THE THEOSOPHICAL PATH

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As here on earth, whatever has been acquired by exertion, perishes, so perishes whatever is acquired for the next world by sacrifices and other good actions performed on earth. Those who depart from hence without having discovered the Self and those true desires, for them there is no freedom in all the worlds. But those who depart from hence, after having discovered the Self and those true desires, for them there is freedom in all the worlds.

— Снна̂ndogyopanishad; viii, 2, 1, 6. Trans. by Max Müller

THE DOCTRINE OF KARMA: by H. Travers, M. A.

KARMA: A GREAT GENERALIZATION

NE of the most familiar of the Theosophical teachings is that of Karma. This doctrine may be said to constitute a great generalization comparable to those scientific generalizations with which the history of nineteenth-century thought has made us familiar, though

more far-reaching and important than these. The scientific generalizations have established the principle of cause and effect, of order and proportion, throughout those realms of nature which come under the observation of natural science; and further, by reasoning from the results attained in the department of natural science, similar generalizations have been formulated for more abstract realms, such as sociology and ethics. Among the former we should mention first Newton's great principle of gravitation, and next the principle variously known as that of the conservation of energy and the correlation of forces. Evolution, as applied to biology, is another great generalization; and the same principle was applied later by Spencer and others to the history of human mental and moral development. In fact, generalization has become a fixed habit with us.

Now the doctrine of Karma is the latest and greatest of these generalizations with which we have become familiar; though it is late only in the sense that its introduction to Western thought has been recent. It is a very ancient Eastern tenet, as may be seen by a study of oriental religious and philosophical literature.

DEFINITION

Karma has been defined as the law of ethical causation, the principle of cause and effect as applied to all experiences, not only physical, but mental, moral and spiritual as well. It establishes the principle that law and order and unerring justice prevail throughout the universe, just as the above-mentioned scientific generalizations establish the same principle as regards physical nature. Its great recommendation to our speculative needs consists in its solution of the vexed problem of how to reconcile the circumstances of life with our innate ideas of omnipotent justice and rectitude; a problem which has been the fruitful theme of so many of the world's best thinkers, whether religious, scientific, poetic, literary, or what not. It removes doubt and pessimism and restores our confidence in the divine ordering of things.

The law of cause and effect is universal; but, as is only to be expected, we cannot, in the present state of our knowledge, always trace out its operation. In those numerous cases where we can not do so, we are accustomed to explain our fate either as a divine decree or as merely casual; but neither of these explanations is more than a temporary or provisional expedient resorted to in default, and perhaps in expectation, of fuller subsequent knowledge. Science, by increasing our knowledge, has transferred not a few classes of events from the category of chance or providence to that of ascertained law; as, for instance, those diseases which, formerly believed to be divine visitations or inevitable fate, are now assigned to their rightful causes in unsanitary living, infection, etc. But still a majority of events cannot yet be traced to their causes, and hence are still called "casual." We do not, for instance, see why a man should on a particular day fall under a street-car, or why another man should suddenly make a rich strike. Yet, unless we believe that there is chaos in the universe, we must believe that even such "accidents" as these are not accidents at all but logical effects of some cause, and the orderly sequence of some perfectly natural and regular chain of causation. The only difficulty arises from our ignorance of, or failure to discern, the connecting links in the chain. In accordance with the doctrine of Karma, the apparently fortuitous events of our life would be called our "Karma," and Karma is often spoken of as good or bad according to its nature. It is evident that the study of these hidden relations between cause and effect, or between different events in a chain, promises a fertile field of discovery, well worth while following up.

REINCARNATION

The doctrine of Reincarnation has to be mentioned here, because it is a fact that many of the experiences which we undergo are not due to anything that we have done in this life. People are born with a character and a destiny, which they have acquired in previous lives. and hence a large part of their Karma has been derived from former experiences. For want of a knowledge of the doctrine of Reincarnation many deep thinkers have been sorely puzzled to reconcile their innate sense of justice and law with the observed facts of life. It is not proposed to say much about the doctrine of Reincarnation here. but only what is necessary in connection with Karma. A single earth-life is only a section of a man's career; and consequently, if such a single life is considered alone, it does not present a complete view of the causes and effects, and the laws of universal justice do not seem to be fulfilled. We are driven to take refuge in the hope that matters will be adjusted in a future life or heaven; or else we leave the problem unsolved. But when we premise that a single lifetime is only a sundered fragment of an entire career, we can understand that a complete view might show the full sequence of cause and effect, of merit and demerit, and accommodate the claims of the most exacting justice. When a man enters this life at birth, he is not at the beginning of his career but in the middle; and consequently he will experience in this life the sequel of many things begun in a previous life, and his present circumstances will be the outcome of his past desires and conduct. In like manner, when he dies, he leaves many things unfinished, and many deeds whose consequences he has not yet incurred. It is necessary, therefore, to bear in mind the doctrine of Reincarnation in order to understand that of Karma.

