the weight moves, expressed in either foot-pounds or gram-centimeters. But this convenient method has proved very misleading and has occasioned some strikingly absurd misunderstandings, as was illustrated when the uncontradicted statements of physicists were recently spread abroad, telling us that action is energy multiplied by time. This was after Einstein had converted clock-time into a geometric dimension and after Planck had introduced a metric constant, known as the quantum of action, and expressed its measurements in gram-centimeter-seconds; and rightly so, for how could a measured quantum of action be other than the measurement of its quantum of energy?

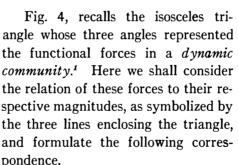
In their effort to formulate their mathematical methods as conveniently as possible, the physicists evidently disregarded the fact that velocity is distance divided by time, $v = \frac{d}{t}$, and that consequently distance is velocity multiplied by time, d = vt. This shows that space or distance is not a magnitude but a function, the product of two magnitudes, and should be so recognised before we are justified in drawing inferences from physical mathematics.

The terms, *time, matter, and space* are inappropriate and misleading, when applied to the dynamic factors themselves, and as such will be discontinued in this discussion. Henceforth they will be referred to directly as *time, weight, and velocity*, and considered as three magnitudes and as external representations of dynamic influences or forces universally at work in a Nature in which all geometric quantities —

points, planets, and solar systems — exist in a continuous state of internal activity and external movement. But before assuming that the product of *time*, *weight*, *and velocity* represents the measure of a *dynamic quantity*, whether that quantity be expressed in terms of *action*, *energy*, or *work*, we must justify such an assumption.

Our earlier references to the importance of distinguishing between a magnitude and a dimension must now be recalled. If time, weight, and velocity are magnitudes they must be disassociated from the dimensional means by which we measure them. As a magnitude, weight is not pounds any more than velocity is feet, nor must the magnitude time be identified with the seconds ticked off by a clock. Pounds, feet, and seconds are arbitrarily established standards of measurement, which, as such, can be applied to the respective dynamic magnitudes for the purpose of obtaining a numerical relativity as a basis for determining a *dynamic quantity*. But in order to justify this method mathematically, we must show that a condition exists that isolates the numbers from their respective subject of reference and transforms dimensions into numerical relativities. In fact we must be able to establish an inseparable and interdefining relation between time, weight, and velocity, and in doing so show that these factors represent a community of magnitudes in external Nature corresponding to the dynamic community of forces in internal Nature.





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A — the initial force B — the inertial force C — the directing force a — time b — weight c — velocity

According to the diagram, weight, b, is a magnitude representing resistance derived from the inertial force, while time, a, is symbolic of an

1. See THE THEOSOPHICAL PATH, Vol. XLIII, No. 4, April, 1934, p. 454.

equal and opposite magnitude, representing that which overcomes *resistance* and as such is derived from the *initial force*. On the other hand when we regard the lines a, b, and c as subtenses to their opposite angles, B, A, and C, and apply this simile to the magnitudes, the diagram illustrates the fact that all magnitudes are reflexions projected into the physical sense-world by their opposite forces. While we shall have opportunity to confirm this statement later, we cannot refer to it without reminding the reader of the following statement by Galileo:

"Philosophy is written in that great book which lies ever before our eyes — I mean the Universe. But we cannot understand it if we do not first learn the language and grasp the symbols in which it is written. This book is written in the mathematical language, and the symbols are triangles, circles, and other geometric figures, without whose help it is impossible to comprehend a single word of it, without which one wanders in vain through a dark labyrinth."

As we proceed, the significance of this pronouncement will become more and more apparent. Galileo must have realized that for the mind to grasp and visualize a conception of the relation between an inner organic Nature and its physical representation in outer Nature would seem a hopeless task without the assistance of the geometry of Nature.

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When we apply dimensions to the dynamic magnitudes, we learn that the *weight* of a body can be determined only when that body is free to move, that all moving bodies have *velocity*, and that *velocity* can be determined only when this magnitude has been directly related to *time*. This shows a correspondence between the external dynamic magnitudes and the internal forces. For just as the two equal and opposite forces in the *dynamic community* are united and co-ordinated by the directing force, so are *weight* and *time* linked together by *velocity* in the *dynamic quantity*, as the diagram shows.

Hence experience confirms the inseparable and interdefining relation of *weight*, *velocity*, and *time*, and tells us that a dynamic magnitude, like the geometric magnitude, has no independent existence, and when abstracted from the quantity must include the silent partners that make it an object of thought.

But to complete the correspondence between a *dynamic quantity* and the *dynamic community*, experience must confirm that the factors *time*

and weight are magnitudes representing respectively the two equal and opposite *initial* and *inertial* forces in an internal action. To do so we must keep in mind that *initiative* and *inertia* are linked together in all actions, whether internal and external, and that a *dynamic quantity*, whether referred to as *action*, *energy*, or *work*, is the product of *time*, *velocity*, and *weight*.

A dynamic quantity = time \times velocity \times weight.

Let us once more recall the scholium to the *Third Law of Motion*, from which Newton deduced a metric equivalence between the product of *force* and its *velocity* on the one hand, and the product of *resistance* (weight) and its *velocity* on the other, and present this equivalence mathematically as follows:

time \times velocity $\times 1_w = 1_t \times$ velocity \times weight.

This presents us with two equal products of only two active factors each, and as the latter product is defined in physics as *momentum*, we must conclude that the other product represents the two forces that determine *momentum*. Hence the scholium is not an illustration of the equivalence between an *action* and its *reaction*, but between *the efforts put forth* and *the effect accomplished*. As these two products have *velocity* in common (see diagram) we learn from Newton's scholium that *time* and *weight* are equal and opposite:

time
$$\times 1_v \times 1_w = 1_t \times 1_v \times weight.$$

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Let us consider the following dynamic quantities, each representing the product of the *time* consumed and the *velocity* and *weight* of the bodily resistance and measured respectively in *seconds* s, *feet* f, and *pounds* p.

1.	$2_{\rm s} \times 4_{\rm f} \times 24_{\rm p} = 192$	foot-p	ound-se	conds
2.	$4_{s} \times 4_{f} \times 12_{p} = 192$	"	"	"
3.	$4_{\rm s} \times 3_{\rm f} \times 16_{\rm p} = 192$	"	"	"

These examples present three complete performances of work, all equal in quantity, but different in the quality of work performed. Before considering these quantities in their relation to each other let us determine the rate at which this work was done. To do so we shall reduce each performance to the work done in a unit of time (second).

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- 1. $1_s \times 4_f \times 24_p = 96$ foot-pound seconds
- 2. $1_s \times 4_f \times 12_p = 48$ " "
- 3. $1_s \times 3_f \times 16_p = 48$ ""

These corresponding examples of units of work are what in physics is defined as $power = \frac{work}{time}$. But instead of dividing *foot-pounds* by seconds, as the physicists do, we obtained this measurement by dividing work by its own number of seconds. Furthermore, according to this interpretation of a dynamic quantity, the product of weight and velocity is not power, but a measurement equivalent to the effort put forth, which in the dynamic quantity is represented by the product of time and velocity. This brings us once more face to face with the question of the relation between time and weight.

As weight differs in the three examples representing units of work, how can time and weight represent two equal and opposite magnitudes? This question was anticipated in Part III, where we presented a synthetic analysis of an internal action and its relation to an external movement, and where we pointed out that the magnitude of the neutralizing *initial force* is determined by the magnitude of the inertial force (weight). To this we shall add that as we succeed in recognising the nature of the *initial force*, we shall realize that this force, when considered by itself, is *indivisible*, and that therefore a divided time-period (the second) serves as a symbolic substitute for the magnitude conditioned by a continually changing resistance. Hence, as the resistance in the work of either man or Nature varies according to circumstances, and as work is a totality of units of work, it is in the unit of work that the equivalence between the two opposite magnitudes, time and weight, is established and the value of the second in relation to pounds determined.

This is verified when we examine the three complete performances of *work* above presented. As the first and second examples maintain the same *velocity* and represent two equal *dynamic quantities*, they show that when we decrease the *weight* we must increase the *time consumed* in order to accomplish the same amount of *work* without altering the velocity. This illustrates a rule to which there is no exception, namely, that if we wish to do a certain amount of work in *two seconds* and maintain a certain velocity, we must overcome twice as much resistance as if we allowed ourselves *four seconds* for doing so. Hence both experience and the mathematically established *dynamic quantity* confirm the

fact that *time* and *weight* stand in an equal and opposite relation to each other.

Let us next compare examples 2 and 3. They are equal in *quantity*, they consume the same amount of *time*, and are alike in *effort put forth* as their measurements of *power* show. From them we learn that the same amount of *power* can be maintained by either increasing *weight* and decreasing *velocity* or *vice versa*, but that such changes invariably alter the magnitude of which the time-unit (*second*) is the substitute.

Hence by applying the rules of pure mathematics to the manipulation of the dynamic factors, *time*, *weight*, and *velocity*, we learn that mathematics demonstrates and experience confirms the indissoluble partnership between the dimensions in a dynamic quantity, and establishes a correspondence between this and the partnership between the dimensions in a geometric quantity, and at the same time supports the selfevident recognition of a *dynamic community* of three functional forces fundamental to action.

While the introduction of the *silent partners* has nothing to do with mere calculations, as their influence is implied by the usual practice of simply leaving them out, nevertheless it is evidently this practice that helps to explain the failure to recognize the actions behind the working processes of Nature. As we proceed we propose to show that the dy-namic community represents a major premiss from which the science of Nature must be developed.

(To be continued)

THE LABORATORY OF THE ALCHEMIST

LEOLINE L. WRIGHT

IT is deeply satisfying to a Theosophist, and to all students of Occultism one would imagine, to realize that alchemy may now be regarded, if somewhat humorously, as the favorite indoor sport of our most up-to-date scientists. Not a few of them have expressed their joy in the adventure of exploring the atom. Says Lord Rutherford, Cavendish Professor of Experimental Physics at Cambridge University: "I know of no more enthralling adventure of the human mind than this voyage of discovery into the almost unexplored world of the atomic nucleus." The fairness with which Lord Rutherford refers to the medieval alchemists as "in fact the first chemical investigators" gives an insight into the truly great range of possibilities which this impartial spirit may open up.

The very contrast between the laboratories of the old and the new alchemy has a picturesque fascination. Those quaint medieval chambers depicted for us in contemporary wood-cuts, with their dusty-musty retorts and the tragedy of abandoned equipment, their antiquated ovens, weird instruments, and outlandish apparatus, will for ever hold a romantic charm. And clear-cut beside this picture stands the bleak efficiency of the modern physics-laboratory, unlike its predecessor even in the ugliness of its apparatus — metallic monsters, suggesting at a glance the irresistible and terrifying voltages which are to be directed at the secret of the atom.

An abyss in time and viewpoint seems to lie between the two. Yet one leans to the suspicion that the still deeper secrets hinted at in those fusty medieval chambers will prove, once more, to be the very latest marvels of the achievements of science in, say, 1999!

Yet is there not an even more "enthralling adventure of the human mind" than exploring the world of the atom? Man himself is an atomic entity — a spiritual atom of the Cosmos. At his heart is a Divine Atom, a Monad. Within this Spiritual Monad, the nucleus at the core of us, lie secrets for us more tremendous and significant — yes, and more romantic and enthralling, than the most picturesque guesses of astronomy or physics.

He is the greatest scientist of all who in the laboratory of his own nature has the insight and the courage to set about the mastery of his spiritual apparatus and the conquest of the mighty forces lying neglected there. For man is already equipped with imagination and will, which can be directed as definitely and irresistibly as the forces of science at the deep secrets of reality and the release of the truly magical powers that lie wrapped up in his monadic nucleus. Did we but realize the urgency of this work we could develop faculties, energies, and wisdom which would, almost overnight, transform the world.

We all know that civilization is at a turning-point. But as the twig is bent the tree's inclined. It is the way we as individuals decide to turn which shall determine whether our world chooses the difficult way 'Eastward' or the easy descent of inertia to the twilight of chaos and despair. It is no exaggeration to feel that, as Theosophists, each one of us has the power to give to civilization — trembling at the fulcrum of destiny — just that slight decisive push that shall swing it in the direction of the Mystic East.

Let us then be true modern alchemists! Let us not sit back and admire the scientists. Let us lead the thought and action of our time — inspire by unceasing thought and word and example the thousands upon thousands everywhere who are looking for some new, some high and spiritual, adventure. We have the teachings — we have the *facts*. Are not the Mystery-Schools of Antiquity come again? May not anyone who will live the life and accept spiritual guidance aspire to initiation? Have not our Teachers assured us that the door to chelaship — and therefore to endless magnificent reaches of knowledge and expansion of consciousness — has been once more set ajar? And this is no mere rhetoric, we are reminded, but a statement of sober truth which any earnest inquirer may be helped to verify.

Living the life! There is the Theosophist's real key to that lockedup, psychological chamber within himself where lie his spiritual powers, so long forgotten, so utterly neglected now for many lives. Spiritual imagination and spiritual will are the first of these; but how different from the wilfulness and the visualization merely of self-interest which are the imitations we habitually employ!

What then can replace wilfulness and self-exploitation by spiritual powers transforming personality and passion into impersonality and compassion? Just the magic alchemical secret to forgive and to love — truly to forgive, and truly to love. This of course means beginning in the home or office or the country-club with the person who is most irritating. It means not resenting stupidity and 'being snapped at.' It will demand a hundred small acts of self-restraint and self-denial day after day after day. It may mean going without many precious trifles which hitherto have oiled the wheels of endurance. And to replace these we must distil an even smoother elixir from the understanding and patience and harmony developed by the use of the spiritual imagination and will. For what makes these faculties spiritual is the fact that they are no longer demanding but giving; dedicated powers, no longer exploited for self.

Dauntingly difficult this! — and what for? What shall be the reward of this strenuous toil? — toil distasteful to the modern man with his upside-down points of view. 'Reward' is an unbeautiful word, al-

most as hateful as 'punishment,' but it expresses the reaction of most of us to any new idea. It may therefore be temporarily used, though the serious student soon outgrows it. What then are the rewards? — for there are many.

First, and perhaps least of all, there is happiness. Blessedness is perhaps a better word, as Carlyle perceived when he said that men could afford to give up happiness in order to find blessedness. But 'happiness' is the heart's desire of most men, so let us call it that — deep, abiding, inspired happiness, which nothing but a return to selfish or indifferent habits can destroy. And this is readily verified. Merely a small persistent daily effort will open that door.

Second, vision into the spiritual worlds. Any weakling can traffic with the psychic realms. But to penetrate to the spiritual worlds a man must become more than man — another being altogether — not by thinking about it, but by actively changing the nature. A Master has put the matter for us once for all:

. . . Volumes of the most perfectly constructed information cannot reveal to man life in the higher regions. One has to get a knowledge of spiritual facts by personal experience and observation. — The Mahatma Letters to A. P. Sinnett, p. 64

"Personal experience and observation" means of course a vehicle with its spiritual faculties through which they can be obtained. The human soul must develop itself into such a vehicle with such faculties. One suspects that the blessedness which is one of the earliest symptoms of the true occult life is more literally the 'bliss of growth,' and one divines that long practice in impersonal love and forgiveness must bring about spiritual birth or initiation. Naturally, somewhere along this path, there is the point at which the aspirant becomes entitled to the individual guidance of the Teacher.

The third and highest 'reward' should really be put first because it includes the others and all things whatsoever of beauty and holiness. This is — O thought of daring! — the power to become a Buddha of Compassion. In *The Voice of the Silence, Fundamentals of the Esoteric Philosophy*, and *Golden Precepts of Esotericism* something may be glimpsed of what it means, both in effort and attainment, even to conceive truly of the glory of this supreme undertaking. To be able to unfold the powers of a Buddha of Compassion would be indeed to learn the real and esoteric meaning of the word 'reward.'

Starting, then, in the lowly chamber of his own heart, man the spiritual alchemist works and builds, until suddenly he discovers himself with the whole Universe for his laboratory, his playground of experience and experiment. Above and about him rise, tier above mystic tier, the rainbow Stairways of Being. Any or all of them he may explore so soon as he has developed strength for the ascent. But never shall he be able to lift his foot even to the lowest steps till selflessness and active compassion have become for him the very pulse and breath of existence.

CONSCIOUSNESS, SPACE, TIME, AND RELATIVITY

Comments on The New Background of Science*

JOSEPH H. FUSSELL, D. THEOS.