THE MECHANISM OF KARMA

The question arises, "How is the Karma transmitted from one incarnation to another across the gap of death?" But we do not yet know how it is transmitted within the limits of a single life, so it is not surprising that the larger question presents difficulties. In some cases, it is true, we can point to a material mechanism, such as the brain, as a possible storchouse of energy, receiving impressions and giving out forces correspondingly. If a man drinks when he is young, we say that he wears out his tissues and therefore suffers pain and disability in his old age. In this case of the working of Karma we can point to a physical mechanism and we are not so puzzled. Or if

a man throws a stone into the air, it falls back upon him; and in this case we can point to the law of gravitation as an agent of Karma. The general principle involved in these and all other cases is that actions of any kind disturb the equilibrium of nature, and the attempt of nature to restore that equilibrium results in a reaction. Hence every act that we perform is really only half an act, and the other half — the reaction — is required to make the matter complete. Sometimes, as in the case of the stone thrown up, the reaction takes place speedily; at other times the interval may be longer, as in the case of the drunkard and his crop of senile wild oats. Again, the interval between the cause and its effect may extend over the gap of death and rebirth. The law of Karma states that every act performed with desire sets up a disturbance in the cosmic equilibrium and thus breeds a consequence. "The moral effect of an act committed for the attainment of something which gratifies a personal desire," says H. P. Blavatsky in defining Karma in the Glossary to The Key to Theosophy. Further in the same place she says:

Karma neither punishes nor rewards; it is simply the *one universal* law which guides unerringly and, so to say, blindly, all other laws productive of certain effects along the grooves of their respective causations. . . . There remains naught after each personality but the causes produced by it. . . . Such causes, unless compensated with adequate effects during the life of the person who produced them, will follow the reincarnated Ego and reach it in its subsequent incarnations until a full harmony between effects and causes is fully re-established.

Further, as regards this question of the transmission of Karma from one life to another, the student should read what is said in *The Key to Theosophy* about the *skandhas*. These are the attributes of the late personality, which await the immortal Ego on its return to incarnation, remaining as germs, hanging in the atmosphere of the terrestrial plane, ready to come to life, and to attach themselves to the new personality of the Ego when it reincarnates.

KARMA AND HEREDITY

The above quotation suggests the question of heredity. What connection is there between Karma and heredity? The answer is that the doctrine of Karma completes and explains the doctrine of heredity. Without the explanation afforded by Karma the laws of heredity remain obscure. To illustrate by an example: supposing a man is born with a weak, unbalanced, over-sensitive constitution. The scientific inquirer traces this condition to the man's parentage or ancestry,

which we will suppose to have been addicted to drink. The explanation is correct — so far as it goes, but it does not go far enough. Our notions of physical causation are satisfied, but not our sense of ethical causation; the facts may be logical in a material sense, but moral justice is not satisfied. To a believer in Reincarnation the further question arises, Why was the man born into such a body?

To take another illustration: if a man has been found dead, it is not enough for the coroner to say that he has been killed by a pistol; justice demands that we find out who shot the pistol and why. If a man is born with the consequences of alcoholic excess committed in previous generations, we desire to know why, and on what principles of equity, he has incurred that grim fate. He is suffering for faults which he did not commit and could not prevent; so we must say, if we have no further explanation than ordinary heredity. It is the decree of Providence, says the devout man; but many aspire to understand better the workings of Providence, who, they think, works through natural laws. To these doubts and queries Theosophy answers by enunciating a higher law of heredity — that of spiritual heredity — which points to man's spiritual ancestors. Those spiritual ancestors are his own previous personalities, his own past incarnations. The ill experiences which he is now undergoing are logical consequences of his own past mistakes; and it is for this reason that he was born into a body diseased by similar excesses. This was the kind of body to which, by the unerring justice of Karmic heredity, he was entitled. It was the kind of body which he needed in order to complete the lesson in experience which he had begun but left unfinished. Thus the laws of heredity cannot be understood unless we take into account Karma.

Without Karma we cannot account, on principles of ethical justice, for the fact that people are born with very unequal lots. This of course has been a great stumbling-block for all believers in divine equity. Under the law of Karma it receives its explanation; everyone is dealt with fairly, for he merely reaps the seeds which he has sown.

OBJECTIONS TO KARMA

It is not desirable to spend time over that class of objections which are due merely to an insufficient acquaintance with the subject; such objections rise readily to the mind of the inquirer, who, if he is wise, reserves them until further study reveals the answers. Nor should time be wasted on objections which, though alleged against the doc-

trine of Karma, are in reality but cavilings against the facts of life. Theosophists did not make the facts of life; they only offer an explanation of them, for which they are entitled to credit. Sometimes it will be said that, since everyone must suffer the consequences of his deeds, it is of no use trying to assist anyone. The fallacy here is almost too obvious to need indicating. If you catch a man who is falling, you may save his life, but you do not interfere with the law of gravitation; that can take care of itself. Similarly, it is impossible for you to thwart the law of Karma, whether you help a man or not; but, by not helping him, you can make bad Karma for yourself. Again, it may be his Karma that you should help him.

A person who injures others will have to suffer correspondingly himself sooner or later; not to satisfy any idea of vengeance or punishment, but (aside from the fact that the consequence is inevitable) in order that he may learn the lesson of sympathy. The severest penalty we incur for our misdeeds is remorse; which, when truly felt, arouses the resolve to make amends by future deeds.

MAN CAN RISE ABOVE KARMA

It will be perceived that the above remarks presuppose that man has a power which is independent of Karma; otherwise he would be involved in an inextricable web of causes and effects. The dual nature of man has to be assumed as a basis of philosophy; he is a noumenon within a phenomenon. Man's ability to stand outside of himself and view himself as an object, implies duality. The word Karma, as applied to human destiny, is usually intended to denote the causes and effects which determine the destiny of the lower principles of man, while the immortal Self is regarded as standing outside this Karmic chain. If Karma is regarded as a universal law, then even the immortal Self would seem to be subject to it in this larger sense. But this does not affect the point at issue, which is that man has within him a power independent of what, for all significant purposes, is understood as Karma. His will, even if conditioned by eternal laws of right and wrong, is free as regards the attractions of his personal nature. It is free in every significant sense of the word freedom. The Buddhist and other ancient teachings point the way by which the devotee escapes the chain of Karma. We have already seen, in the quoted passage, that Karma is engendered by acts performed with desire; and the prescription to the disciple is to perform all his acts from duty and without any personal desire to reap consequences.