Ι

THE New Background of Science by Sir James Jeans gives striking evidence of one of the most significant features of present-day thought, namely, the ever-widening horizons which beckon us on to penetrate ever farther into the mysteries of the Universe, not only into the Macrocosm, into the unfathomed and unfathomable spaces of Space, but into the inter-atomic and microcosmic world, equally unfathomed and unfathomable. The concept of Space as infinite is axiomatic, for if we say that Space itself — as distinguished from a region of space, however vast, as for instance the space of our own Home-Universe, or of any of the Island-Universes, or of the totality of all of the hitherto discovered Galaxies or Universes — if we say that Space itself is bounded, hence limited, the inevitable question arises: What lies beyond? And logically and philosophically if infinity be a necessary postulate of cosmic space. The one necessitates the other; they are complementary.

Where then shall we find Reality, the ultimate goal as it is the ultimate origin — if there be an ultimate — if there ever be a 'beyond' both outward and inward? We cannot vision ultimate Reality any more than we can vision a boundary to Space, or a limit to Infinity. This is

^{*}Cambridge University Press, London (7s. 6d.).

a fundamental concept of the Ancient Science and also follows logically from one of the most significant of the pronouncements of certain modern scientists — also one of the basic teachings of the Ancient Science — although one may ask whether they realize its full significance and implications. I refer to the almost identic statements of Jeans, Planck, Schrödinger, and others, that "Consciousness [or, as Eddington expresses it, 'Mind-stuff'] is the fundamental of the Universe." In the words of Sir James Jeans: "I regard matter as derivative from consciousness, not consciousness from the material Universe." Again, Sir James holds that "the Universe begins to look more like a great thought than a great machine."² That these two notable utterances of Modern Science, which we here place in juxtaposition, are directly and logically related is not only philosophically true as a general proposition - for once we enter the realm of consciousness we have transcended the realm of physical science, heretofore conceived as a separate, independent realm - but, although not specifically referred to in The New Background of Science, this work gives added confirmation to such relationship. Furthermore, although not voiced by the author, the inescapable and final conclusion - not only as to the new but the ever-receding Background of Science, and following the conclusions arrived at by the author in the present work — is that this background is Consciousness itself. In his concluding words in this his latest work he writes:

We have already described recent progress in physical science as resulting from a continuous emancipation from the purely human point of view. Our last impression of nature, before we began to take our human spectacles off was of an ocean of mechanism surrounding us on all sides. As we gradually discard our spectacles, we see mechanical concepts continually giving place to mental. If from the nature of things we can never discard them entirely, we may yet conjecture that the effect of doing so would be the total disappearance of matter and mechanism, mind reigning supreme alone. . . Broadly speaking, the two conjectures are those of the idealist and realist — or, if we prefer, the mentalist and materialist — views of nature. . . Thus, subject to the reservations already mentioned, we may say that presentday science is favorable to idealism. In brief, idealism has always maintained that, as the beginning of the road by which we explore nature is mental, the chances are that the end also will be mental.— pp. 297-8

Such is the conclusion reached by the author, after passing in review the scientific achievements of modern times and the changes in the evo-

 ^{&#}x27;Interview with Sir James Jeans' by J. W. N. Sullivan, The Observer, London, 1931.
 The Mysterious Universe, p. 158.

lution, we may say, of scientific conceptions regarding the physical Universe, both in the great, the macrocosm, and in the small, the microcosm. We regard the present work as one of the most important contributions to the scientific literature of what is perhaps the most brilliant scientific era known to history. But although we accept the view of the 'idealist' or 'mentalist' as giving a truer picture of Nature and as nearer by far to Reality than that of the materialist or 'realist'— as this term is used by the author — it should be recognised that the latter is itself a mental conception founded on a misinterpretation of the observations and experiences of the phenomena of Nature and hence leading to false conclusions. As for "emancipation from the purely human point of view," and taking "our human spectacles off," the author in regard to the latter wisely adds: "if from the nature of things we can never discard them entirely," seeing that in 'the nature of things,' so long as we are human, we can view things no otherwise than through our human spectacles and from the standpoint of the human mind. But when, from the 'idealist' or 'mentalist' viewpoint, he writes "we may yet conjecture that the effect of doing so would be the total disappearance of matter and mechanism, mind reigning supreme alone," we think the pendulum has swung too far on the other side, unless we say 'physical matter' and 'physical material mechanism,' employing the term 'physical' as referring to matter cognisable by our presently evolved physical senses — in other words as referring to the matter of this plane of physical life in and on which we now function. And for this reason: namely, that obviously the mind has its own mechanism, and can function only on this plane through the mechanism of a physical brain, which mechanism is formed of living substance and, from the premiss that "consciousness is the fundamental of the Universe," is not only an instrument, a mechanism of the mind, *i. e.*, of consciousness, but is fundamentally of the same essential nature as mind or 'consciousness,' albeit on a lower, more concreted plane. So too, from the same premiss, what has heretofore been regarded as inanimate, inorganic matter, the mineral kingdom, and the whole physical universe, is concreted consciousness.

Thus whether knowingly or unknowingly the most eminent of modern scientists are approaching in their conclusions to the teachings of the Ancient Science as enunciated by H. P. Blavatsky in *The Secret Doctrine* and by G. de Purucker in *Fundamentals of the Esoteric Philosophy*, in which two works are to be found the completest exposition of these teach-

ings along scientific and philosophic lines. And if with the keys which are given in these two works we collate the intuitive, and at the same time reasoned, conclusions of our modern scientists, the evidence of this approach is beyond question, and we shall find one here and another there of these conclusions which closely parallel the ancient teachings. Thus in regard to consciousness as "the fundamental of the universe," the same teaching albeit in different language is given in the Ancient Science, namely that "the Universe is imbodied consciousness," or as expressed by G. de Purucker, "the Universe is imbodied consciousnesses." Thus in *The Secret Doctrine* (1888), H. P. Blavatsky writes: "ALL IS LIFE, and every atom of even mineral dust is a life";³ "Everything in the Universe, throughout all its kingdoms, is CONSCIOUS."⁴

Another of the conclusions of modern science, also in accord with the Science of Antiquity, is that force and matter are fundamentally one, opposite poles as it were of the same thing; and what can this 'thing' be if it be not consciousness or mind-stuff, 'the fundamental of the universe,' — the one, consciousness, being the energic, dynamic, force-aspect; the other, mind-stuff, being the matter-aspect, a concretion of 'Life-Consciousness-Substance?

In the same work, just cited, H. P. Blavatsky in 1888 wrote: "To occult Science, *force* and *matter* are *only two* sides of the same Substance."⁵ "Though one and the same in their origin, Spirit and Matter, when once they are on the plane of differentiation, begin each of them their evolutionary progress in contrary directions — Spirit falling gradually into matter, and the latter ascending to its original condition, that of a pure spiritual substance. Both are inseparable yet ever separated — Spirit and Matter — the two poles of the same *homogeneous* substance, the root-principle of the universe."⁶

What is this 'root-principle of the universe'? Consciousness, according to Jeans; Mind-stuff, according to Eddington; whereas, in fact, according to the Ancient Science, these are the two poles of the 'rootprinciple' just above referred to, which itself in its unmanifest condition is both. As elsewhere stated in *The Secret Doctrine*:

But once we pass in thought from this (to us) Absolute Negation [the One Reality, the Absolute], duality supervenes in the contrast of Spirit (or consciousness) and Matter, Subject and Object.⁷

3. Op. cit., I, 248.	4. Op. cit., I, 274.	5. Op. cit., I, 258.
6. Op. cit., I, 247.		7. Op. cit., I, 15.

Π

THE first two of the eight chapters which comprise the work, namely (1) 'The Approach to the Modern World'; and (2) 'The Methods of Science,' are not only introductory, but give the crux of *The New Background of Science*, or, in the technical phraseology of perspective geometry, 'the vanishing point of the picture' towards which all lines in the drawing are directed, and upon the determination of which the correctness of the drawing depends. Thus in Chapter II, under the subtitle 'The Search for Reality,' after quoting Karl Pearson's description of the function of science as "the classification of facts, the recognition of their sequence and relative significance"; and Einstein's: "the object of all science is to co-ordinate our experiences and bring them into a logical system"; and the view of Dirac which he regards as extreme: "the only object of theoretical physics is to calculate results that can be compared with experiment"; Sir James writes:

These views regard science as being concerned solely with the phenomena of nature; and the underlying reality from which all phenomena originate does not come into the question at all. And indeed many specifically maintain that the phenomena and their laws constitute the whole province of science — science, in brief, is concerned with what happens, not with what is.— pp. 56-7

To those who say "We can know nothing of the external world," Jeans rejoins "No; we can know nothing of the external world for certain. At best we can only deal with probabilities," adding

we cannot explain, and so cannot know, the ultimate nature of external things except in the *a priori* improbable event of these proving to be of the same nature as something with which our knowing minds are familiar. For otherwise there is no standard of comparison, no language in which to describe it, for language can only describe experiences we have in common.

And then, after giving an example in illustration of this, Sir James continues:

It is this kind of difficulty, rather than the bleak metaphysical argument that we can have no certain knowledge of what lies beyond the confines of our prison-house, that constitutes the true barrier to progress.— pp. 57-60

The author thus throws wide open the door to the whole problem of knowledge: what constitutes knowledge? what can we know? how do we know? Modern science in fact is not merely touching the fringe of philosophy; it is penetrating to its very heart which, in truth, is also the

heart of science, and the recognition and the facing of which are in full accord with true science and mark the truly scientific mind. For neither science nor philosophy alone, nor religion alone, can solve what hitherto, and still to a large extent today, have been and are regarded as its own special problems. For the full solution of these each must call in the aid of and must supplement the other two: and for this indisputable reason, namely, that truth cannot conflict with truth; and although each — science, philosophy, and religion — presents one, but only one, facet, one aspect or phase, of truth, it is not the whole, any more than one of the prismatic colors is the totality of sunlight. The prism through which the light of Truth shines is the mind of man; and inevitably so, because of the constitution of the human mind, to the operations of which are due all concepts of whatever category, while behind or within and higher than the mind, and working through it, is the self of man, of which mind is but an instrument and, as said, the prism through which the light of Truth shines. It is man himself, the inner self, which with its power of discernment and judgment directs the operations of mind. Hence we deceive ourselves if we think we can ultimately and completely separate the realms of science, philosophy, and religion, one from the others, or have or formulate any true concept, scientific, philosophic, or religious, which is isolated and without implications relative to all three realms. In other words all our investigations, all our knowledge, of Nature in the last analysis must be related to and measured by and in terms of consciousness, that is of man; the only certain knowledge which man can have is of his own consciousness, of himself as a center of consciousness. Hence the axiomatic truth of the saying of Protagoras: "Man is the measure of all things."

III

THE successive theories which Sir James so clearly outlines and discusses in *The New Background of Science* show a farther and farther recession from the rigid materialism of a century ago, and a progressive approach to what the author calls the 'mentalist' or 'idealist' view, the concept of a universe of consciousness and life, not static but 'fluidic,' energic in all its parts. This is clearly seen from an analysis of the arrangement of the contents of the work, to which necessarily from lack of space in a single article only brief reference can be made.

In Chapter III, 'The Framework of the External World - Space

and Time,' the author discusses briefly 'Rudimentary' and 'Pre-relativity' views of space and time. Holding the opinion which is generally accepted by modern scientists, although there are notable exceptions, of "the existence of an objective nature, external to and independent of" man, he writes:

What Professor Cornford describes as the "discovery of nature" occurred in Ionian Greece six centuries before Christ. It is important — although, for the scientist, difficult — to realize that space and time were also human "discoveries" of about the same epoch.— p. 73

Not only 'difficult,' we say, but such a view is untenable, not in accord with well known facts. With equal justice we might say that space and time are discoveries of our own time, as of the *Ionian epoch*. Science was not born in Greece, nor in Egypt, nor in India. Sir James himself indirectly supplies proof of this. He quotes Plato who in *The Timaeus* describes space as

"that which receives all bodies. It must be called ever self-same, for it never departs from its own quality. . . . Space never perishes but provides an emplacement for all that is born; it is itself apprehended without sensation, by a sort of bastard inference, and so is hard to believe in. . . ."⁸ — p. 74

But Space, so described by Plato, was assuredly then no new or recent discovery nor, we may add, of a science or a philosophy still in its infancy as so many today would have us believe. Witness, for instance, the Zodiacs, not only of Greece, but others far older, of Egypt, China, India, and of the Mayas. The dates given to these ancient civilizations are absurdly inadequate to account for the facts, and are being continually pushed back by archaeological discoveries. Witness also the fragments of the works, still extant in Southern India, of the Atlantean astronomer, Asuramaya, who is mentioned in the Hindû Purânas, and of whose period H. P. Blavatsky writes: "It may have been 100,000 years ago, it may have been 1,000,000 for all that the outside world will ever know."9 If our modern scientists would but study the Ancient Science, as outlined in H. P. Blavatsky's The Secret Doctrine, they would find that the most recently re-discovered facts regarding the Universe are there not only outlined but explained, and find also keys to a still deeper understanding of the Cosmos, and of macrocosmic and microcosmic phenomena, and of life.

^{8.} Op. cit., Thomas Taylor's translation, §§49-51, pp. 487-90.

^{9.} The Secret Doctrine, II, 47-51.

Not even Kant, than whom few if any hold a higher position in modern philosophy, has offered a more satisfactory definition of Space than that given by Plato. His views indeed as summarized by Jeans closely parallel those given in *The Timaeus*:

"(1) The notion of Space cannot be derived from external experience; . . .

"(2) The notion of Space is a necessary, a priori one; . . . "

Commenting on which the author writes:

In brief for Kant, as also for Descartes and Newton, objects cannot exist without space; for Einstein, space cannot exist without objects.— p. 97

Obviously, however, Kant and Einstein view space from two different aspects which when understood are not mutually contradictory or opposed, but complementary and both valid. Kant's view is of Space per se, and in accord with Plato's quoted above; while Einstein's view has reference to, and is valid only in respect to, a region of space, defined and limited by the objects of which it is the 'receptacle,' and hence measurable with reference to those objects, as, for instance, to our solar system, our universe, or any 'island-universe' or to the galactic or supergalactic system. Eddington likens space, a region of space we say, to an 'electrical field,' and this conception takes on added meaning if we speak in terms of consciousness of which, as the 'fundamental' or root-essence of the universe, and hence of every part of the universe, every energy, every entity and 'thing,' comet, sun, planet, man, atom, within and comprising the universe, is builded and is an expression or manifestation, or vehicle or garment — a concretion, as it were. To quote again the teaching of the Ancient Science, as voiced in The Secret Doctrine: "The universe was evolved out of its ideal plan."¹⁰

IV

AFTER discussing the Michelson-Morley experiments which "unambiguously support the latter alternative" presented in the question "Does light travel like waves or like particles?"; Newtonian relativity; and the Lorentz Transformation; under the subtitle 'The Theory of Relativity,' Sir James in the course of but a few pages, and in language easily understandable by the layman, ably summarizes this the crowning achievement of Einstein, formulated in 1905. He quotes Einstein's 'supposition,' apparently confirmed by experiment, that

10. Op. cit., I, 281.

"Nature is such that it is impossible to measure an absolute velocity by any means whatever";

and adds:

In brief, nature is concerned only with relative velocities; there is no fixed background of points in space against which motion can be measured in absolute terms, and consequently no absolute flow of time against which intervals of time can be measured.— pp. 94-5

With all of which we agree, save that (a) we ask: What becomes of the 'absolute,' in the sense of 'unvarying,' velocity of light, the *one* 'absolute' on which Einstein bases his Relativity theory? Even this assumption is being questioned, due to recent experiments by Peas and Pearson which show a small periodic variation in the speed of light. We ask also what about the speed of thought, of consciousness? With the proviso also that (b) Nature is regarded as limited to the world of phenomena, to the totality of that which is within the range of our *physical* senses or perceptions, whether directly or by the aid of physical instruments; and (c) that by space is meant a region of space, however vast, which is measurable as already said only with respect to the observable objects of which it is the field.

According to the Ancient Science, Nature comprises not only the visible worlds, the worlds of phenomena, but the invisible worlds, such as, to give an illustration, the *world*, as we may conceive it, of mind or thought, the world of consciousness, which is not limited by physical expression. Man being a part of Nature, an integral part of the Universe, Nature as a whole must include all that man is; and whatever is in man must be in the Universe — else the part is greater than the whole — and vice versa, whatever is in the Universe is in man.

In accordance with Plato's definition quoted above, Space is "that which receives all bodies," and "provides an emplacement for all which is born," and, we may say, out of which comes all that is born. In this sense Space is the ultimate background and source of all Nature, visible and invisible, subjective and objective. Further the ancient teaching is thus given by H. P. Blavatsky in *The Secret Doctrine*:

Space is neither a "limitless void," nor a "conditioned fulness," but both: being, on the plane of absolute abstraction, the ever incognisable Deity, which is void only to finite minds, and on that of $m\hat{a}y\hat{a}vic$ perception, the Plenum, the absolute Container of all that is, whether manifested or unmanifested: it is, therefore, that ABSOLUTE ALL. There is no difference between the Christian Apostle's "In Him we live and

move and have our being," and the Hindû Rishi's "The Universe lives in, proceeds from, and will return to Brahma (Brahmâ)": for Brahma (neuter), the unmanifested, is that Universe *in abscondito*, and Brahmâ, the manifested, is the Logos, made male-female ¹¹ in the symbolical orthodox dogmas. . . .