It is a great consolation to believe that the problems of life are not insoluble but will yield by degrees to further study and experience; and an acceptance of the principle of Karma is a great start towards clucidation of these riddles. Confirmation is to be expected in the course of one's study of one's own nature and observation of the people around one.

What applies to individuals applies also to groups, for example to races; and the expression "racial Karma" will be met with in writings on Theosophy. Here again we have but an amplification of principles whose working we can trace among familiar facts. So long as a man is one of a family, and one of a community, or of a nation, his experiences cannot be purely personal, but he will share in the lot, both weal and woe, of those bodies. Thus he is involved in the Karma of his nation and in that of his race. As a thesis for study we here suggest the question of the relation between individual and collective Karma; whether the collective Karma is merely the aggregate of the individual Karmas, or whether it is something more. This question is evidently connected with the question whether a race is merely the sum of its individuals, or something more.

THE NEED FOR A BELIEF IN LAW

That there is great need in the world today of an understanding of Karma, can hardly be gainsaid. It affords precisely the thing for which people are now so anxiously looking — that is, a rational explanation of the facts of life, and an adequate incentive to right conduct. This doctrine, together with that of Reincarnation and that of the dual nature of man (which is implied in both), sets free our thoughts and our aspirations from the narrow purview included in a single earth-life, and bids us view our life as part of the far larger life of the immortal Man. No man can be too old to make a new start; because the old age of the body is nothing but a recurring phase in the life of the Soul. And is it not one of the facts of life that people who are in expectation of death do nevertheless behave as if they were going to live on? Their intuition is better than their beliefs. The life that is within them is eternal; it is only their notions that are perishable. It would make an incalculable difference to the moral status of society if children were brought up in the knowledge of Karma and Reincarnation; a genius would be required to portray the effects which such a condition would produce on humanity. Moreover these teachings would not then remain mere beliefs or formulas; for, having been inculcated in the tender years of youth, they would so fully demonstrate their truth, by means of their power to solve all perplexities, that they would seem quite natural and obvious.

Is it too much to say that the present troubles of the world are due to want of faith in eternal Law? Surely not; for people have been trusting to all kinds of false gods; and now that these have failed, people are wondering to what they shall turn. As it is not possible for anyone in his senses to help believing that there is Law in the universe, the only trouble is where to look for that Law.

That higher law must be inherent in the higher nature of man, just as the inferior laws which rule in his life are inherent in his lower nature. Theorists and experimental psychologists are fond of finding biological and instinctual laws and exploring the mysterious depths of what they call the "subconsciousness." But these researches concern the lower nature of man alone, or that nature which makes him self-seeking and passional. Actually there are higher motives which continually intervene in human life and cannot be referred to selfinterest. And these inhere in the higher nature of man. As psychologists use the word "subconscious," we may use that of "superconscious" to denote regions of consciousness that are above and not below the ordinary level. The impulses from this superconscious region come to us vaguely and are interpreted by our reason as the voice of conscience. Conscience is our awareness of the existence of a law higher than the instinctual and self-seeking laws that rule the animal nature of man.

The life of individual men, and also that of nations and races, must be directed by wisdom and purpose — the purpose of the Soul, which is free from the illusions of the mind and is not thwarted by passion. The sum-total of these great purposes makes up Karma — the higher law which governs the destinies of men throughout incarnations, and sets aside all mere personal schemes and purposes.

The reason why we understand so little about Karma is of course that we have not entertained the idea and consequently have had no opportunity to gain experience in verifying its operation. But as soon as we accept the idea, we begin to accumulate facts of observation which tend ever more and more to confirm it; and the effect is still greater when the principle is taught in the early years of life. Wherefore it is ardently to be desired that the law of Karma should become the subject of serious study in the immediate future.

SYMBOLISM: by R. Machell



OW is it possible to avoid the conclusion that symbolism is essential to art, when we find all creation characterized by symbolism? For a symbol is but the outer form which is produced by the interplay of invisible forces in conflict with the limitations of matter, or inertia.

All form is produced in this way, and so may be said to be the natural expression of inherent force balanced by the inertia of matter, and this form is a symbol of that which produced it. Thus all nature is symbology: and symbolism is natural; it is indeed unavoidable. But beyond this kind of inevitable symbolism there is a form of symbolism in art that is distinguished from other forms by the deliberate use of analogy in preference to the more direct method of actual representation.

The difference between realism and symbolism in art would appear to be that the realist aims at the reproduction of the actual appearance of natural objects as an end in itself, while the symbolist uses the representation of objects as a means of suggesting ideas that are not capable of direct presentation in art. Thus a flower might be used to express purity, a lion might be chosen to represent courage, and so on. These are simple forms of symbolism, which to some minds appear as arbitrarily selected substitutes for ideas, while to others they seem to be natural emblems, in which the spiritual principle has expressed itself as fully as the limitations of matter will allow.

It would seem as if the materialist, or realist, looked upon natural objects as ends in themselves, whereas the symbolist sees in them but a limited expression of the inherent idea. To the latter the idea is the reality, and the visible object is but an image that conceals the reality while suggesting in its form the underlying forces that produced it.

To such a one the use of symbolism in art will appear inevitable: while the realist who looks on the visible world as the reality will necessarily consider symbology as an attempt to suggest the existence of that which is but a matter of belief or speculation, by the unnatural use of natural objects.

But this crude way of stating the case does not cover the ground. Man is complex. Man is not aware of the complexity of his own nature. Man is a mystery, and his life is full of paradox. So it is natural to find the most determined realist displaying a tendency to symbolism, which to a spiritually minded man must appear as an involuntary testimony to the existence of a soul in the one who would

himself deny its presence; and this symbolism of the realist is perhaps a protest that his own soul makes against the tyranny of his mind, which tries to limit by theories the free range of spiritual expression. For the soul is dependent on symbology for language. Without symbolism the soul is silent on the plane of matter and mind.

I know well that there are those who try to make the word "mind" include the soul; but this is, to my thinking, but a trick to blind the mind to its own natural limitations. Self-deception seems to be a condition of life on the plane of intellect.

But mind is matter, and the Soul incarnate in material form must use the mind as its interpreter. So the mind has to play a double part, being the link between the more material and the next higher plane of consciousness.

In this way it may happen that a man who has accepted without close consideration the ordinary theories of materialism, may believe himself to be a realist in the ordinary acceptance of the term, while in fact he is keenly, or only faintly, perhaps, aware of the inner life of things that gives their outer forms significance. It may be this inner reality, the character of that which he represents, the soul of things, that charms his imagination and makes their outer forms so intensely interesting. He studies nature with all his heart and strives to reproduce the charm of it by the most faithful representation of natural objects. And he is not wrongly styled a realist, because he does indeed pursue reality even if he fail to understand the working of his own soul. But he is in fact a symbolist, for he is all the time seeking to give expression to qualities in nature which his Soul feels, but which no eyes can see, excepting in so far as they are symbolized by visible forms. And on the other hand the avowed symbolist may be the crudest kind of intellectual materialist, and never know it. may have wit enough to see the correspondences that exist between certain natural objects and certain abstract ideas, and he may find intellectual diversion in toying with these things as a child plays with a puzzle-game. There are painters also who are solely preoccupied with the sensuous charm of decorative arrangements of form and color, and who seek to give added interest to their designs by the use of figures and forms, the symbolical significance of which has been popularized by symbolic painters or poets. In this way vast numbers of ecclesiastical paintings have been produced, the real theme of which was some decorative arrangement of forms and colors, but

which pass for symbolical because of the use of familiar motifs as a basis for their artistic embroidery. This repetition of conventionalized ideas has naturally made the general public sceptical as to the real value of true symbology.

Conventionality is the crystallization of a form which originally embodied an idea. I say originally with intention and with no reference to time; the ancients were no nearer to originality than the moderns. All alike live and act and think in the present moment—they cannot do otherwise. The ancients were modern in their day, and the moderns will be the ancients of the future. Originality is the recognition of the origin of things, which is in the eternal. It is the perception of eternal truth and beauty in the temporary and evanescent form. Art is concerned with both the contemplation of the eternal verity, or the essential nature of things, and with the creation of temporary forms through which the eternal may become manifest. Art is in this sense a revelation of the eternal in the present moment.

That is why there is such similarity of purpose and aim, and even of method, in the greatest works of the great artists of antiquity and of our own day. The most marked difference between ancient and modern art is caused also by a similarity, or indeed an identity, of purpose in those painters who sought then as now to reach fame and recognition by skill and ingenuity in the manipulation of conventionalized forms and crystallized symbols. They are the materialists of all ages, even when the forms they use are intended to suggest spiritual ideas; because there is no real conviction behind the symbol, which is borrowed, but which is not an expression of the artist's own soullife. Having no root in eternal reality, their works reflect the temporary fashions of their day, as well as the traditions of their school, which change from age to age, and which have but one element of the eternal in them, the element of ceaseless change. So the works of these, the majority in all ages, are subject to classifications according to schools and periods, nationality or religion: whereas the works of the exceptional men of true genius have a most remarkable fundamental likeness, that seems to assert itself above all the peculiarities of their school or age. Their works bear the stamp of temporary conditions, no doubt, but that which makes them remarkable is the element of the eternal verity, which is beauty. This is what lifts a work above temporary fame and makes it "classic."

How often one is arrested by the inexplicable attraction of some

familiar feature in the surrounding landscape, or it may be in one's own room, a bunch of flowers in a vase, perhaps. Even now there stands before me a group of roses that seem to be trying to express their joy in their own beauty and their gratitude to the loving hand that led them to the society of others as beautiful as themselves, and so arranged them that the harmony of the association made each more fully conscious of its own deep joy of life. And in their inexpressible purity there seems to be a soul that seeks to symbolize its own emotion in visible form spontaneously, as a child smiles at its mother. There is a presence in the roses as of a stately lady from some celestial court who honors the chamber with her ethereal presence for a little while, and when she goes the flowers will droop and gently fade into insignificance.

The essence of symbology is significance. The secret of significance is the presence of the Soul.

The soul can only find expression in material form when all the elements of form are perfectly harmonious with the fashion of the soul. The ordering of this harmony is Art. The end is symbolism.

This is a practical age, we are told, and people have not much use for symbols. They prefer photography to art because they want the real thing, so they say. You may be shown a photograph of a cat and everyone may agree that the picture is lifelike, true to nature and not a symbol in any sense at all. It is accepted as a real reproduction of nature. But is it so? The photograph is small perhaps and flat and smooth and no thicker than a piece of paper, in fact it is from some points of view quite like a piece of paper. Does a cat look like that? does it feel like that? can you put a cat in your scrap-book like that? In what way is it like a cat? Obviously it is but a symbol that suggests a cat, and not really a reproduction of the creature. Yet the ordinary person who has no use for symbolism and suggestion thinks that photography is so true to nature, that it is entirely free from the taint of symbolism. But the fact is, all creation is pure symbolism, because all creation is but the expression of the invisible Soul of Things in outward and visible form. It is only possible to deny the universal symbology of nature by refusing to look beyond the outer form of things, and the deliberate acceptance of that outer form as the ultimate reality, the thing in itself. But even so, it is hard to see how a work of art, a picture, or even a photograph can be regarded as anything else than a symbol. What then is to be understood by the term when used to distinguish one kind of art from another? What is the difference between realistic and symbolic art if both are symbolic?