"What is that which was, is, and will be, whether there is a Universe or not; whether there be gods or none?" asks the esoteric Senzar Catechism. And the answer made is — SPACE.¹²

And again in the same work:

Space is the real world, while our world is an artificial one. It is the One Unity throughout its infinitude: in its bottomless depths as on its illusive surface; a surface studded with countless phenomenal Universes, systems and mirage-like worlds.¹³

Indeed, not until science begins to think in terms of this 'fundamental,' in terms of consciousness, will it be able to check the validity of its theories. As above stated some of the most eminent of modern scientists now postulate consciousness as the 'fundamental of the universe,' and so it is, both subjectively and objectively; but there is another deeper, more 'fundamental fundamental,' if we may use the expression, namely Space *per se*. For Space is the *field* of consciousness, the ultimate 'Field of fields,' and consciousness *per se* is but a manifestation *in* Space — each manifestation of consciousness having within Space its own 'field' or 'space,' its 'region' of space, or sphere of action.

The space of Einstein, however, is not space *per se*, absolute, boundless, but, as said, a *region* of space, existing as a region solely because of the observable objects within it, and by means of which alone it can be cognised and measured. Einstein's space is thus relative, and can therefore be regarded as subject to the Relativity theory.

So too may time be regarded in two aspects: (a) absolute, and hence unmeasurable, and (b) relative, dependent upon observable objects, or more correctly and fundamentally, upon consciousness, upon objects in the sense of 'events,' as later discussed by Jeans.

As stated above he quotes Plato's definition of Space, which indicates plainly a recognition of these two aspects: (a) 'self-same,' never departing 'from its own quality,' unaffected by and unrelated to objects, save as an 'emplacement,' receiving 'all bodies'; and (b) relative, in that all that is must be in *some* place and occupy *some* space, which thus becomes definable by reason of the objects within it.

^{11.} The Hebrew Jehovah, one of the lower Demiurgi, is likewise male-female (*jah*, male, *vau*, female). 12. *Op. cit.*, I, 8-9. 13. *Op. cit.*, I, 615.

Sir James might also have quoted from the same work to show that Plato teaches Relativity not only in respect to the Universe but in respect to time, and also gives the explanation of another of the recent theories of modern science, the 'curvature of space.' Indeed a more careful study of the ancient teachings, not alone of Plato but of the far older literature of the Orient, of Egypt, India, and China, would reveal the fact that the most recent conclusions of modern science are but rediscoveries of what was taught ages ago in the Ancient Science. The language of the Ancient Science is not, it is true, the scientific language of today, being more or less mystical, veiled and symbolic,— the reason for which we cannot go into here, although fully explainable — nevertheless, once we look at the ideas, the teachings, the parallel is unmistakable. For instance in the words of *The Timaeus*, from which the space at our disposal permits quoting of only a few salient points to illustrate this parallel:

When therefore that god who is a perpetually reasoning divinity cogitated about the god who was destined to subsist at some certain period of time, he produced his body smooth and equable; and from every way from the middle even and whole, and perfect from the composition of perfect bodies. But placing soul in the middle of the world, he extended it through the Whole: and besides this, he externally invested the body of the universe with soul; and causing circle to revolve in a circle, established the world one singular solitary nature, . . . And on all these accounts he rendered the universe a blessed god. . . the artificer of the world constituted soul both in generation and virtue prior to and more ancient than body, as being the proper lord and ruler of its servile nature; . . . 14

However foreign to modern occidental ideas Plato's teaching regarding the gods, and that the universe is a god, let us not forget the saying of Jesus "Ye are gods," nor the conception of the universe as an organism now held by many modern scientists. If man be a god in his essential nature; if consciousness be the 'fundamental' of the universe; we can see that not without reason did Plato and all the ancients speak of the universe, the sun, the zodiacal constellations, etc., as 'animals,' in the sense of animated, living 'beings,' or organisms, which view is held by many eminent modern scientists. But lack of space forbids our pursuing the thought further, save to say that some day it will be recognised that the ancients were not superstitious dreamers.

So, too, Plato, as also later the Stoics, taught relativity not only in respect to the universe but in respect to time, each being 'generated,' ac-

^{14.} The Timaeus of Plato, Thomas Taylor's translation, pp. 462-3.

cording to an 'exemplar of an eternal nature.' The Science of Antiquity, Theosophy, the Wisdom of the gods, taught also consciousness, intelligence, as the root, the fundamental, of the universe which is brought forth, generated, as the result of 'cogitation,' thought; built, fabricated, of mind-stuff, permeated by 'soul.' Thus in *The Timaeus*.¹⁵

But when the generating father¹⁶ understood that this generated resemblance of the eternal gods moved and lived, he was delighted with his work, and in consequence of this delight considered how he might fabricate it still more similar to its exemplar. . . . The nature indeed of the animal its paradigm is eternal,¹⁷ and this it is impossible to adapt perfectly to a generated effect. Hence he determined by a cogitative energy¹⁸ to produce a certain movable image of eternity: and thus, while he was adorning and distributing the universe, he at the same time formed an image flowing according to number, of eternity abiding in one; and which receives from us the appellation of time. . . .

But Time was generated¹⁹ together with the universe, that being produced together they might together be dissolved, if any dissolution should happen to these. ... For its exemplar is permanent being, through the whole of eternity; ... 20

According to The Secret Doctrine:

Time is only an illusion produced by the succession of our states of consciousness as we travel through eternal duration, and it does not exist where no consciousness exists in which the illusion can be produced; but "lies asleep." The present is only a mathematical line which divides that part of eternal duration which we call the future, from that part which we call the past. Nothing on earth has real duration, for nothing remains without change — or the same — for the billionth part of a second; . . .²¹

Plato, following the Ancient Science, taught, as do many modern scientists today, consciousness as fundamental, as existing throughout the whole universe; and 'matter,' the visible universe, as fashioned *within* consciousness and, by implication, *from* consciousness. We quote again from *The Timaeus*:

After therefore the whole composition of the soul was completed according to the intention of its artificer, in the next place he fabricated within soul the whole of

15. Op. cit., Thomas Taylor's translation, pp. 465-8.

16. The Demiurgus, one of the lower hierarchy of the gods, called Elohim in *Genesis*, not one of the 'eternal gods' who belong to a higher, superior, hierarchy.

17. Cf. "The universe is evolved out of its ideal plan."— The Secret Doctrine, I, 281, quoted above.

18. Cf. "the universe begins to look more like a great thought," (Jeans), quoted above. 19. Generation implies a beginning, hence also an end.

20. Op. cit., Thomas Taylor's translation, pp. 466-7. 21. Op. cit., I, 37.

a corporeal nature; and conciliating middle with middle, he aptly harmonized them together. But soul being every way extended from the middle to the very extremities of the universe, and investing it externally in a circle, at the same time herself revolving within herself, gave rise to the divine commencement of an unceasing and wise life, through the whole of time²²

-- thus indicating the explanation and the reason for the phenomenon of the 'curvature of space,' and of 'periodicity': the periodical and alternate appearance, generation, and disappearance of the universe, and the beginnings and cessations of time.

We have spoken thus somewhat fully of space and time because the conceptions of these are fundamental to an understanding of the marvelous advances of modern physics, both of astro- and micro-physics.

The author concludes his discussion of 'The Framework of the External World — Space and Time,' by a brief reference to the philosophic conception of reality, as 'timeless, and time merely, in Plato's phrase, 'a moving image of eternity.' " He then quotes two significant passages from Bradley's *Appearance and Reality*, and adds:

We may notice how the absorption of space and time into a higher unity, the space-time continuum, which transcends both and is changeless, satisfies the requirements of the philosophers, although only at the expense of relegating evolution to the realm of appearance.— p. 144

In a later article we shall comment on the meaning given to this term 'space-time continuum' and to the other factors of *The New Background* of Science which the author so ably discusses, namely, Mechanism, Wave-Mechanics, Indeterminancy, etc.

INQUIRY INTO THE UNKNOWN

C. J. RYAN, M. A.

THE English broadcasting journal, *The Listener*, has lately published a highly interesting series of talks entitled 'Inquiry into the Unknown.' Dr. C. D. Broad, Professor of Moral Philosophy at Cambridge University, in closing the series makes some comments on the anomalous position of modern professional philosophers in regard to the alleged facts of psychical research, which ought to make them feel that they are seriously neglecting their duty. His remarks remind one of H. P. Blavatsky's first great effort in writing *Isis Unveiled* — to awaken the world

^{22.} Op. cit., p. 465 et seq.

to the absurd limitations of her contemporaries in regard to the vast world of the Unknown. Largely owing to her, there has been an advance, but as Dr. Broad points out, the professional philosophers are still badly in the rear. Some of the points mentioned by this eminent thinker should have wide publicity and are well worth quoting.

One is the nature of Time, a favorite subject and one of great philosophic importance. The recent developments of science have shown that the 'common-sense' ideas of time, and perhaps of space, are quite inadequate, but where is the philosopher who has made any study of the evidence for pre-cognition or prevision, that is, for the powers of seeing or knowing what is about to happen before it happens? If this extraordinary supposition is a fact it is more important for a right understanding of the problem than a thousand assumptions. For centuries it was believed that a goldfish could be placed in a completely-filled vessel of water without a drop being spilled, and learned men discussed the mystery with vehemence. When at last the experiment was tried the water naturally ran over the edge! We laugh at the simplicity of our ancestors, but our professional philosophers are in the same position in regard to prevision. There is an immense mass of evidence in favor of it. Everyone has heard of the second-sight of the Scottish Highlanders, but there are innumerable well authenticated cases of foreseeing events both in dream and in waking consciousness. Probably every reader of these lines knows of some, or has even experienced one or more himself. Α large proportion of these impressions are clear-cut, detailed to the minutest degree, and not merely vague premonitions. Many lives have been saved by attending to such clear and unmistakable warnings of danger.

But think what an enormous vista of thought is opened by knowing this extraordinary property of time! Logically studied, it will change many of our fundamental conceptions about Nature and our own inner powers of perception. Why are the 'philosophers' so inexcusably indifferent to such a significant fact, Dr. Broad asks? H. P. Blavatsky treats the subject of time in many places in *The Secret Doctrine*, among others in Volume I, pages 37, 43, and Volume II, page 612.

Dr. Broad also draws attention to the question of the range and limitations of human faculties and knowledge, and observes that the evidence for telepathy and clairvoyance is never mentioned in the discussions of the philosophers. In regard to the former he makes such a Theosophical suggestion that we must quote his own words:

To deal with telepathy we shall probably have to suppose that the deeper unconscious layers of different minds interpenetrate and affect each other directly, though more superficial conscious layers are isolated and cannot directly affect each other.

Here he is surely approaching the esoteric teaching of the compound nature of man, though we might object to the use of the words 'unconscious layers.' 'Superconscious' would be better, but presumably he means 'unconscious' to the ordinary brain-mind.

After pointing out the necessity for a thorough investigation of levitation, mediumistic phenomena, fire-walking, etc., by modern philosophers before they can have sufficient data for rational discussion on their own particular subjects, he quite Theosophically says that all these things are not intrinsically great or elevating, but that their importance lies in the revolutionary implications they carry. In science the most trivial exceptions have led to complete transformations of thought, and, as he says:

The odd, exceptional, inexplicable facts are always the points from which the next great and fundamental advance in human knowledge may be made. It is for that reason that I, as a philosopher, attach so much importance to psychic research, and deplore the indifference of my colleagues to the subject.

But why not study the Ancient Wisdom, the teaching of the real, the adept, philosophers of ancient and modern times, which contains the keys that, when properly turned, gradually reveal the truth to the worthy and well qualified seeker?

It must have been a surprise to a great many who reject the possibility that the stories of Magic coming down to us from antiquity have any more basis than imagination combined with a little clever conjuring — an elementary knowledge of chemical action, and the use of primitive optical arrangements — to learn that such a learned scholar and careful scientific explorer as Sir Ernest A. Wallis Budge, until lately the distinguished head of the Egyptian Department of the British Museum, should have committed the scientific *faux pas* of announcing that Magic was no imposture. According to discoveries made by him during years of research, not only was the Egyptian and Babylonian Magic based on occult knowledge of mysterious laws transcending anything modern science even suspects, but it is still to be found in the East. He describes many personal observations of occult phenomena he has seen, including the conscious projection of the 'double' as a practical method of communication between some of his subordinates in excavation-work. His life was saved by occult methods on at least two occasions.¹

Dr. Budge is not the only distinguished Egyptologist or scholar of modern times to admit that Orientals possessed, and now possess, knowledge of an immense range of natural law unsuspected by Western science, but he has recognised the danger that lies in the indiscriminate diffusion of this 'occult' learning among those who are unfit to handle it wisely and unselfishly. He says that what he has discovered will not be generally revealed, but reserved for the very few persons in whom he has confidence.

This is excellent, but will hardly be popular in these crazy days when every nation has it corps of industrious chemists inventing more and more ghastly methods of destroying so-called 'enemies' — brothers if they would only recognise the fact. H. P. Blavatsky handled this subject with a fiery pen in her magnificent 'Blessings of Publicity.' Dr. Budge is perhaps unique in adopting the time-honored principle of the School of Wisdom of the Right-hand Path, whose Masters established the Theosophical Society to teach the elementary lesson of Universal Brotherhood to a wayward world.

In *The Mahatma Letters to A. P. Sinnett*, the Masters M. and K. H. make it plain that the aim of the Theosophical Movement was never the encouragement of the lower phenomenal side of 'Magic' but true spiritual development. They say:

On his part [Mr. Sinnett's] . . . the idea was solely to promote the formation of a kind of club or "school of magic." It was, then, no proposal of *ours*, . . . But this consent [to start an "Anglo-Indian Branch"] . . . was obtained solely under the *express and unalterable condition* that the new Society should be founded as a Branch of the *Universal Brotherhood*. . . . But a "hot-bed of magick" we never dreamed of.— p. 209

The situation is this: men who join the Society with the one selfish object of reaching power making occult science their only or even chief aim may as well not join it — they are doomed to disappointment. . . . How many times had we to repeat, that he who joins the Society with the sole object of coming in contact with us and, if not acquiring, at least of assuring himself of the reality of such powers and of our objective existence — was pursuing a mirage? I say again then; it is he alone who has the love of humanity at heart, who is capable of grasping thoroughly the idea of

^{1.} Quotations giving more particulars of Dr. Budge's remarkable experiences will be found in *Lucifer* for April, taken from the interview published in *The Daily Express*, London, January 17, 1934.

a regenerating practical Brotherhood who is entitled to the possession of our secrets. , , .— p. 253

The Theosophical Society holds this position today with no reservations. "Regenerating practical Brotherhood" and not the development of psychical or 'magical' powers was the base of the 'Original Program' insisted upon by H. P. Blavatsky and for which she gave her life. The declarations by such eminent scholars and critical observers as Dr. Budge, Arthur Weigall, and other Egyptologists, Mme. Alexandra David-Neel, the distinguished Orientalist, Lord Curzon, former Viceroy of India, and many others, that the science of 'magic' is no vulgar superstition, are of importance in support of H. P. Blavatsky's contention that there are occult powers in man. But it must be remembered that she forbade her pupils to waste their time and energy in developing them.

Madame Blavatsky suffered for venturing to teach the existence of magic; but she had good reason for her temerity, for she used it as an argument in favor of the existence in man of hidden powers which prove that he must be, at the core of his being, far greater than the mere commonplace personality of everyday life. While she drew a sharp distinction between the higher 'White' magic, and the lower, phenomenal, magic, she illustrated her point by instances drawn from reports accessible to scholars. The method was the best that was available in the scientifically materialistic and theologically superstitious age in which she wrote. It made people think on new lines, as perhaps Dr. Budge and others will do today. She says, in *Isis Unveiled*:

1st. There is no miracle. Everything that happens is the result of law — eternal, immutable, ever active. . . . there may be laws once "known," now unknown to science.

2d. Nature is triune. . . .

3d. Man is also triune: he has his objective, physical body; his vitalizing astral body (or soul), the real man; and these two are brooded over and illuminated by the third — the sovereign, the immortal spirit. When the real man succeeds in merging himself with the latter, he becomes an immortal entity.

4th. Magic, as a science, is the knowledge of these principles, and of the way by which the omniscience and omnipotence of the spirit and its control over nature's forces may be acquired by the individual while in the body. Magic, as an art, is the application of this knowledge in practice.