The answer is that in the one case the painter looks upon each object in nature as a reality in itself, and the purpose of art he takes to be the reproduction of such things, or the suggestion of their appearance in the most convincing manner possible. The symbolist on the other hand is supposed to use his power of representation in such a way as to suggest thoughts and ideas that are not inherent in the things he reproduces. He is supposed to use his imagination to make natural objects appear to be endowed with an inner life or significance that is not really theirs.

I need hardly say that to a true artist such an aim would appear inartistic to the last degree. True symbology in art is not an intellectual process for the creation of mental acrostics, but it is an expression of the soul of things that reveals itself to the soul of the painter, as an inner reality inherent in the outer form.

To such a man all things are symbols; all living beings are the ever-changing images of the soul's striving for expression in the universe of matter. The whole of life to his imagination is pure symbology, and in his art he seeks to utter truth that is living and comprehensible to the higher part of his intelligence. He is at no pains to manufacture allegories, all life to him is allegorical and he only seeks to simplify and to select some theme of allegory detachable from the complexity of those countless pictures wrought by the hearts of men into the tapestry of human history that they weave eternally upon the loom of time.

We are all symbolists, whether we will or not; we are all weaving at the loom of time strange pictures on the invisible tapestry of history, invisible perhaps only to our normal vision, but seen in part by the mysterious vision that we call imagination, hardly knowing what we really mean by that, or we may call our inner perception of these pictures intuition. Call them as you will, I think that they are actual realities and constitute the world's memory, its astral library, in whose archives are recorded all the thoughts and deeds of men. Each man is a recording angel and writes his doom each moment in the world's book of destiny. This is the symbolism from which no soul is free until it attains the ultimate illumination of the Spirit. The ultimate Truth is Light and Liberation: all else is Symbolism.

GOLDEN THREADS IN THE TAPESTRY OF HISTORY: by Kenneth Morris

PART III

CHAPTER IV — THE GREAT AGES OF ISLAM
THE AGE OF BAGDAD

THIRTEEN decades after the death of Mohammed, the Crest-Wave of Evolution reared itself in full splendor in the empire he had founded. It was then that the abdication of Hsüan-Tsong brought to an end the Great Age of the T'angs in China; and that the death

of Shomu Tenno showed that the glory of Nara had departed, in Japan. In Islam, the new age was ushered in by the fall of the Ommeyads of Damascus, the rise of the Abbassids, and the founding of Bagdad.

The time of preparation was over; now the long pursuit of knowledge was to bear its fruit. Islam was, as it were, reborn: Mohammed's own family acquired the Caliphate, and from the descendants of his worst enemies, the seed of Abu Sofian and Ommeya. A new enthusiasm seized upon Western Asia, and the glory of the world shone out over Mansur's new-built capital. The Road of Learning, now, was no longer a bone-marked camel-track across the sands, but a splendid highway, tree-lined, from marble city to marble city; you went not forth now to learn how Khalid or Amru divided their spoils after battle, but how Plotinus or Aristotle classified the principles of things. For now old Hellas was discovered, laid under contribution, and set the Arabian intellect aflame: even Sanskrit works were translated and studied; and all with the same care, exactitude and enthusiasm that had formerly been squandered on desert-wandering after tradition. Aristotle became a fountain of inspiration; but it was Aristotle as he came to them through the Neoplatonists: a Platonized Aristotle, giving scope for Platonic and spiritual methods of thought. The ink of the doctors, now, was being shed as profusely as ever the blood of martyrs of old. Medicine, sanctified by the Prophet's practice, became a scientific passion; and passed later, with al-Kindi and al-Farabi, into speculative philosophy. Enormous libraries were formed; an enormous literature was produced. Bagdad, as metropolis of a rich and luxurious civilization homogeneous from Cochin China to the Pyrenees, grew vast, learned and splendid beyond any western city since the noon and heyday of Rome. Mohammed's teaching of toleration was always at work to nullify the tendency of an established

church — of the human brain-mind itself, let us say — towards bigotry; for a hundred years orthodoxy meant the liberal Mutazalite doctrine. The highest honors were within reach of Jews, Christians, Guebres and Moslems alike. Doctors of all creeds and schools met to discuss philosophy before the Caliph; with but one restriction imposed upon their eloquence: they were not to bring forward "proofs of Holy Writ." Al-Mamun, Haroun's son and successor, became known as the Commander of the Unfaithful, from his love for extra-credal inquiry. The people who, but a century and a half before, had been wild desert Bedouins, now were polished city-dwellers and city builders, living in great refinement and splendor: not far from modern in their ideas of sanitation and hygiene; treating their sick and insane sanely in magnificent hospitals; doing wonders in architecture, literature and science.

Such splendor was to last undimmed some seven centuries; its highlight shining now on Bagdad, now on Cordova, now on Cairo, Ghazna, Samarcand, Shiraz or Bukhara. Yet always, until its destruction by the Mongols in 1258, Bagdad held a kind of sacred and metropolitan position; it was the seat of the Abbassid Caliphs, and the meeting-place of east and west. Its own Golden Age lasted about a hundred years, ending in 847, when al-Mutawakkil ascended the throne; he was a bigot of the narrowest sect of the Sunnis, the Hanbalite; and orthodoxy lost forthwith its old liberalism and enlightenment. From that time, too, the temporal power of the Caliphs was visibly declining.

THE AGE OF CORDOVA

Meanwhile the light had been rising in Spain. In 711, Tarik with five thousand Moslems overthrew the Gothic monarchy; and within four years the whole peninsula, except a few mountain districts in the north, was in Moslem hands. The tide of conquest overflowed the Pyrenees, and in 719, an Arab governor was appointed to have charge of Southern France. Charles Martel set a limit to their invasion at Tours in 733; but they held Provence in all for forty years; and Narbonne until 797; with the results that will be noted later. — Concerning the Arab conquest of Spain, this much may be said — it came as an almost unmixed blessing to the Christian Spaniards. Their late Gothic masters had remained foreigners, whom no bond of sympathy made one with the people they ruled. They had retained the pomp of

Roman civilization, but not its culture or equitable government; a privileged feudal caste, they held the land, and kept the Spaniards in subjection. There was no light, no learning, no education, no prosperity.

The Arabs quickly changed all that. They swept away the privileged classes: divided the land into small holdings, and left it to the natives to cultivate; and where these submitted, allowed them to be governed by their own officials according to their own laws. Their coming was an untold blessing to the slaves, a large element in the population. In return for the poll-tax, the Spaniards obtained civilization, leave to attend schools, freedom of worship, and a prosperity greater than they had known under the Caesars: a thousand times greater than they have known since. Even the crown of martyrdom was not denied them, were they dead set on winning it: you might go before a magistrate, and rail against Mohammed and his book; if you persisted in it, the law that decreed death to the public blasphemer would be allowed to take its course. But not before a wise and kindly cadi had urged you to go quietly home; not before, in many instances, he had gone to the length of shamming deafness, so that there should be no evidence to compel him to a duty he abhorred. There was a mania for such martyrdom at one time; the Spaniards went to it like Suffragettes to Holloway: to the equal embarrassment of the heads of the Arab government and Spanish church. It was the latter, finally, that succeeded in stopping it. — Be it said that conditions varied: there were periods of anarchy and bad government, and the Berber scourge when the Ommeyads had fallen.

In 755 Spain separated herself from the empire; and about a hundred and seventy years later, attained the Golden Age of her splendor. In 912, Abderrahman the Great came to the throne of a realm wasted and threatened; he was but a boy at the time, but soon had Andalus at the apex of her glory, feared and admired of the world. In that greatness he maintained her until his death in 961; nor was there any decline in the reign of his son al-Hakem; nor under the vizir Almansor, who ruled mightily for a puppet Caliph until 1002.

The population at any time during those nine decades would have been nearer fifty than thirty millions, exclusive of the Christian north. What is now so largely barren waste, was then under scientific agriculture: excellently irrigated, and yielding a thousandfold its corn and figs and grapes and olives and roses. Everywhere you should

find the prosperous villages, well-schooled; the great beautiful cities, well-sewered, well-lit, well-policed, splendidly paved, magnificently adorned, well-governed. Everywhere free and compulsory education; equal rights for women and men, Jews, Christians, Moslems and freethinkers. Consider Cordova, the capital; the Bride of Andalus: a city of lovely gardens, palaces and fountains; its eight hundred public schools and nine hundred public baths; its fairy domes and latticework, and minarets sunbright and multitudinous; its vast industrial population, skilful, gay and thrifty; its traditions of knighthood, minstrelsy and courteous life; its great University, that was the beacon of the western world, and where the deep Theosophic thought of old Greece and pantheistic India was expounded. For the light of Spain was no dim glimmer in those days; in a hundred ways it was a cleaner, clearer civilization than our own. A-glitter with the outward pomp and richness of life, yes; luxurious, yes; but hardly vicious or corrupt; and on the other hand secretly nurtured and made glowing by the promulgation of grand esoteric ideas. — Withal, this urge from above is turned mainly in thoughtful, philosophic and scientific channels: there is an atmosphere of intellectual gravity in the higher circles; your learned doctor, and not your inspired artist, is the protagonist of life. You shall find no titanic Master Wu Tao-tzŭ, no divinely gifted Li Long-mien here, to reveal the inward worlds and hierarchies with brush and canvas: art is confined to architecture, music and poetry: it is reason, and not imagination as in China, that is set aflame. Al-Hakem II, son of the great Abderrahman, had six hundred thousand volumes in his library; every one of them is said to have been annotated in his own hand.

After al-Hakem, Almansor; and after Almansor, the deluge. Berber anarchy; the rule of Almoravid bigots from Africa; growth of the Christian power in the north; which, after the fall of Granada in 1492, was to be the blight and desolation of Spain. The cruel bigotry of Isabella, Charles V, Philip II and Philip III, destroyed and at last expelled a whole people, a whole rich civilization; Ximenes, Isabella's minister, attended to the blotting out of every vestige of their culture. Millions of volumes were burned, a vast literature was destroyed forever; and the Torquemadas saw to it that the holocausts should not be confined to books. Here is a note quaintly characteristic: the mosques might be kept; holy water and the prescribed service would drive out what brimstone fumes might be supposed to linger, and bring in the

whole odor of sanctity instead: henceforth they should be churches. But the baths — no consecration would serve for them! The diabolism of cleanliness could never be exorcized. Soap — harmless, necessary soap; an Arab invention on which the poorest Moor, it is said, would spend his last penny rather than on food — there was to be no more of such ungodliness as soap in Spain!