5th. Arcane knowledge, misapplied, is sorcery; beneficently used, true magic or WISDOM.

6th. Mediumship is the opposite of adeptship; the medium is the passive instrument of foreign influences, the adept controls himself and all inferior potencies. . . .

. . . MACIC is spiritual WISDOM; nature, the material ally, pupil and servant of the magician. One common vital principle pervades all things, and this is controllable by the perfected human will.— II, 587-90

The trinity of nature is the lock of magic, the trinity of man the key that fits it. ... the pure in heart see God.—Op. cit., II, 635

In reply to the question, Do we wish to affirm that the occult sciences ought to be studied and practised throughout the world? H. P. Blavatsky replied:

We would have neither scientists, theologians, nor spiritualists turn practical magicians, but all to realize that there was true science, profound religion, and genuine phenomena, before this modern era. . . We would have all to realize that magical, *i. e.*, spiritual powers exist in every man. . . . — *Isis Unveiled*, II, 634-5

FROM A STUDENT'S NOTE-BOOK

REATA V. H. PEDERSEN

"WHAT SHOULD BE KNOWN THAT ALL THIS MAY BE KNOWN?" How students of all the ages, each thinking of his limitations and each with the desire to understand the revealed teachings, must have pondered this question! We ask ourselves upon what shall we concentrate that *all this* that it is our privilege to hear from the Teacher shall be known.

When the question was asked, by one of the great Lodge, of Angiras, who was teaching as he had been taught by Bharadvaja the truth-bearer, the reply was that "two knowledges should be known"— the two, the Master explained, that were declared the higher and the lower knowledge by the knowers of the Eternal. And of these he said that the lower was that of the *Vedas*, and of rites and definitions, of verse and star-lore, the higher knowledge, so Saunaka who questioned was told, being that by which the UNCHANGING is gained — the unchanging and the 'unfading.' 'Enduring' is another word by which Angiras designated that which "the wise see well as the womb of the world."

Unchanging? — surely only in the sense that it is *ever* the source. Since contemplation of the source of all as unchanging would be contemplation of it as *limited*.

Unfading? — that is more easily agreed to for we perceive it not with the physical eye and it remains ever as we behold it with the eye of the soul; altering only in that it gains in gloriousness as he who beholds becomes more glorious.

Enduring? — yes, because the real quality to be ascribed is that it is; and thus it fills all of time.

Beautifully, it is the higher knowledge which is the more easily grasped. For knowledge of that which 15, as our source, is builded into every atom of man. We have only to *act* in answer to the urge, in answer to the desire to show forth, to become, "to grow into something" (which is the cause of all manifestation) to prove that this knowledge is builded into us. And such an act, unconsciously made, as we may say that it is, is yet as knowledgeable an act as the shooting forth of a bud from a stem — to reduce it to terms of every-day speech. And it is only through action - more self-conscious, refined by choice and perfected by spiritual will — that we may ever know ourselves as one with the source of all — know ourselves as the UNCHANGING. Conscious knowledge of ourselves as part of the Boundless is that which "should be known that all this may be known." (For further study see definitions of Parabrahman, Paramâtman, and 'Heresy of Separateness' in Occult Glossary (G. de Purucker) also the Mundaka-Upanishad.)

We know the Unchanging by *acting with it* on every plane of being, manifesting our real nature on each. To live consciously on the highest level requires refinement of action, which means that the action cannot be impulsive, cannot be personal, cannot be other than a manifestation of Radiance — as the sun's shining is such a manifestation of its real nature, its essential being. Our acts must be a 'giving off' of lifeenergy as a result of the vehicle through which we are manifesting on any plane having become so saturated with Divinity that the *source* and *vehicle* are one.

It may be thought that on a spiritual plane all action is spiritual. Even so, remembering that every plane is itself a composite one (sevenfold at least) it is possible to act on its lowest level of manifestation. It is possible to be less grandly spiritual. Is it not just such a thing as this *action less refined* — which separates into two classes those who achieve Buddhahood — that of the Pratyeka-Buddha and the Buddha of Compassion, who have made the choice between Liberation and Renunciation?

As for the lower knowledge, through knowing which "all this may be known," though we do not all have the opportunity to study the Rig-, the Yajur-, the Sâma-Veda, we do have the glorious opportunity of studying the teachings that are authoritatively those of antiquity, even though they are expressed in an Occidental language. We should seek to become so familiar with the exoteric and esoteric teachings both that we may hold any one of them in mind - its correctness unquestionable. There are few 'rites' which prevail in Theosophical Clubs and Lodges, but those existing are for the protection of the teachings and we should trust no one with them, nor need to make appeal to a companion-student that we may repeat correctly, if called upon to do so, any word or verse which may perhaps be used in the conduct of a group gathered for study. One should know these as a part of oneself. Suppose, since any group of whatever degree of progress exists for the sole purpose of seeking out the Truth about the Universe and Man, suppose then, that one should be asked to state this as the object of his study. Would we not testify to our understanding of that purpose if as we made such a statement, we were able to know ourself as a pilgrim of the ages, as a student for many lives; if we were able to visualize ourself not only as one who seeks the Way but literally as the Way?

This lower knowledge is a limited expression of the higher knowledge which has been recorded for us by those who have given their lives to the service of mankind. We must have it, for it is that which we in turn can pass on to others, if not by quotation of the exact wording, when the words hold the more recondite teachings, then by expressions which convey our sure knowledge of the Path we follow as the Way of Life. This lower knowledge is, I think, not set down that in reading it we may come to the higher, but that in knowing the higher we may through the lower express our knowledge. The great difference between the two, with reference to ourselves, is that we may have the lower and never make its teachings our act. But the higher knowledge and action are inseparably one. Acting with it is proof that we have it and the only proof. Yet when we have it we do not make an attempt to prove that we have, but do so prove this by being incapable of seeing the action *as ours*. In other words we do not separate ourselves from the Cosmos. And that is why, perhaps, that in the Upanishad in which the question of Saunaka and the answer of the Master are given we find that the word 'gained' is used. The higher knowledge is that by which

the UNCHANGING is *gained*. For in that sense gain means development — growth — growth from puny personal man to Cosmic Being.

A SERVANT TO MANKIND. How quickly we know a desire to follow the path upon which it is required of those who follow it "to give up self for the world, to have no personal property of their own, to give up life and all that there is to the holiest Cause they know," as is written of the disciples of the Life Beautiful in the *Golden Precepts of Esotericism*.

It seems, especially to the student of intense nature, that such a life would satisfy and quiet the emotions. It seems desirable; and one can vision onself dressed in flowing robes and with bare feet, asking alms. But it will be better to put away the robe where moths cannot get at it and first to harden the feet a little bit by getting them accustomed to shoes that cost much less than the ones now being worn — and to give the sum saved to the cause of Theosophy. For the path is easy to follow only to one of tranquil mind. Indeed, the true pathway cannot be perceived by those who have not their emotions in control. We can say that we would follow it, but doing so —. Who among us, if swayed by emotion would never 'strike back,' never lift a hand if the attack be upon ourselves only, never attempt to protect ourselves against libel and slander? Who!

When the desire is held by one who has been but a short time a student, it is apt to have arisen in answer to emotion and not with comprehension of the difficulties along this small old Path. But when after study, after striving, after aspiration that has continued for years, we come to a contemplation of our ability to follow it, lo, we find that already we have traveled it a little way — that the Path over the distant hill where lies the Temple of Wisdom is known to us of ourselves. We find that our desire to follow it is a re-awakened one — unfevered, quietly accepted, and we serve a purpose well when we can so direct ourselves along this pathway that all our thoughts and emotions and sensations, all our aspirations, volitions, and actions, are dedicated to the service of all living. Such a dedication, given in secret to the Higher Self — this has brought us to the Way followed by those who serve mankind. We know then, with a knowledge in which there is no personal satisfaction, that though we are servants we are dear to our Lord, cared for and protected in all things by his greatness.

And who is this Lord? Is he that one ahead of us on the path whom

we have called Teacher, who has brought, we may well decide, our soul to birth? No; the Lord is the *Inner Master* between whom and oneself there is no separation if we *will* to be with him. Between the high thought of the Lord and our action there is no interruption in vibration; the energy is one energy. The Eternal Self is the Lord and the servant is the personality, which together as one serve mankind.

DEFINITE AND UNEMOTIONAL THINKING. Was it not Pythagoras who demanded that those who desired to become his students should first study higher mathematics? This study is not one insisted upon now, fortunately for some of us, but that which the Master desired of students is demanded of us even today. Students need the power of concentration, of clear thinking; they need the discipline of the mind which is one of the results of the study of higher mathematics - and we too must be able to concentrate, to think clearly. We must discipline the mind, for the time comes, we are told, when such sacred teachings will be divulged that "they must be impressed upon the mind, forgotten ---but yet retained." I have wondered if this does not mean that the lives which go to make up the vehicle which we call the mind, but which are, in reality, but the instrument of MIND, must have these teachings stamped upon them so indelibly that when we in future incarnations pick them up the teachings are in force. Is not that part of the method by which knowledge of the UNCHANGING is builded into the atoms - into the very cell-structure of man --- the higher, more developed, the more consciously developed from the point of view of the human kingdom, that is? - impressing upon the lesser lives the True Teaching, the Secret Doctrine, so that when in their turn they have, in the course of their evolution, come to this same kingdom of humanhood, they will recognise the True from the False - as we all of us know we do so recognise our Teachers and the teachings. Could anyone convince you as to the Teacher — as to the teachings? Do you not know of yourself?

ELEMENTALS. I believe that in the study of these lesser lives which in their aggregate make up the physical man, and the life-principles lives which form the structure of his nerves and muscles and bones, and lives which on the higher planes form the corresponding structures of those planes — that we have a key to a vast storehouse of knowledge. I believe that the whole physical body of man could be changed from a state of illness to one of health by a conscious direction of these elemental beings who serve us; who 'perform' those actions of ours which, at least on the physical plane, we speak of as 'unconscious actions.' My belief is founded on — what? On hints that we find in all our books about the greater Beings to whose life our lives contribute; on the teaching of Hierarchies and on the basic teaching of Theosophy that the great is mirrored in the small.

Thinking now of physical man only, we must believe that we express ourselves always through vehicles formed of lesser lives, unless we renounce all our teachings and believe that the substance of muscles and nerves and bones, and the organs of our bodies and our glands, is made up of dead stuff —. When we think about it, the muscles and nerves respond to our thoughts and we consciously carry out our own will in action - in movement; bringing about result, through control of these elemental lives by our thinking selves. But for the greater part of our waking hours and for all of those we spend in sleep, the nerves and muscles and organs and glands 'carry on' their functioning without our conscious knowledge. Some functions of the human body are never done consciously as far as we know. But think of them all as being done consciously at the direction of a will in harmony always with the Divine Plan of Evolution, with the Natural Law. Think of the circulatory system in our bodies as mirroring the circulations of the Cosmos, and of that teaching that "the life is in the blood"— a teaching found in the Christian Scriptures too — and brood over the thought; and someday the student will know how to form the question about this teaching, and in knowing that, know the answer to it.

"As the law of the Universe stands, you either rise or fall by every thought that you have and by every act that you do"— thus have we been told. And what are a man's thoughts but living things, living vehicles capable of expressing in every part of them DIVINITY — if man *wills* that they shall? What are man's actions but expressions, through energies composed of living things, of his will?

Yet the place of this teaching and its purpose — if that which I believe be true — is not that these lesser lives shall express the health that one man shall desire; neither is the teaching nor its purpose possible of realization when the desire is a personal one, but when the desire is that the stronger shall help the weak, when man wills to help the evolution of the lives which are lower in the scale of conscious knowledge than himself, when he overshadows them with his greater knowledge, *enlightens* them from the compassion of his heart. When we humans act toward them as those who are called the Mânasaputras acted toward us — namely, when we so live as to awaken the divine flame in these sleeping egos (for such they are now and such we were in the middle period of the Third Root-Race of the Fourth Round on this globe), then — oh, then your soul will "shine through your body like a lamp shining through glass." For your body will be in the perfect health of true harmony and can offer no obstruction to the Radiance. Then you will be the Pathway to the Heart of the Universe. You will be the Loving, the Compassionate, the Understanding — you will have gained the higher knowledge which must be known "that all this may be known."

"UNTIRING, DEEP THEY DUG"

JALIE NEVILLE SHORE

Untiring, deep they dug that sandy track, Till, in the trodden way, they water found. So let the sage, in perseverance strong, Flag not nor tire, until his heart find Peace.

THIS bit of verse from a collection of ancient Buddhist legends epitomizes a story about a caravan that traveled across a desert, and because of a mistake threw away its water. Although the leader of the caravan directed that a well be dug, all but one of the number gave up in despair before water was found. This one persevered until he found water and thus saved the entire caravan from destruction.

To a Theosophist, this story presents a picture of just what has happened to man who, traveling across the desert-waste of surface experiences, beguiled ever and anon by mirages of quick results obtained from easy labor, has thrown away his canteen of spiritual knowledge and now is faced with the necessity of digging deep down through the sandy tracks of his unstable nature until he finds that cooling well-spring of pure, clear Knowledge which alone will quench his thirst and give him lasting Peace.

Perhaps we hear more of hunger for food for the body than we do of the thirst of the soul for knowledge. Much is being said about the starving millions of one portion or another of the globe and much more

is being said in an effort to keep other millions from the verge of starvation. The truth of it is that the world *is* suffering from hunger, but it is a more gnawing, less easily appeased kind of hunger than that which is suffered by the lack of bread; for it is a hunger for that which will feed the soul, instead of that which will satisfy the bodily craving.

There are times when the world tries to laugh off the seriousness of its condition. But behind its mask of a devil-may-care heedlessness it is really desperate. It is evident even in the vulgar foolishness of the age, though that foolishness be a wild snatching for husks of happiness, no matter who pays the bill, or an indulgence with unapologetic frankness in anybody's recommended hedonism.

In its serious endeavors — in its music, art, and literature, for instance — this same note is felt. There is an accentuation of the extreme, whatever the theme attempted: if beauty, it is made most beautiful, not mildly so; if ugly 'realism,' it is done with unfailing hideousness; if tragedy, stark tragic depths are painted instead of the tear-provoking sentimentalism of the generation just passed. In the field of social welfare a similar note of excess is struck: for here are to be found those who are never so happy as when they are prostrating themselves in often unwise revolutionary endeavors to relieve the world of its aches and pains by the constant administration of unproved panaceas concocted for the most part from weird and distorted notions.

Thus it is easily seen that the people of the world might be divided into two main classes: those who appear always to be teetering on the brink of hell, and those who seem eternally to be approaching heaven with fervent hallelujahs. Few there are who seek the vast sweet meadows of calm intelligence and spiritual understanding.

But those few! How we thank the immortal gods for them! For they are the feeders of this hungry world of ours and they know whereof is the Source of their Supply. Knowing that Source they also know well the hungry horde, most of whom are not yet hungry enough to be satisfied with wholesome, whole-grained, spiritually leavened bread.

They also know their responsibilities as leaders of this caravan that, traveling across the desert, thirsted for want of water which it had thrown away. They are the leaders who, one by one, have taught that the anguish of thirsting souls may be assuaged by digging through the depths of Self until the Well of Knowledge from which springs Peace is found. But for the wisdom of these leaders the caravan would have perished on the desert wastes long ago, dying for lack of knowing what to do. And just as in the story in which only one was obedient and faithful to his leader's words of direction, few there are who persevere to the depths of Truth once they have begun the digging. More, indeed, there are, who scoff, and in their egoistic skepticism let the leader's voice go unheeded. Some there are who, having gone a certain depth and having found but a seepage-content, deceive themselves with that which is mingled too much with the grime and soil of the earth.

But those persevering ones — what did they find as they dug through the sandy tracks of their own natures? The first thing was an ancient precept — a golden one — that had been left for them by the Sages and Seers (other leaders) throughout the ages. And picking it up they found that it said: *Man, Know Thyself. Go Within.* So they began to investigate this Self through which they had to bore before they could hope to strike the water they had been assured they would find.

As they dug in the stratum of their own natures they found it composed of at least seven different principles so interpenetrating that it was difficult at first to distinguish one from the other. And ultimately they discovered that what appeared to be the last principle was really the first: Âtman, the Universal Child of the Causeless Cause — pure Divinity from which the rest were sprung. As they observed and learned and systematized their findings many evidences of evolution showed themselves. They found, for example, that some of the seven principles were more evolved than were others, and those they were most familiar with were those principles least evolved.

The very top soil (or principle) was most easily recognised for it was the one they were most familiar with: the physical. They found, however, that although it appeared pretty in some places, and gross and hard in others, it crumbled most easily and finally disappeared into apparent nothingness. They wondered what it was that held it together at all and, wondering, they discovered a second kind of structure — the Astral. It was while digging in the Physical and the Astral that they found marked evidences of two strongholds of Ancient Truth: the Doctrines of Karman and Reincarnation. For here they found effects of causes once begun, some of which were pleasing, others of which appeared as sorry failures; and here also they found interesting similarities, unusual resemblances, distinguishing characteristics that invited further investigation, and much unfinished business — work that had been

left as though the laborer intended to return and take up his task again.

And then they found a silt called the Mental which had two aspects: a coarse mental soil in which the passions and desires were playing, and a fine-grained mental soil in which the intellectual powers had full sway: a Lower Manas and a Higher Manas. Running through all of these principles they found a fifth — the Vital principle which enlivened them all. In the mental silt they uncovered a theater in which Personality played a leading part and to which they soon discovered they had all become very much attached. They were discovering so many things that they turned and asked the leaders near by what they should do with them all. And the leaders answered, saying: "Study them, and use them, but keep on digging."

Although they frequently wearied of their task they nevertheless persevered; and in persevering found that it behooved them to keep their tools well sharpened, for, in trying to penetrate the Higher Intellect which led them toward the Spiritual Principle they ran into snags of pre-conceived notions and diamond-hard rocks of sophisticated science and philosophy. But once this spiritual depth had been plumbed they knew no more doubt or fear for here was that first fountain-flow issuing from the Divine — that Well of Unfathomable Depth which they had labored to discover and partake of. And having reached the deeps of their own Being they sipped the waters and turned to offer peace to others.

There were also many other things that these few discovered things that you and I are discovering as we dig from day to day slowly, laboriously, often painfully. This self-examination is no child's play nor is it always flattering. Most generally is it painfully embarrassing. In the cold, clear light of straight thinking some aspects of our hidden natures seem far better off behind the scenes. In the full glare of an impartial spotlight they are not always pleasing. The trouble so often is that they seem ever bent on trotting themselves out on our little stages to do their silly 'stunts' until we, ourselves, see them in the spotlight of Truth and recognise the inanity of their performances. It is only then that we begin to see these shallow actors as worse than second-rate and so demand more capable performers **in** more characterful rôles — rôles more representative of actual Truth.

These silly little actors, of course, are our own natures: deceit, selfindulgence, vanity, passions, enmity, bitterness, regret, pride, hate, egoism; and they are all — every one of them — progeny of that childprinciple of ours called Lower Manas, that ill tempered, undependable, unruly offspring that is ever seeking its own way and never knows when it has it! A trying job it is to demand that these actors, whom we ourselves have trained and indulged and applauded, now change not only their rôles but their technique. But that is what early initiation into Occultism really is: a demanding of *ourselves* that we play our parts more respectably.

It is likewise a continuous series of tests — tests which must be passed before a full rich inner growth is realized. These tests do not necessarily come when we expect them — at the big moments of life when we would be a bit disappointed if they were not just as stupendous as they are said to be. We cram for the hardest examinations and then stumble and fail over something we had thought so simple as to be of no importance. Little things in all strata of life are the most trying. A composer may suddenly conceive a magnificent musical climax but the entire inspiration will be lost if he fail in the steps that lead up to the climactic reaches so nobly conceived. It behooves us all to give attention to the smallest details of our daily living.

One of the Masters behind the modern Theosophical Movement said:

It is the first rule in the daily life of a Student of Occultism never to take off your attention from the smallest circumstances that may happen, whether in your own or in your fellow-workers' lives. Once an earnest mystic joins the T. S. he is, invisibly and unconsciously to himself, placed on quite a different plane from those around him. There are no more meaningless or trifling circumstances in his life, for each is a link purposely placed in the chain of events that have to lead him on, forward to the Golden Gate. Each step, each person he meets with, every word uttered, may be a word purposely placed in the day's sentence with the intention of giving importance to the chapter it belongs to, and such or another meaning (Karmic) to the volume of Life.

Thus Theosophists are taught to meet the daily tests of their lives — tests which, when passed, are a proving unto themselves the Truth of that which has been taught them. Thus Theosophists work — failing sometimes, but always picking themselves up and going forward again, with an ear for the words of our second Leader, William Q. Judge:

The Past! What is it? Nothing. Gone. Dismiss it. You are the past of yourself. Therefore it concerns you not as such. It only concerns you as you now are.

In you, as now you exist, lies *all* the past. . . Then regret nothing, not even the greatest follies of your life, for they are gone, and you are to work in the present which is both past and future at once. So then, with that absolute knowledge that all your limitations are due to Karma, past or in this life, and with a firm reliance ever now upon Karma as the only judge, who will be good or bad as you make it yourself, you can stand anything that may happen and feel serene despite the occasional despondencies which all feel, but which the light of Truth always dispels.

And this 'light of Truth,' how is it gained? Another Leader, Katherine Tingley, said:

To have an open mind is the first requisite for the earnest inquirer after spiritual knowledge and happiness — to be ready to receive something more than one has had before and to realize that in order to reach the depths of one's own nature and to find there the answers to some of the many perplexing questions one meets every day, one must have more knowledge; and if he cannot have full knowledge, a belief that there is more and higher knowledge for man.

And to reach the 'depths of one's own nature' still another Leader who stands ever ready to direct and help now reiterates the teaching of the Sages and Seers of all ages, saying:

'Look within. Man, know thyself!' Divinity is at the heart of you. It is the root of you. It is the core of the core of your being; and you can ascend along the pathway of the spiritual self; passing veil after veil of obscuring selfhood, until you attain unity with that inner divinity. There is the most sublime Adventure known to man — the study of the Self of man.

Thus you will climb the mountains not merely of Parnassus and of Olympus, but you will in time, by following this inner pathway of self-knowledge, grow **so** greatly in understanding and in inner vision, that your eyes will take in ranges and sweeps of inner light, unveiling to you the most awful, because the holiest and the most beautiful mysteries of the boundless Universe. Every one of you is a living and incarnate god. Be it.—*Questions We All Ask*, Ser. I, p. 192

This is the 'trodden way' where water is to be found — the way of the persevering sage who flags not nor tires 'until his heart find Peace' that he may give to others.

3

"THE best and most important teacher is one's seventh principle centered in the sixth. The more you divest yourself of the illusionary sense of personal isolation, and the more you are devoted to the service of others, the more Maya disappears." — William Quan Judge

A PARABLE

A. Z.

THERE were two friends, Lanoo and Dominus —

The first, a gardener, and the second, one Expert in gardening, through experience Able to give to others help, and thus, Journeying afar and oft-times, to impart Knowledge of soils and tillage, seeds and flowers,

Having no time to tend and rear himself, The flowers he loved to think of in his heart. And knowing which, the gardener, Lanoo, Said "I will set aside a plot for thee Wherein shall grow rare plants, all set in soil Such as you advocate, a chosen few.

And since none others care for these strange flowers,

They shall be yours to do with as you will." So Dominus took leave and went afar, And Lanoo watched his garden through long

hours.

Time sped. Lanoo, content to cultivate His garden, thought therein of Dominus, Whene'er he bent him to his humble task; And longed to have some tidings of his friend. And while he tended all, his greatest care Was for the special plants in special soil; And as the young shoots broke the ground and grew,

He prayed they might prove blossoms sweet and rare.

Then one fine day the happy tidings came, "Dominus homeward turns — soon will be here."

Lanoo, rejoicing, hurried to his plants, And saw the beds and borders all aflame With riot of gay colour, sweet with scent Of chaliced perfume. "Let me but be sure Dominus' plot hath yielded fairest flowers!" Lanoo exclaimed, "and I shall be content." Then stooped he o'er that portion set apart, And viewed with anxious care each flower and bud.

And fair they were — all fair — save only two

Which had a worm — a canker at the root,

So hidden none might see the threatened blight,

Scarce could Lanoo himself be sure t'was there,

So sweet the flower, so green and strong the shoot.

"Ah Dominus!" he cried. "What have we done,

Thou with thy soil, I with my lack of care? Rather than give to thee a tainted growth Among thy flowers, sweet friend, I'll give thee none!"

And saying thus, he built a funeral pyre

Of all the blossoms in that special bed,

Lest there should seed but one imperfect fruit;

And stooped with tearful eyes, and lit the fire!

"Where are the plants you promised me, Lanoo?"

Quoth Dominus, returned from journeying.

- "Alas, my friend, I failed," the other said. "Not worth your notice were the flowers I grew."
- "Not one!" exclaimed his hearer, "from such soil!"
- "Yea, there were some," Lanoo made answer slow,

"But I perceived a blight in two of them, That, left, might tend the other plants to spoil."

So, disappointed, Dominus took leave,

With words of sympathy and wise advice;

And once again, Lanoo prepared the ground,

With fresh resolve, not daring much to grieve.

"This time," he murmured, as he hoed and raked,

"There shall be none but plants of purest growth."

So tenderly he sowed, and watered them

Oft-time with tears, till Spring the green shoots waked.

Then with the Summer, blossomed such a store

Of loveliness, Lanoo was full of joy,

Knowing his work was perfect. Then came word

"Farewell Lanoo! Thy friend returns no more.

He whom thou lovedst is promoted now

To other fields — has other work to do,

To teach on wider plains the husbandmen How to prepare the ground, to hoe and

plough."

No further read Lanoo, but, wild with grief, Strode to his garden, on destruction bent.

- "For there are none to love my plants;" he cried.
- "Let me uproot them, stalk and flower and leaf.

Those of my household love my roses fair, Tulip and marigold, and daffodil;

But who is there to love the asphodel,

The edelweiss, and Alpine gentian rare?

O bitter thought, that Dominus no more

Will walk with me among the flowers we loved!

Why did I burn the healthy with the ill? Alas, for all the blooms he never saw!"

So crying, with a gesture cruel, wild,

He seized a scythe, intent but to destroy;

When, 'mid the flowers, bright-haired, and radiant-faced,

He saw the figure of a little child;

Who bent, all unafraid, amid the bees

- Above the ranks of shining asphodel,
- Then turned and spoke, "Oh tell me, dear Lanoo,

How I may learn to grow such flowers as these.

And at those words, the sad heart of Lanoo Leaped up; and all his sorrow fell away Beneath the wonder of that childish gaze, Which told him he had further work to do.

"Ah, Dominus!" his heart cried, "though you go

To other lands, and never see me more,

For the sweet sake of all the flowers you loved,

I will impart to others all I know.

Perchance among these little ones, my toil Will yield rich harvest of a nobler growth, And thy dear memory blossom like the flowers,

Enriched by contact with a purer soil."

And with the thought a strange and tender breeze

Passed like a benediction o'er the flowers, Bringing a mingled fragrance from atar,

The scent of lotus-flowers and redwood trees;

- And for a space, Lanoo, the gardener, saw
- A fairer garden, stretching to a sea,
- And glimpsed the figure of the friend he loved,

Walking with shining face upon that shore.

STUDIES IN ORPHISM*

F. S. DARROW, A. M., PH. D. (Harv.)

IV. THE MYTH OF ZAGREUS-DIONYSOS

1. The first Mystic Marriage of the divine All-Father with the mighty Earth-Mother and the first birth of the divine Son as Zagreus.

A^S the Orphic teachings revealed the story of cosmic evolution or the formation of the Macrocosm by means of an allegory, centered around seven mythological figures, Orphism in a similar fashion expounded its teachings in regard to the Microcosm or the Little World (of which man is the center), by means of a mythical narrative related of Zagreus Dionysos, the savior of Greek mythology, and it was this story which supplied the subject-matter of the Dionysiac Greek Mystery-drama.

In the Orphic Theogony the wife of Zeus, the Demiurge, the divine All-Father, is not Hera the Homeric Queen of Heaven, but the mighty Earth-Goddess in her twofold aspect as Demeter, the Divine Mother, and Kore, the Divine Maid, appearing both as the immortal goddess Persephone the Virgin Queen of the Dead, and as the mortal maid Semele, later immortalized as Thyone the inspired, the mother of the mystic savior.

Not only are Demeter, Persephone, and Semele-Thyone in essence one, the Earth-Goddess in her three aspects as wife, mother, and daughter, but Zagreus-Iakchos, the divine Son (child of Zeus in the form of a dragon, and of Demeter-Kore) is from one point of view at least identical with Zeus the Demiurge, and Phanes, the first of the macrocosmic powers, the germ of manifested life. These shifts in personality with an identity of divine essence are common in mythology. Though the personages differ the Deity impersonated is one, for the various persons represent, as it were, merely different stages or aspects of one and the same life.

Zagreus, both the holy Babe and the mighty horned Hunter, the mystic savior of Orphism, is first mentioned in extant Greek literature in

^{*}Reprinted from THE THEOSOPHICAL PATH, Vol. III, No. 3, September, 1912.

a verse, preserved from the lost Epic, the *Alkmaeonis*, which runs as follows:

Holy Earth and Zagreus, greatest of all the Gods.

As a word, Zagreus seems to have at least three distinct meanings: first, the mighty Hunter, that is, the pilgrim Soul; secondly, He that takes many captives, that is, the Lord of the Dead; and thirdly, the restorer to life and strength, or the King of the Reborn.

Zagreus from the moment of his birth is his father's favored son, proclaimed as successor of Zeus, who, placing the symbols of power, the scepter of Heaven and a golden apple, in the child's hands, declared to the assembled Gods:

Hear ye, O Gods, over you I place a King.¹

This declaration aroused the jealous wrath of Hera who forthwith plotted the speedy destruction of Zagreus.

2. The Agony or Passion of Zagreus

In the pursuit of her murderous design against the holy Babe, Hera released from the depths of Tartaros the pent-up fury of the dethroned earth-born Titans, upon the condition that they would become the ministers of her vengeance, and slay Zagreus. To this they agreed. The Orphic fragments mention fourteen different Titans, seven male and seven female,² which are referred to by Proklos as the "divine Titanic hebdomads." Some scholars, under the lead of Faber and his "seven Arkite Titans,"⁸ have attempted to distinguish between seven good Titans and an indeterminate number of evil-minded ones, the murderers of Zagreus, but such a distinction does not seem justified in Orphic theogony, which apparently was content with representing the Titanic nature as dual, composed of divine and earthly elements, without distinguishing between two separate classes. The number seven is evidently part and parcel of the Orphic number-symbology and has an obvious connexion with that portion of the myth which tells of the dismemberment of the body of Zagreus.⁴

Hera bided her time and carried out her plot during the temporary absence of Zeus. Apollo and the Curetes, the appointed guardians of the

^{1.} Proklos In Cratylum, p. 59. 2. Proklos In Timaeum, V, p. 295.

^{3.} Faber, George Stanley: A Dissertation on the Mysteries of the Cabiri, 2 vols.,
Oxford, 1803.
4. Proklos In Timaeum, III, p. 184.

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infancy of Zagreus, were enticed away from their charge by her wiles. Whereupon, the Titans with their naturally black faces artificially whitened by means of a mixture of chalk and clay, stealthily approached the Liknon, or cradle-basket, wherein the holy Babe lay surrounded by the symbols of power which had been entrusted to him by his fond father. Each Titan carried a false toy with which to beguile the child away from the protection of the nursery. One carried the Thyrsos or sacred Bacchic wand, another a top, and a third a mirror. Zagreus relinquished his symbols of power and reached for these proffered toys. His fancy was especially captivated by the mirror, and while he was engaged in viewing his own image in it he was suddenly surprised by the assassins. In vain he tried to escape from their fearful grasp by constantly changing his shape, until finally in the form of a bull he was overcome with dismay at the magic bellowings caused by Hera. Thereupon his body was torn into seven or fourteen pieces, that is, twice seven as in the Egyptian mystery-myth of Osiris. The dismembered limbs were first boiled and after roasted by the Titans who then began to devour the flesh; but Zeus returned, and upon discovering their wickedness blasted them with his thunderbolt, and from their ashes sprang into being the human race. Thus the Orphic poet sings:

The Earth-born [Titans] who showered down from heaven

Their blood, the grievous germ of birth [that is, of incarnation in the material world], from which sprang

The race of mortals, who ceaselessly inhabit the boundless earth.⁵

And again:

O mighty Titans, who from heav'n and earth Derive your noble and illustrious birth, Our Fathers' sires, in Tartaros profound Who dwell, deep merg'd beneath the solid ground, Fountains and principles from whom began Th' afflicted, hapless race of man.⁶

Athena and Apollo were both present with Zeus at the time of the destruction of the Titans, and the goddess of Wisdom, discovering that the heart of Zagreus was still palpitating, forthwith handed it to her father, as thus described by the great Platonist Proklos in his Hymn to Athena:

5. Orphic Argonautika, 12. 6. Orphic Hymns, xxxvii, Taylor's Translation.

Once by thy care, as sacred poets sing, The heart of Bakchos, swiftly-slaughtered king, Was saved in aether, when, with fury fir'd The Titans fell, against his life conspired: And with relentless rage and thirst for gore, Their hands his members into fragments tore: But ever watchful of thy father's will, Thy pow'r preserv'd him from succeeding ill, Till from the secret counsels of his sire, And born from Semcle through heavenly fire, Great Dionysos to the world at length Again appeared with renovated strength.⁷

In accordance with the commands of Zeus, Apollo gathered the scattered fragments of the limbs of Zagreus and placed them in a coffin near the Omphalos or sacred conical stone at Delphi, marking, according to Greek myth, the navel of the earth. In historic times, if we may trust the account given in the Chronicles of the Byzantine historian Malalas - an account which seems to be derived from the lost Atthis of Philochorus (3rd century B. C.), the coffin was thus inscribed: "Here lieth dead, the body of Dionysos, the Son of Semele."8 At first the actual wording of the epitaph may seem strange, as we might expect that it would have read: "Here lieth dead, the body of Zagreus, the Son of Demeter." Perhaps the explanation is to be found in the fact that the Semele myth was exoteric property and commonly current, while the story of Zagreus was familiar only to the Orphic Mystics. The close connexion of Dionysos, the spiritual night-sun, with Apollo, the daysun, noted before, is also shown by the circumstance that the Delphic shrine was occupied each year between Christmas and Easter not by Apollo, who then withdrew to the distant land of the Hyperboreans, but by Dionysos.