Is this an attack on Christianity? Very far from it; it is not even an attack on Spain. But ah, that we could be healed of our blindness, that sees in Christendom the elect vessel forever, and imagines a permanent inferiority in other races and creeds! We are in the van now; a thousand years ago we were lagging far in the rear; and a thousand years to come — who shall say? Recognize the fact of human brotherhood, elder and younger brotherhood; play the game, you Christian nations, that are so strong now, but have been weak, and shall be again! Is there no Karma, to take account how you swell and puff yourselves up; how you cheat and bully and lie? There is no race, however fallen, that has not been, or shall not be, the people in their day; those on whom you pour your contempt, or fasten your oppression, now: alas! in their turn they shall contemn and oppress you; and the old miserable round of vainglory and oppression shall continue, until the Chosen People, wherever they may be incarnated, realize the Divinity of Man, and practise humility, justice, self-control and brotherhood. It is an inexorable fact in nature, is that last; and all the tragedies of history: the falls of empires and decay of civilizations; the forlorn hopes of heroes, the last stand of doomed patriots: they have all been means taken by severe and merciful nature to impress that supreme lesson on humanity. It is the evil in ourselves that is the enemy; our own lower selves that are the inferior race. Impose civilization on them; bend them to your will; conquer and enslave them; and you shall find that those others whom you despised, whom you envied or sought to exclude or feared, are human beings too: divine as you are; sorrow-laden as you are sorrow-laden; in need of your sympathy and help, as you, by heaven, are in need of theirs! Look for all the Perils, of whatever color, within yourselves; put an end to them there, and they shall present no insoluble problems to you on the Atlantic or on the Pacific, in the east or in the west of the world.

But Andalus, before she fell, had sowed the seeds of civilization in Europe. Embassies had come to the court of Cordova, from all the great monarchs of Christendom; and returning, spread the fame of a culture and splendor that were to their own, as modern Paris to Addis Abeba, London to Cabul or Timbuctoo. Merchants told the same tale; would-be scholars began to cross the Pyrenees southward; all unaware of Mohammed's injunction, Europe, aspiring, began to go upon the Road of Learning. The Jewish and Moorish doctors of Andalus had this strange peculiarity: they could cure sick men, whom the Galens of Christendom would but the more expeditiously kill; so the Andalusian physicians, paynims though they might be, came to be much in request with daring Christian kings who valued their lives a little. Then the Arabs had left civilization behind them in Provence: also a good name; and a people eager for intercourse with them. There Montpellier University grew up under broad-minded Christian counts, and Moslem professors imported by them from Spain, to be a seat of learning famed throughout the west. Presently it infected Paris with light; and through those two channels the doctrine of the philosophers drifted into France and Italy; until, in the thirteenth century, the name of Averroes became a warcry dreadful to churchly ears. Provence, in fact, became a little Christian Andalus beyond the Pyrenees: its Christianity mainly nominal, its culture wholly Moorish. There was much fellowship of spirit between the two races: both were swift-minded, brilliant and sensuous, song-loving and inquisitive, impatient of mystery and priestly control. The troubadour learned his art from Andalusian court minstrels, and sang the songs of Araby in his own language. Troubadourism spread northward; Normans and Frenchmen caught the infection of it; through these it came in contact with Celtic bards dreaming dim traditions from an age more idealistic than the troubadours'. From them it took on a loftier color and something of a spiritual impulse; and went out over Europe as Chivalry, the highest and truest inspiration of the dark ages there. So the first glimmerings of the scientific spirit were wholly, and Chivalry was in part, a gift from Islam, through Spain and Provence, to Christendom; there was another gift also, perhaps of even greater historical importance than these.

The Church thundered that all Jews, Turks, infidels and heretics were vile, and destined to everlasting fires. Provence, however, knew something of Jews and Turks (read Moors) from personal contact; moreover she liked them thoroughly, and had learned all she knew from them; and so, heeded not the thunders. Result: she grew herself a little heterodox and broad-minded: cooled in her reverence for

a Church she held to be — mistaken — as to the fate of her good paynim friends. Her bishops, despite Rome, vied with her counts in imitating Moslem pomp and splendor; also, be it whispered, in a corruption that neither counts nor bishops needed to imitate from anyone. Whereat Provence sneered the more; until presently the Church was quite discredited, and a monk's garb looked on as disreputable. Yet there was still a need for religion: which, since it was not to be found in the Church, Provence, or a good part of her, sought elsewhere. If Jews and Turks, why not also heretics? — Provence was not to be frightened by thunders. Hence the rise of the Albigenses. astounding thing, in medieval Europe, that there should be a religion, calling itself Christian, but outside the pale of the Church! It was unthinkable . . . must exist no more. So Pope Innocent armed his crusade in 1209, and quenched the nascent fires of Provence in blood; but meanwhile Europe was sitting up, and thinking a little, in a clazed sort of way. A light had been kindled, which she was not soon to Huss remembered it in his day, and Wycliffe in his. might stamp out Lollardry; you might burn John Huss, and soak Bohemia year after year with heretical blood; but just when you thought all was comfortable darkness again, lo, yonder would be that bothersome light flaring up elsewhere! There a bluff, defiant Luther, doing unwonted things with Papal Bulls; there, a bold bluff Harry, kinging it royally in his own kingdom. They scourged Count Raymond, and made him march with the massacring hordes of De Monfort; now let him scourge Harry Tudor, who dare and can! To neither Raymond nor Harry did religion mean much, in any spiritual sense, perhaps; but the Law chooses its instruments among the strong where it can find them. Provence went down in her day; her great work of lightgiving well begun, if not completed; but England in hers went on and up to great destinies; bluff Harry saw to that.

And down on all those changes looked and smiled an erstwhile Camel-Driver of Mecca, who had decreed of old time that there should be No Compulsion in Religion; and who had taught his Arabs that the Road of Learning was the Road of God.

THE AGE OF CAIRO

The tenth century belonged, of all nations on the earth, to Spain and Japan. Engi, the culminating period of the Great Age of Kioto, endured while Abderrahman III was restoring the prestige of Andalus; during the second quarter of the century, there was perhaps little

to choose between the two countries; during the reign of al-Hakem, when Cordova was at her acme, Kioto had dimmed a little. It is good to remind ourselves once more of these parallelisms. In the eleventh century, the light had passed to Egypt and China.