3. The second Mystic Marriage of the divine All-Father with the Earth-Goddess in the guise of the mortal virgin Semele; and the second birth of the divine Son, the God-Man, as Dionysos.

"A Virgin shall conceive and bear a Son."

The common exoteric form of the Dionysiac Myth regularly repre-

^{7.} Taylor's Translation.

^{8.} Malalas, Chron., II, p. 45 ed. Bonn. Philochoros Frag. xxii.

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sents the god as the son of Zeus by the mortal maid Semele, the daughter of Kadmus, the Man from the East, the Founder of Thebes, the mystic city of the seven gates. The mystery-key to this is given in the following fragment of Apollodoros:

There is also a legend which says that Dionysos was born of Zeus and Earth: from Earth called Themele⁹ because all things are so to speak placed in it as a foundation, which by changing one letter [the theta] and by substituting therefor an S, the poets call Semele.¹⁰

Therefore, Semele is merely one of the many variant forms assumed by the Earth-goddess, as mother and maid. She is none other than Demeter-Kore in the guise of a mortal woman, to whom is entrusted the still beating heart of Zagreus. Hera, upon perceiving that she had failed to destroy Zagreus by having him dismembered, transformed herself likewise into a mortal woman, into Beroë the aged nurse, who, when the newly-formed life arising from the beating heart of the old was in its seventh month (again the Orphic septenary), succeeded in poisoning the mind of Semele with suspicion by insinuating that the lover, who had given this life to her keeping, was not the mighty King of Heaven but some human impostor bent on deceiving a poor maid. Thereupon, Semele at the next visit of Zeus in human form, after exacting from him a promise to grant whatever she might ask, requested him, if he was really the father of gods and men, to appear to her in his full majesty. Zeus, knowing that mere humanity may not look upon unveiled Divinity and live, tried to evade the granting of this request, but bound by his spoken pledge, he was forced at length to yield to the importunities of Semele and to appear in his true form amid thunder and lightning. As such a vision was unendurable to mortality, Semele, the human form of Kore, was destroyed, but the holy Babe was for a second time saved from destruction, inasmuch as Zeus broke his own body and sewed the child up in his own thigh, whence, at the expiration of the full time of nine months, the life that formerly was Zagreus, was reborn as Dionysos, the risen savior, "He of the Two Portals," "The Thrice Begotten."

"Unto us a child is born, unto us a Son is given!"

^{9.} Which word is here regarded as a variant form of the Greek word $\theta_{\ell\mu\ell}\partial\lambda_a$, meaning that which is first laid or placed — the foundation.

^{10.} Apollodoros, Frag. xxiv or xxix, apud Joan. Lyd. Cf. also Hesychios sub voce Semele.

From the author of the *Philosophoumena*, or Refutation of all Heresies — presumably the Patristic writer, Hippolytos — we learn that the revelation of the sacred birth of the Mystic Savior formed the crowning act of the highest Epoptic or apocalyptic rites of the Eleusinian Mysteries, for he says, while expounding the doctrines of the Christian Gnostics, known as Naasenes:

The Athenians when they initiate at the Eleusinian Mysteries exhibit to the Epoptae [the highest mystics] the mighty and marvelous and most complete apocalyptic mystery, an ear of corn reaped in silence. Now, this ear of corn the Athenians believe represents the great and perfect Light, which proceeds from That which is formless, as the Hierophant, himself . . . by night at Eleusis under the light of a bright flame enacting the great and unutterable mysteries, cries out in a loud voice: "Holy Brimo hath borne a consecrated Son, Brimos," which is to say, the mighty Goddess hath borne a mighty child; and holy, holy is the birth that is spiritual, that is heavenly, that is from above, and mighty is he that is so born.¹¹

That the birth thus referred to is the second birth as Dionysos the risen savior, and not the first birth as Zagreus, is shown by the fact that it was represented as a part of the highest epoptic rites, and we learn from Clement of Alexandria that Brimo was a title of the Earth-Goddess.¹² Further light as to her identity with Demeter-Kore-Persephone-Semele is to be gained from the following verses of Apollonios Rhodios, who thus describes a spell woven by the witch-princess Medeia:

When seven times she had bathed her in waters unresting that glide, And seven times upon Brimo, the Nursing Mother had cried — Night-wandering Brimo, the Underworld Goddess, the Queen of the Dead.¹³

Dionysos, the reborn God-Man, has his birthday at Easter, at the joyful time of the resurrection of the Earth in "his own holy Spring." Therefore, a paean, recently discovered at Delphi, thus refers to the God:

Evoë, Bakchos, hail, Paean [Healer] hail! Whom in sacred Thebes, th' mother fair, She, Thyone [that is, Semele], once to Zeus did bear; All the stars danced for joy. Mirth Of mortals hailed thee, Bakchos, at thy birth.¹⁴

Very suggestive are the following references to the tale of Dionysos, "the All-Father's mystic Son," from that wonderful mystery-play of Euripides' old age, *The Bacchae*:

12. Exhort. II.

- 13. Argonautika, III, 860-862, Way's Translation.
- 14. Miss Harrison's Translation based on the text as established by Dr. H. Weil.

^{11.} Philosophoumena, V, 3.

Dionyse is God, no God more true nor higher.¹⁵

Appear, appear, whatso thy shape or name O Mountain Bull, Snake of the Hundred Heads, Lion of the Burning Flame! O God, Beast, Mystery, come!¹⁶

Oh, bring the joy-bestower, God-seed of God, the Sower.¹⁷

Whom erst in anguish lying For an unborn life's desire As a dead thing in the Thunder His mother cast to earth!

For her heart was dying, dying, In the white heat of the fire: Till Zeus, the Lord of Wonder Devised new lairs of birth: Yea, his own flesh tore to hide him, And with clasps of bitter gold Did a secret Son enfold.¹⁸

That same Babe that was blasted by the lightning flame— Was re-conceived, born perfect from the thigh Of Zeus, and now is God!¹⁹

Iakchos, Bromios, Lord, God of God Born!20

God's true Son, in fulness God, Most fearful, yet to man most soft of mind.²¹

All hail, God of the Voice, Manifest ever more! Dionysos, Child of the Highest!²²

Thou Mystery, we hail thee by thy name!²³

The Babe of God, the Mystery! When from out the fire immortal To himself his God did take him, To his own flesh, and bespake him: "Enter now life's second portal,

^{15.} V. 366, Murray's Translation.16. V. 777, Ibid.17. VV. 1017-1020, Ibid.18. VV. 88-98, Murray's Translation.19. VV. 243-245, Ibid.20. V. 725, Ibid.21. VV. 860-861, Ibid.22. VV. 1032-1038, Ibid.23. V. 67, Ibid.

Motherless Mystery: lo I brake Mine own body for thy sake, Thou of the Twofold Door, and seal thee Mine, O Bromios," — thus he spake — "And to thy land reveal thee."²⁴

4. The Triumph of Dionysos

Hera, nothing daunted by the birth of Dionysos from the thigh of Zeus, continued to harass the god, who was first placed under the care of Ino and Athamas. Both of these were frenzied by Hera, so that Zeus was forced again to interpose his divine power in order to save his Son, whom he temporarily transformed into a ram. The care of the child's nurture next devolved upon the nymphs of Mount Nysa who succeeded in bringing him up safely within a cave. Finally, when Dionysos had grown up into young manhood, Hera cast him into a state of frenzy and forced him to wander constantly over the face of the earth, not only throughout Greek lands but even throughout India and Egypt and as far westward as Spain, dooming the god everywhere to meet with mighty opposition. But eventually he overcame all obstacles and was everywhere successful in establishing his Mysteries.

The Triumph of Dionysos is thus described by Euripides in *The Bacchae.* The god himself is the speaker:

Behold God's Son is come into this Land Of Thebes, even I, Dionysos, whom the brand Of heaven's hot splendor lit to life, when she Who bore me, Cadmus' daughter Semele, Died here. So changed in shape from God to man,

I now do come to Hellas — having taught All the world else my dances and my rites Of Mysteries to show me in men's sight Manifest God.

born of Semele to Zeus. Then to another land, when all things here Are well, must I fare onward, making clear My Godhead's might . . .

though I veil it with the wan Form of things that die and walk as man.²⁵

Mine is the soul of that dead life of old.26

^{24.} VV. 521-529, *Ibid.* 25. VV. 1-5, 20-22, 53-54, Murray's Translation. 26. V. 181, *Ibid.*

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Later on in the play, the Maenads or inspired women, followers of Dionysos, sing:

He will come to thee with dancing, Come with joy and mystery: With the Maenads at his hest, Winding, winding to the West.²⁷

Lo, this new God, whom thou dost flout withal, I cannot speak the greatness wherewith He In Hellas shall be great!²⁸

Hard heart, how little dost thou know what seed Thou sowest! Blind before, and now indeed Most frenzy-fraught! . . . Wise words being brought

To blinded eyes will seem as things of nought.²⁹

'Tis thine own impurity That veils Him from thee.³⁰

Is it so hard a thing to see — That the Spirit of God [that is, the mystic Savior], whate'er it be The Eternal and Nature-born — these things be strong? What else is wisdom?³¹

Therefore I counsel thee, . . . Receive this Spirit whoe'er he be, To Thebes in glory. Greatness manifold Is all about Him. Do thou let Him live; For if he die, then Love herself is slain, And nothing joyous in the world again.³²

Oh, had ye seen Truth in the hour ye would not, all had been Well with ye, and the Child of God your friend.³⁸

As the lord of life and death, as the sinking and the rising sun, as the Ruler of the Under-world, and as the principle of vitality, breathing in beauty and freshness from

27.	VV. 565-570,	Ibid.	28. VV. 271-273, I	bid.
2 9.	VV. 358-359,	480, Murray's Translation.	30. V. 502, Ibid.	
31.	VV. 895-898	Ibid.	32. VV. 769-774, I	bid.
33.	VV. 1342-134	4, Ibid,		

the ground Dionysos is the Earth-cleaver, as he is the Earth-shaker. The gates of Hades cannot prevail against him, nor the bars of earth restrain.³⁴

Therefore, after triumphing throughout the world, he descended into Hades, the lower world, and led forth his mother Semele, rechristened as Thyone, the inspired,³⁵ who thereafter among the Olympian divinities shone forth in radiant splendor as the divine mother and universal queen.³⁶ In after times the Troezenians showed the place whence the Twain had arisen, within the sacred precinct of their temple of Artemis Soteira;³⁷ but the Argives maintained that Dionysos had emerged with his mother from the Alcyonian Lake.³⁸ So the two Divinities, rising from the depths of Hades, ascended up unto Heaven and have ever thereafter ranked not only as divinities of earth, but of heaven as well.

5. EPITHETS OF DIONYSOS

Dionysos is, above all, polyonymos, a God of many names, and polymorphos, of many forms. Most of his epithets, however, are readily explained by a knowledge of the complete Dionysiac Myth, as the myth was developed in the Greek mysteries. They refer especially to his twofold character as the suffering and mortal god Zagreus, and as the immortal and reborn Savior. Thus, with reference to his two mothers, Demeter and Kore-Semele, he is *dimetor*, having two mothers; *diphues*, twonatured; *dithyreites*, He of the Twin Entrances; and *dithyrambos*, He of the Two Portals. He is *trigonos* or thrice-born: first, born as Zagreus; secondly, born prematurely as a seven-months' child at the death of Semele; and thirdly, born maturely from the thigh of Zeus. He is *triphues*, of threefold nature, as the Producer, Preserver, and Destroyer. He is fireborn and thigh-nurtured. Thus in the Orphic Hymns the poet sings:

> Loud-sounding Dionysos most divine, Inspiring God, a twofold shape is thine: Thy various names and attributes I sing, O first-born, thrice-begotten, Bakchic King.³⁹

^{34.} Robert Brown, Jr., The Great Dionysiak Myth, Longmans, Green and Co., 1878, II, p. 31.

^{35.} Apollodoros, III, 45.

^{36.} Orphic Hymns, xliv; Nonnus viii, 409.

^{37.} Pausanius, II, 31, 2.

^{38.} Pausanius, II, 37, 5; Clemens Alexandrinus, Exhort. p. 22.

^{39.} Orphic Hymns, xxx, 1-4, Taylor's Translation.

Born of two mothers, honor'd and divine: Lysian, Evian Bakchos, various-nam'd, Of Gods the offspring, secret, holy, fam'd.⁴⁰

From fire descended, raging, Nysian king,
From whom initiatory rites do spring,
Liknitan Bakchos, pure and fiery bright,
Prudent, crown-bearer, wand'ring in the night:
Nursed on *Mount Mero*, all-mysterious pow'r,
Triple, ineffable, Zeus' secret flow'r:
Ericapaeus [one of the titles of the macrocosmic Phanes], first-begotten nam'd
Of Gods the father, and the offspring fam'd,
Bearing a scepter, leader of the choir,
Whose dancing feet, phrenetic furies fire....
Born of two mothers, Amphietos bright:
Love, mountain-wand'ring, clothed with skins of deer,
Apollo golden-ray'd, whom all revere.⁴¹

A paean in honor of Dionysos recently discovered at Delphi, thus begins:

Come, O Dithyrambos [God of the two portals], Bakchos come,
Evios [God of ecstasy], thyrsos-lord [Bearer of the mystic wand], Braïtes [an epithet of doubtful import], come,
Bromios [God of the thunder-cry] come, and coming with thee bring,
Holy hours of thine own holy spring —
Evoë, Bakchos, hail, Paean [Healer] hail!⁴²

Also many of the titles refer to Dionysos in his character as the mystic savior: thus he is Soter, the Savior; Eleuthereus, the restorer to freedom; Lysios, the releaser; and Lyaios, the deliverer from care. In reference to his descent into Hades he is Rexichthon or the Earth-cleaver; as Thesmophoros he is the lawgiver, and as Teletarchos, the founder of the Mysteries; and as Theoinos, he is the God of the mystic drink which confers immortality. He is identified at times not only with his father Zeus but also with the first of the five cosmic rulers, Phanes Protogonos, the first-born, the macrocosmic germ of manifested life, as is shown by the following Orphic Fragment:

He who is called through the earth both Phanes and Dionysos

And King Eubouleus [the Wise Counsellor] and the widely seen Sparkler, Antauges [the Spiritual Sun].

40. Ibid., l, 2-4. 41. Ibid., liii, 3-12, 15-17. 42. Miss Harrison's Translation.

And other men of the earth by other names call him. First of all came he to light and then was he named Dionysos, Since he must wander⁴³ about through the boundless and blessed Olympos.⁴⁴

Finally some of the manifold epithets of Dionysos, as the principle of growth and vitality, have been thus excellently explained. Although in a few cases the exact wording of the paraphrase may be called into question, the explanation as a whole is decidedly enlightening:

He is the all-potent (Pantodynastes), permanent (Ambrotos), life-blood of the world (Akratophoros), and power of reproduction (Priapos): which, giving to all their share of being (Isodaites), appears (Phanes) blooming (Antheus) all around (Amphithales) in the majesty of the forest (Dendrites), in fruit (Eukarpos), in foliage (Katapogon), in the hum of the bee (Brisaios), in the flowing of the stream (Eurychaites), in motive power (Elilichthon), and generally, in the fulness of the earth beneath (Hyes-Phelon), which brings forth abundantly (Karpios) clad in its mantle of green (Ernisepeplos), ever varying in phase (Aiolomorphos), and infinite in its changes (Polymorphos): which, being of a mingled nature (Mise) is androgynous (Thelymorphos), comprehends both active and passive potentialities (Diphues), and shows their double action (Dimorphos) in the ever-renewing life-power of the vast material world.⁴⁵

Dionysos as Zagreus is lord of the Underworld, the chthonian and telluric deity, "Who as Amphithales, the Blooming-on-both-sides, bears sway alike in the Upper and Lower Worlds; as Isodaites, the Equaldivider, portions out life and death to all, and shares the wealth of nature amongst his subjects; and as Rexichthon, the Earth-cleaver, can penetrate to the depths of the Underworld, and rise again unwearied to Olympos."⁴⁶

43. Δινέιται, here associated etymologically with the word Dionysos.

45. Robert Brown, Jr.: The Great Dionysiak Myth, Longmans, Green and Co., 1878, II, p. 154.

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"AND duty, let me tell you, is for us, stronger than any friendship or even love; as without this abiding principle which is the indestructible cement that has held together for so many milleniums, the scattered custodians of nature's grand secrets — our Brotherhood, nay, our doctrine itself — would have crumbled long ago into unrecognisable atoms."

- Master K. H., in The Mahatma Letters to A. P. Sinnett, p. 351

^{44.} Orphic Frag. vii, apud Macrobium, Saturn., i, 18.

^{46.} Robert Brown, Jr.: The Great Dionysiak Myth, pp. 154-155.

A Messenger Long Misunderstood

P. A. MALPAS, M. A.

XII

In the January and April (1934) chapters the author tells the extraordinary story of the Cardinal de Rohan's entanglement in the dramatic 'Diamond Necklace Case.' Briefly, a rumor was current to the effect that the Queen (Marie Antoinette) desired a certain superb diamond necklace, but did not want to ask the King at that time for the money to purchase it. In order to regain the lost favor of the Queen, the Cardinal resolved to oblige her by purchasing the necklace himself, hoping then to offer it to the Queen on some understanding that she could reimburse him at a later date, when she could raise the money. The so-called 'Countess' de la Motte, an utterly unscrupulous adventuress, with her accomplices, made the innocent Cardinal their catspaw and fraudulently obtained the necklace, not hesitating to use the Queen's name and forged signature to deceive the Cardinal, as well as Böhmer the jeweler. Cagliostro tried, but in vain, to warn the Cardinal against the adventuress. Finally the robbery was discovered and the conspirators were arrested. Without a shadow of warrant, Cagliostro and the Cardinal were also implicated, and the stage was set for the famous 'Diamond Necklace Trial' whose consequences were so tremendous and so tragic for all concerned, and which unquestionably changed the course of - SUB-EDS.] European history.

The Case of the Diamond Necklace (continued)

THE one annual occasion when the Cardinal de Rohan had the right and the duty of saying mass before the King and Queen — Assumption Day, August 15th — had arrived. In full pontificals Rohan was waiting for their arrival, when a messenger summoned him to the King. Böhmer had penetrated to the King and told all! Marie-Antoinette was naturally furious; she insisted on the Cardinal's arrest, and the King weakly complied. Rohan was arrested in all the glory of his office and taken to the Bastille. He merely had time to write a note (using his hat for a table), and give it to a messenger, before he was taken into custody at the order of his old enemy and ambassadorial successor, the Baron de Breteuil, now Minister of Police. The messenger rode to the Cardinal's house at such a furious pace that his horse fell dead at the door. But Georgel received the note, and in compliance burnt 'the red portfolio' containing, it must be presumed, the 'blue-bordered notes from the Queen.'

Jeanne de la Motte, her husband, Count Cagliostro and his wife (accused by the de la Mottes), Nicole Leguay, and Villette, were also swept into Breteuil's net, and all were sent to the Bastille.

Those were the days of the infamous *lettre de cachet* and the Inquisition. In France, families of social prominence could save the family name in case of scandal by obtaining from the King himself an order to imprison, without reason given, any member of the nobility 'during the King's pleasure.' This might mean a lifelong incarceration, or a nameless death. The system grew in the end to a stage where the Minister of Police held a number of blank *lettres de cachet*, signed by the King, so that he could instantly consign any objectionable enemy or rival to the living death of the Bastille — truly an awful power, and one used no less than *one hundred and sixty-four thousand times* in two reigns.

Mme de la Motte, from the first moment of danger, had thrown the blame on Cagliostro for the whole of the affair, thereby endeavoring to shield herself, and also to vent her spite on the man to whom she attributed her lack of success. As Cagliostro had been an enigma to the police and their boasts that they would find out all about him in a few days had proven utterly vain — a deep wound to the prestige of Minister of Police Breteuil, who could not even find out where Cagliostro obtained his money — he was looked upon with not little suspicion. His origin was utterly unknown to them.

One can imagine, therefore, the delight with which Breteuil countersigned a certain sheet of paper in his possession, after adding to it just two names and the most terrible word in France — the Bastille:

Mons. le Marquis de Launay, je vous fais cette lettre pour vous dire de recevoir dans mon Château de la Bastille Le Comte de Cagliostro et de l'y retenir jusqu'à nouvel ordre de ma part, sur ce je prie Dieu qu'il vous aie, Mons. le Marquis de Launay, en sa sainte garde. Écrit à Versailles le 21 Août 1785. Louis.

LE B". DE BRETEUIL.

M. le Marquis de Launay, Governor of the Bastille, is commanded to receive the Count Cagliostro into the Bastille until further orders. That is all, save a ghastly and meaningless formula, invoking the holy guardianship of 'God' on the keeper to whom the *lettre de cachet* is addressed. One wonders if the mocking words 'God have you in his holy keeping, so I pray' did not echo in the dull ears of the King when he came to the guillotine, to which he took the first step when he signed this

awful document, even though he may not have known that it was to have the name of Cagliostro upon it.

So, on the 23rd of August of that fatal year, 1785, at seven o'clock in the morning, Master Chesnon, a commissaire of the Chatelet, with his constables broke into the apartment where Cagliostro was. One of the constables was the man who had been sent to Strasbourg to spy upon Cagliostro, but had come away with a mighty respect for him. No matter! Cupboards were overturned, drawers ransacked, the desk rifled. There was much cash therein, and it was transferred to the pockets of the 'agents of justice' without more ado. Other things there were of unknown value, some of them priceless and irreplaceable documents and drugs such as were not to be found in all Europe, save in that room.

As to Cagliostro — "Take him away," is the order. Cagliostro suspected the destination. They assured him that his wife would be left, as there was no accusation against her; she could look after the house! The constable, Des Brunières, who had seen him at Strasbourg, gripped him by the collar, and thus ignominiously, surrounded by four armed police-runners, the 'divine Cagliostro' was marched through the ungrateful streets of Paris to the Bastille.

The room at last gutted of all that mattered, the commissary Chesnon then took the Countess to the Bastille and lodged her, in a cell, where she languished and pined and suffered, fifteen feet away from her husband, but unknown to him. She might prove useful.

It is a miserable story of a dying régime — but they did not know it was dying, nor that they were themselves giving it a death-blow. Lies, traps, thefts, the 'third degree,' all the horrible paraphernalia of terrorism in Christian Paris of the eighteenth century were requisitioned in the name of 'justice.' Not one of that crew could even begin to suspect the intensified torture of such confinement to a man of the stamp of Cagliostro, nor, on the other hand, that his very sensitiveness was balanced by a power to live through such sufferings as would have killed any other man ten times over, a power which puzzled the Inquisition in Rome not a little, when it came their turn.

Today we may see the letters Cagliostro was encouraged to write to his wife while in the Bastille. She was only a few feet away from him, on the other side of the cell wall, but the police took his letters as though they were to go to her at their home. The officials scanned them lynxeyed for incriminating admissions, but without avail. Then they dic-

tated the reply, always with a view to entrapping him. He writes for linen, wine, his glasses — they cannot understand why he wants so much wine. He may have had a plan to use the bottles in some way, for it is doubtful that he used the contents at all. All these things are delivered, as though sent him by his wife.

As to the Countess Cagliostro, she was but a weak tool in their hands. Unable to write, since she had been brought up by a Roman father according to the custom of the day, she put her 'mark' to almost anything the police told her to sign. She was a tool in other ways also. Comments are written on the margin of his letters by the police, but they are always guarded and convey no information except that Cagliostro himself could hardly write better than a schoolboy and so (in their view) was utterly incapable of being the skilled forger which his enemies made him out to be — a story which was actually believed until late in **the** nineteenth century, solely on the evidence of his executioners. Another sidelight these letters throw on his character is his religious toleration and support of his wife's piety, for she was a Roman Catholic, and he never disturbed the only ideals she had — as, we may add, had been also the case with those of his patients who were Roman Catholics.

So the weary and miserable months passed into the New Year at last. On February 27th, 1786, Cagliostro was permitted to see his advocate, Thilorier. He was informed that his wife was in the Bastille and that he had been deliberately deceived all along. She was sick and in danger of her life; a petition was drawn up and forwarded by Thilorier; she was released on March 26th, 1786, and returned 'home!'

The slow processes of the law had by this time matured and the examinations commenced. Paris was filled with pamphlets setting forth the cases of the several accused. They had a tremendous sale, whether the lying filthy calumnies of de la Motte, the fervid appeals of Thilorier, or the claims and statements of the Cardinal. There was a mighty kettle of fish a-boiling in Paris; even the dullest minds began to realize that all this 'process of law' held, deep down, world-shaking questions. Personal issues of vast importance were also at stake. If the Queen, the Austrian daughter of Maria Theresa, lost the day, then Cagliostro, around whom it was felt that the real storm raged, would go free, and royal privilege would nevermore be able to override justice for personal whim or pique. If Cagliostro lost, it was a triumph for the old régime, and doubtless he would disappear for ever within the confines of the

Bastille, as so many others had done before him. Right and justice hardly entered the question. This Freemason, whose mission was a revival of spirituality in the Lodges, this 'divine healer' of the poor, who gave money as often as any other medicine, and never received a penny, this inoffensive stranger was suddenly forced by circumstances into the position of being the keystone in the arch of European liberty! And the people knew it, dimly perhaps, but they knew it!

Retaux de la Villette had been brought back and interrogated; but he was obstinate, and the police could get nothing out of him. The cold blast of the law only made him draw the coat of reticence the more tightly round him to shield his own chance of liberty. But now Cagliostro was permitted to question him. With the sunlight of the heart he appealed to the young man's better nature, and in a flood of melted human feeling the latter confessed. The parliamentary reporter was himself so touched that he reproached the young man as a monster if he was not moved by Cagliostro's appeal to him to tell the truth, for Cagliostro spoke to him as a brother, as a man of high religion and morality, as though in celestial discourse.

Mme de la Motte became more and more violent at the interrogation, and the more violent she became, the more she damaged her case by making admissions that she could not recall. Her statements amounted to a confession. It almost seemed that Cagliostro provoked her violence and loss of self-control to this end; exactly the opposite course to that which had succeeded with young de la Villette. Cagliostro knew character.

On May 30th, 1786, the public examination was held. Cagliostro, who in reality had absolutely nothing to do with the case, holds the center of the stage. His frank speech, as though he were the greatest orator of the day, passing from grave to gay, from the sublime to the ridiculous, quoting facts and yet more facts, speaking with an eloquence and ease such as no criminal conspirator could ever command, carried away the court and the public in a vast sea of applause. The Cardinal was really the accused, but he seemed to stand aside while Cagliostro fought for him, and won all along the line. The apparent triviality of the case covered in reality the scarce-hidden burden of the destinies of Europe for a century. This is no picturesque exaggeration or trick of rhetoric, but a sober fact; as much the fact as that a giant oak springs from so small a thing as an acorn. There is no guesswork, but clear as crystal rose the little spring in that court at that trial, which was to increase and

finally overwhelm France in the flood of the Revolution. But it was not in the mission of Cagliostro to tinge that flood with red. His mission was to purify it, and divert it into beneficent channels — if possible.

The great Case of the Diamond Necklace was on, but there is little need for us here to follow the intricacies of the trial. As regards Cagliostro, they are clearly indicated in his own Memoirs and Petitions. Jeanne de la Motte did all that was possible to confuse the issue — complication of plot was one of her strong cards in all her intrigues — but finally, and in accord with the brutality of the law of that age, she was condemned to branding by the executioner, to a whipping, naked, by the same hand, to imprisonment for life in the Salpetrière, and to be deprived of all her property. Her husband, de la Motte, was condemned to the galleys for life. Villette was banished. Rohan was acquitted. Nicole Leguay was put out of court, which was equivalent to saying that there was not sufficient evidence to convict her.

Cagliostro was dismissed from every charge. The memorials printed and published by his enemies and those of the Cardinal were ordered to be destroyed. The verdict was to be placarded publicly. The Countess Cagliostro simply did not enter into the case, and one wonders why she was ever put into the Bastille. It was a clear case of the misuse of the *lettre de cachet*. Whether condemned to the Bastille for a whim of the Queen, or by the spite of Breteuil, or simply to annoy Cagliostro, or from utter callous carelessness, she was offered no redress and had no appeal. During the first few days of her freedom it became the fashion for society to call upon her, which it did in thousands. Every caller was a vote against the Queen and the Monarchy, though neither side was yet fully aware of the fact.

As for Mme de la Motte, who later escaped to England, her fate was worse than that of imprisonment. One day the sight of certain constables, who sought her on a matter of debt, so terrified her that she leapt into the street, just escaping with life and a horribly mangled body. She suffered for two months, until August 23, 1791, as though the Higher Law which so obviously dealt with Cagliostro's every oppressor, chose the anniversary of his arrest to permit her to desert that tortured frame. Her death wrote on the walls of Eternity the very date on which she once had seemed to triumph over this ill-starred Messenger.

On the 'glorious first of June,' 1786, the doors of the Bastille opened before Cagliostro. He had suffered nine months of ghastly martyrdom

— for nothing; and now the authorities were so afraid of the power of a public welcome, that the hour for his release was fixed at half-past eleven at night. No matter; a crowd of eight or ten thousand people surrounded his house, shouting, cheering, beating drums, waving torches. The door was forced open, not this time by the agents of a corrupt 'justice,' but by the People of France, acclaiming the spirit of liberty triumphant. The yard, the stairs, the rooms, were thronged with enthusiastic admirers. Cagliostro was carried to the arms of his wife by the crowd; overcome by the vast rush of friendly feeling, he fainted and fell to the floor. His wife was alarmed and herself overcome for a few moments; then the two regained consciousness and shared the joy of reunion with their friends.

In the morning the house was again surrounded with a vast crowd, as was the residence of the Cardinal. The Court could not fail to observe the portents. Baron de Breuteuil, Minister of Police, hated Cagliostro with an ungovernable fury. Naturally, for was not Cagliostro innocent? And is there any hate in the whole world so bitter as that which we harbor against those whom we have wronged? The Queen was wounded to the quick, and even the King felt that the throne was not so steady as it might be, although none really visualized anything like the Revolution which a few years was to bring about. That amazing prediction of the gentle Cazotte (according to Lord Lytton but the mouthpiece of Saint-Germain) in which he detailed the end of a number of the highest of the French nobility, the Queen and King not excepted, was still but a vision, not to be spoken of too openly. Yet the Queen knew of it. But they were all so vastly intelligent that to tell them the exact truth was the surest means of deceiving them!

So, within twelve hours of the liberation of Cagliostro as an innocent man, the constable Des Brunières, who had spied upon him in Strasbourg, who had hauled him through the streets of Paris to the Bastille, again appeared, this time with an order commanding him to quit Paris within twenty-four hours and France within three weeks, never more to re-enter the kingdom under any pretext whatsoever.

Cagliostro left for Passy at once. His wife collected the little that remained of their property and followed him. Friends gathered round, and enemies at Versailles raged the more violently at these tokens of loyalty. With such men as Cagliostro there are either friends or enemies; none concerned can be indifferent while a spark of the inner life

remains. There was fear of criminal attack, and friends guarded his apartment day and night with drawn swords. There was also fear of a rising of the people in his favor. So Cagliostro remained in his rooms rather than provoke any demonstration against the authorities in power. Disciples and friends hurried from Lyons and other places to see their friend and master while he yet remained on French soil. On the advice of his advocate, Thilorier, action for damages was taken against de Launay and Chesnon to recover something of the value of the property and cash stolen by them and their emissaries. Cagliostro demanded fifty thousand livres damages; at the same time he insisted that this should not be paid to him, but should be devoted to alleviating the death-in-life of the prisoners in the Bastille. Always the poor and oppressed came uppermost in the thoughts of that great man, for he was that, a very great man, even though one or two errors in judgment which would have been considered trivial in another found him out, and brought down upon his head the crushing weight of bitter misfortunes.

The defendant fell back upon a technical subterfuge which was invoked to deny Cagliostro justice: the *lettre de cachet* being outside and above the law, there was no claim that he could make. It was well for Cagliostro that he sought no revenge; in this he stood like a rock for the rights of a man against legal and privileged oppression. As with the army of scoundrels who did him irreparable harm in London, he left his enemies to the Higher Law. De Launay, for instance, was the very first victim of the Revolution when it came, suffering a horrible death at the taking of the Bastille.

Time was short. Cagliostro arrived at Boulogne on June 15, 1786, and sailed for England the next day at five o'clock in the afternoon.

Some day a great picture will be painted by an inspired artist. It will show Cagliostro leaving the shores of France on that day in June. Thousands of people of every class, and from places near and distant, knelt on the sands imploring a last blessing from one who to them was far more than an earthly father. Sobbing, heartbroken men and women, among them many of his children in Masonry, paid this last tribute to their Grand Master on French soil. That one hour — Cagliostro said it — repaid him for the long agony of those nine months in the tomb of the cruel Bastille. He was on that day 'the divine Cagliostro' indeed.

In Cagliostro's pocket was a letter of introduction to friends in England, given by one of his trusted disciples, and one or two others accom-

panied him to see that he should be safely received at their hands. That disciple, de Vismes, one of his highest officers in Masonry, turned out to be another Judas betraying his Master into the hands of his enemies — the letter was designed to insure that he should fall into their clutches. The Good Physician had not the right to heal himself; he lived for others. Whether he knew it in detail or not, he was bound to silence by an iron law, and followed by the loving voices of the thousands on the shore, he took his way to Albion, to face betrayal by his own disciple.

CAGLIOSTRO'S 'LETTER TO THE FRENCH PEOPLE' CONTAINING HIS PROPHECY ABOUT THE FALL OF THE BASTILLE

THE story of Count Cagliostro reads like a tale of the Arabian Nights, and the more it is studied, the more amazing it appears.

The light of exact research only tends to increase its mystery and its misery, its wonder and its splendor, its humanity and its divinity. The word is not too strong, for the people who knew him really regarded him as the 'divine Cagliostro.' People of birth and education, intelligence and wealth, of intuition combined with any and every quality, united in attributing to him godlike capacities; and, as a natural consequence, others were bitter against him, especially those whose weaknesses could not endure the searchlight of the splendor that shone about and around him.

All these had their reasons. Some had seen his marvels of healing and his mastery of the secrets of Art and Nature; some had seen his daily crucifixion by those who were not, like himself, the friend of mankind; some had known him, in private, as a genuine prophet of things to come, and knew that the divine fire of prophecy burnt on the altar of his heart. Some had received from his hand the inestimable boon of restored health, a blessing bestowed without price. To others he had opened doors into treasuries of mystic truth. He was human, yet he was also, to many, many thousands, 'divine.'

Many as were the prophecies uttered privately by Cagliostro to his followers, one or two of remarkable accuracy became public and widely known. His enemies made much of his popular reputation as a prophet, and at the trial, when he was accused, with his friend the Cardinal, of 'prophesying' falsely, he answered wittily enough that he could not be accused of always failing in his previsions, since he had warned the Cardinal against the 'Countess de la Motte,' saying that she was deceiving him, and that if the Cardinal had accepted his advice, it would have saved him all his trouble!

It was after the terrible suffering he endured in the Bastille and during the trial, and immediately after the additional shock of being brutally and unjustly expelled from France, that the persecuted Cagliostro wrote his magnificent 'Letter to the French People.' It may seem mild enough to us, but it produced a tremendous sensation, and his friends feared that he had said too much. But his standards were higher than theirs, and he was never lacking in courage. His alleged 'mistake' in publishing it may have been carefully calculated, although, on the other hand, the publication *may* have been due to treachery, and designed to involve him still more with the police. The Baron de Breteuil hated him with a virulent hatred, and as the head of the French police, could, and afterwards did, do him irreparable injury.

This Letter contains the famous prophecy about the fall of the Bastille and the end of the lettres de cachet, and, gently as the suggestion is made, its purport is clear. Probably it was a veiled rendering of a much more detailed prophecy known privately to his intimates. After the event, today, it seems remarkable enough, but made public three years before the event, in the light of the unrest then becoming apparent throughout France, it was startling.

The famous *Letter* is well worth reproducing in full, for it is a superb example of the kindliness, the humanity, the balanced judgment, and the self-forgetfulness of the true Messenger, for he had learned to forgive, and to seek no revenge on his enemies! It is an eloquent appeal for brotherhood and patient effort as the only true way to bring about lasting reform.

TRANSLATION OF A LETTER WRITTEN BY M. LE COMTE DE CAGLIOSTRO TO M.-----Found in the Ruins of the Bastille.

London, June 20, 1786.

I write to you from London, my dear —. My health is good, and also that of my wife. What touching scenes! It seemed that my friends had preceded me everywhere. Boulogne was the climax. All those good people on the shore, their arms outstretched toward my boat, calling me, shouting, heaping benedictions upon me, and beseeching my blessing in return! . . . What a memory! So dear and yet so cruel a recollection!

So they have driven me from France! They have deceived the King! Kings are much to be pitied for having such ministers. I hear that people are speaking of the Baron de Breteuil, my persecutor. What have I done to that man? Of

what does he accuse me? Of having been loved by the Cardinal? Of loving him in my turn? Of not having deserted him? Of having good friends wherever I have been? Of searching for Truth, of uttering it, of defending it, when God has given me his command to do so by offering the opportunity? Of succoring, of aiding, of consoling suffering humanity by my alms, by my medicines, by my advice? There you have all my crimes. Has he made another out of my petition for leniency? That was returned to me—strange error! But hardly had I presented that request when, seeing my portrait-bust at the Cardinal's house, he said in anger, muttering, "One sees that face everywhere; it is necessary that this should come to an end! It shall end!"

They say my courage has irritated him; he cannot stomach the fact that a man in irons, a foreigner under the bolts of the Bastille and in his power, should have raised his voice against him — a minister worthy of that horrible prison — in order to make him, his principals, his agents, and his creatures known to the French tribunals, to the nation, to the King, to all Europe. I acknowledge that my conduct must have astonished him, but in any case I adopted only the tone which was my right. I am quite sure that this man, if himself in the Bastille, would do the same.

As for the rest, my friend, clear up a doubt for me. The King has driven me from his kingdom, but he has not heard my defense. Is it thus that *lettres de cachet*, private royal warrants, are used? If that be so, I am sorry for your fellow citizens; above all while the Baron de Breteuil has such a dangerous Department. What, my friend! Are your persons, your goods, at the mercy of that one man? Can he deceive the King with impunity? Can he, unhindered, unopposed, on the strength of libelous misrepresentations, issue orders and have them executed by men like himself? Or may he even give himself the terrible pleasure of personally executing rigorous decrees which plunge an innocent man into a dungeon and deliver his house up to pillage? I venture to say that this deplorable abuse deserves the attention of the King. And is the common sense of the French, which I like so much, different from that of all other men?

Let us forget my own cause, and speak in general terms. When the King signs a letter of exile or of imprisonment, he has judged the unfortunate person upon whom his all-powerful rigor is about to fall. But upon what is his judgment based? On the report of his minister. And this minister, upon what has he based his opinion? Upon unknown complaints, upon dark and treacherous reports which have never been made public; sometimes upon mere rumors, libelous scandals sown by hate and reaped by jealousy. The victim is struck without knowing whence the blow comes; he is fortunate if his enemy is not the minister who has immolated him!

I ask him, Is this a real judgment? And if your *lettres de cachet* are not private judgments, what are they? I believe that these considerations, if put before the King, would touch him. What would happen if he entered into the details of all the evils which his severity occasions? Do all the prisons of the State resemble the Bastille? You have no idea of the horrors of that one; of the cynical impudence, the odious lying, the false pity, the bitter irony, the **un**-

bridled cruelty, the injustice and death, that reign there. A barbarous silence is the least of the crimes committed there. I was for six months fifteen feet from my wife, and I did not know it. Others have been buried there for thirty years, reputed dead, unfortunate in not being so; having like the damned souls of Milton, only enough light in their abyss for them to perceive the impenetrable thickness of the gloom that enfolds them. They would be alone in the Universe if the Eternal did not exist, that good and truly almighty God who will one day, in spite of men, do them justice. Yes, my friends, I said it when I was a captive, and now that I am free I repeat it: there is no crime which could not be expiated by six months in the Bastille. It is said that torturers and executioners are not lacking there; I have no difficulty in believing that.

Someone asked me if I should return to France if the embargo which keeps me away were rescinded. Assuredly, I replied, provided that the Bastille become a public promenade. God will it so! You have all that is necessary to be happy, you Frenchmen; fertile soil, mild climate, good hearts, charming gayety, genius and grace in everything; you are fit for everything, without equals in the art of pleasing, without a superior in the other arts. There is only lacking to you, my good friends, one little point. That is — to be sure of sleeping in your beds when you are innocent! "But what about honor? What about [the rights of] families? Those *lettres de cachet* are necessary evils. . . ." How simple you are! You are lulled to sleep with those tales. Well-informed people have told me that the petition of a family is often less effective in obtaining a *lettre de cachet* than the hatred of an underling or the reputation of an unfaithful wife. Honor! Families! You think a whole family is dishonored by the punishment of one of its members. What a pitiful idea! My new hosts think a little differently; change your minds then, and deserve your liberty through reason!

Your Parliaments would find it worthy of them to work toward this happy revolution; it is difficult only for feeble souls. Let them be prepared — there you have the whole secret - but don't let them be too hasty. They have on their side the obvious interests of the people, of the King, of his House. Let them also have Time - Time, the Prime Minister of Truth; Time by which the roots of good as well as of ill, spread and gain a hold. Let them have courage, patience, the strength of the lion, the prudence of the elephant, the simplicity of the dove, and this Revolution which is so necessary will be peaceful-a condition without which one must not think of it. Thus you will owe to your magistrates a happiness which no nation has known, that of recovering your liberty without striking a blow, of receiving it from the hand of your Kings. Yes, my friend, I declare that there will reign over you a Prince who will glory in the abolition of the *lettres de cachet*, in the convocation of your States-General, and above all, in the re-establishment of the true religion. He will feel, this Prince beloved of heaven, that the abuse of power is destructive of power itself in the long run. He will not content himself with being the first of his ministers; he will wish to become the first of the French. Happy the King who will bear this memorable edict! Happy the Chancellor who shall sign it! Happy the Parliament which shall carry it out! What am I saying,

my friend? The times have perhaps already arrived. At least it is certain that your sovereign is the right one for this great work. I know that if he would only listen to his heart he would work for it: his severity as regards myself does not blind me to his virtues.

Adieu, my friend. What do they say of the *Mémoire*? The last time that Thilorier read it at Saint-Denis gave me much pleasure: did he read of the incidents at Boulogne in time to make an article of them? Is the *Mémoire* public? It ought to be. Good night! Speak of us to all our friends; tell them that we shall be present everywhere; ask d'Epremesnil if he has forgotten me — I have no news of him. Adieu, adieu, my good friend, my good and true friends! It is to you that I address myself. Think of us; this letter is for you all in common; we love you with all our heart.*

From the Printing-house of D. de Lormel. Rue du Foin Saint-Jacques.

A modern writer who has dealt with the Diamond Necklace Trial, M. Franz Funck-Brentano, despite the handicap of some historical inaccuracies, is worth quoting at this point. In his *Cagliostro and Company*, translated by George Maidment, he says of the letter just quoted:

These lines, dated 1786, are really astonishing. People speak sometimes of the predictions of Voltaire and Rousseau. "We are approaching a condition of crisis and the age of Revolutions," wrote Rousseau; "all that I see is sowing the seeds of a revolution which will inevitably come," wrote Voltaire — stray utterances culled from a mass of writings filling fifty or sixty volumes. . .

Voltaire and Rousseau were men of letters who wrote admirably and expounded very interesting theories; but what a vivid, concrete, precise intellect Cagliostro must have had, along with an intuitive perception of realities, to say to the French in 1786: "Within a very short time, your States-General will be convoked, your Bastille will become a public promenade, and your *letters de cachet* will be abolished."

The writer notes the tremendous effect of this letter upon Breteuil. He shows the extraordinary concessions the guilty Minister of Police had to make to public opinion, and the unheard-of reforms at last permitted to take place, for "Cagliostro dealt him a blow, in regard to public opinion, from which he never recovered . . . and the news that he had returned to power was the signal for an insurrection."

There is something — a power, a force, an undercurrent — about the simplest words of such a man as Cagliostro that seems to bring forth results tenfold as momentous as the words, spoken or written, of others. When he was cruelly persecuted in England by overt enemies, and even the magistrates and the police showed themselves to be utterly corrupt

^{*}This letter was known at the time, and the printer has an original copy.

— always excepting Lord Mansfield, who was far too great for such meanness — he bore it without retaliation, leaving his wrongs to be righted and his name to be vindicated by that Law of Divine Justice in which he trusted so implicitly. Nor was his trust ill-founded, for within a very few years all of his persecutors had either miserably perished or were in positions of such degradation and suffering that death would have been preferable. Again in England, when attacked by the infamous Morande — a once beloved disciple who turned Judas — he retorted with no more than a mild, though wittily written, newspaper joke, a wager — but the result was to turn the tables against his persecutor so definitely that the latter never recovered from the effect of it. And yet Morande, by means of blackmail and similar tactics, had been holding the highest society in both France and England in terror, not of their lives but of their reputations, and with such complete impunity that the French police, in selfdefense, had to make him one of their agents!

(To be continued)

WHEN THE TEACHER COMES

A Mystic Vision of Years Ago

CONSTANCE ALLEN

SUNSET on the Himâlayas! Against the massive side of the mountain-range nestles, like a swallow's nest, the humble cottage belonging to one of the Masters of Wisdom. One golden ray drifts through the surrounding forest of the tall fragrant pines as if to hallow this abiding place with additional blessing.

Presently figures are to be seen appearing from various paths through the now dusky twilight of the woods. The Brothers are directing their steps to this cottage. Their faces reveal that something of unusual interest is pending. Together with some chelas they finally assemble in the living-room of their Brother who has not yet appeared.

The room is spacious, running the entire length of the house. Windows surround its three sides. A tumultuous mountain stream flows past through the valley below, amid banks of vivid foliage and masses of rhododendrons. Winding paths lose themselves in the dim depths beyond.

The assembled Brothers converse in cheerful, but subdued tones. One

young Brother, the youngest, stands by the west window as though earnestly watching for some one. His lips move as if in prayer, yet one might almost hear the whispered words, "If only I might be the one chosen." Then suddenly he exclaims aloud, "He comes."

Through the deepening dusk a white radiance is first seen, then the figure of the Master appears. The final gleam of the setting sun pierces the shadow of the woods, and for an instant rests like a halo over his head. He pauses a moment, then with uplifted arms he pronounces his solemn sunset-blessing to the world, "May Love Divine illumine, and Peace Divine abide, to everlasting—ever—lasting," to which the Brothers chant the same in an impressive response.

The Master then enters the cottage. Darkness settles over the narrow valley. At a gesture from him, the Brothers silently assemble on the veranda, facing the valley and the world beyond.

A mystical scene of the world and its inhabitants appears before them, represented by lights — a scene familiarly described as standing on a hill at night, overlooking the electric lights of the surrounding city! Lights of every degree of color and hue are to be seen. These suggest the group-effect of the thought-vibrations created by man. Some portions of the lights are sadly blurred, and dimmed by dark, murky rcds and browns; others show spot-lights of occasional pink, blue, yellow, luminous greens, and at rare intervals a few points of pure white are seen.

The Master turns to the other Brothers, "Behold our field for service. All human creatures love, and hate, and suffer, and struggle, and hope but how few understand!"

He turns again towards the lights. His eyes sweep thoughtfully over the scene before him, then with impressive solemnity he again speaks: "May the universal Law of Divine Love guide the one who goes forth from our midst in his service to mankind. Where shall his ministrations begin?"

Almost simultaneously the answer comes. A shaft of intense white light streams over the entire picture of the world, and finally rests over one particularly active spot. The Master's voice rings out with rejoicing, "The United States of America, our offspring from the past, is now to live again!"

The young Brother who is standing close beside the Master now begins earnestly to entreat the Master and assembled Brothers that he be the one chosen to go forth on this mission of service. But he is so young,

they tell him; that in thus forcing experiences in undertaking this mission it is premature, and consequently his trials will be more difficult to master.

"Some one is calling who needs me," the young Brother insists.

"I know," the Master replies. "Because this one needs you we consent to the departure."

The final blessing is given, the Brothers chant, "Divine Will is ever a blessing," and with the radiance of the final benediction enveloping him, the young Brother goes forth on His mission of mercy and love to struggling humanity.