In 909 the Fatimites — on whose origin we shall say something later — had established their dynasty at Kairoan in North Africa; in 965 they had taken Sicily, and Egypt fell to them four years later. Cairo thereupon became their capital, and, within a few years, the capital of the western world. It was during the century that followed, the Great Age of Cairo and the Fatimites, that Mohammed most had his will of his people, in respect to freedom of religion. Toleration . . . why, there were Fatimite sovereigns who built churches for their Christian subjects! Nasir-i-Khusraw, poet and Persian and valiant Theosophist, gives a fine picture of Egypt as it was when he visited it, in the heyday of the Fatimites, the middle of the eleventh century. He speaks of the splendid government, the complete confidence that existed between Sultan and people: there were no police spies, he says, nor any shadow of oppression. In a year when the Nile had lamentably failed in its duty, and there was shortage of crops, the vizier consulted the wealthiest man in Egypt, a Christian merchant. Said the latter: "I have such and such an amount of corn in store": enough to feed all Egypt during six years. "I owe all my wealth to the good government of the Sultan," said he; "let him take my store now, and feed the people with it." And Egypt had a large population in those days. "Withal," continues Nasir-i-Khusraw, "neither did the Sultan oppress or wrong anyone, nor did his subjects keep anything hidden or concealed." Think of Cairo University, again; by this time the greatest in the world west of China; where the expenses of the students were paid by government; and that not only in the case of natives, but of thousands who flocked to the great seat of learning from all Moslem realms; or of Cairo hospital, the like of which is not known nowadays: where every ward looked out through marble colonnades into sun-rich patios where the orange and the myrtle grew; where streams of running water flowed beside every bed; and where, always remember, the treatment was essentially sane, essentially scientific; and dirt and quackery were unknown.

And in no part of the empire, except Egypt itself, did civilization burn more brightly than in Sicily: Palermo vied with Grand Cairo as a center of culture and refined life. In 1090, when the Fatimite

power was beginning to decline, the Normans captured Sicily; it chanced that the conqueror was a great man in more than mere military sense. The island was peculiarly blessed in Count Roger; and all Europe inherited the blessing. Instead of converting, exterminating or expelling the Saracens, as you might have expected, he set himself and his people to learn civilization from them: protected them, tolerated their religion, encouraged them in every way. So here was the second civilized country in Christendom, Provence being the first. In Norman Sicily, Christians and Moslems lived together on equal and friendly terms; but Arabic remained the polite language, and the civilization was wholly Arabian; the Counts were Saracen sovereigns in all but religion. And after the Normans, their policy was carried out by that greatest of all Sicilian kings, the Emperor Frederick II, called Stupor Mundi in his day; to whom, more than to any other individual, Europe owes her civilization. Frederick had been educated by Moslem doctors, and was himself suspected of holding Moslem It was he who planted a military colony of Arabs in the Apennines, to overawe the Pope withal; led the last crusade to the East, and won all he desired by friendly diplomacy, without ever a blow struck on either side. It was under his influence that the University of Naples and the great Medical School of Salerno, his foundations, became brilliant centers of light, through which civilization filtered out over Italy. All the professors at either were Moslems or Iews or their pupils. At his court, too, the Italian first evolved into a language of literature and culture. He, the Stupor Mundi, may be called the originator of that strange quickening of life which ran through thirteenth-century Europe, and was the beginning of the rebirth of European civilization. He was no Raymond of Provence, to submit to papal domination; but startled all Christendom into uneasy thought by his valorous contests with the Church. Though he fell at last, worn out physically by the opposition of half Europe set on by the Holy See, it was not until he had so amazed the world that things could never again be as they had been before. One wonders whether all, or half, or any, of the evil told of him, was true? Such great figures, opposing obscurantism, are invariably provided with an ill repute. Was he indeed, after all, sensualist and harem-keeper and the rest; or is it merely that we have been told the old, old story? Let but a man stand for the Truth against the World, and his name for honor and chastity shall not be worthy a century's purchase. At any rate, Frederick was a Moslem-hearted man in barbarous Christendom: a Moslem of Mohammed's Ink-of-the-Doctors school: and kicked sluggish Europe on to the Road of Learning. By their fruits ye shall know them. Greek learning from fallen Constantinople would have been an indigestible diet for Italy, a couple of centuries later, if Frederick had not fed her rather forcibly on Moslem learning when he did.

THE AGE OF PERSIA

By the end of the eleventh century, that which gave rise to Fatimite splendor was exhausted, and what was left of civilizing influence in Islam, was mainly to be looked for in Persia. There, it was tackling with partial success the task of imposing culture on ever-incoming hordes from Central Asia: Seljuks and other kinds of Turks. The Caliphs had become sacrosanct nonentities; political dominance had passed from quick-wit Arab and speculative Persian, and under the Turk implied largely the sword and military despotism. Yet the tide of literary life ran very high in Persia. Spurred up by the impetus of Islam, and by contact and rivalry with the Arabs, Persian genius, that had been, so far as we can tell, rather barren theretofore, began to blossom in rich poetic literature with Rudagi about 900; and went on increasing in wealth and splendor for centuries: even fostered, no less, by the pride and patronage of Turkish Sultans: rude men enough themselves, for the most part. Thus Mahmud of Ghazna was a true Turkish World-conqueror; yet made it his business to gather genius at his court. For him Firdausi wrote the Shah Nameh, one of the world's greatest epics; and received no reward for it, owing to some tantrum or momentary remissness of the Sultan. —Well, the latter had four hundred poets, all to be remembered and rewarded, at Ghazna at the time: Firdausi should have considered that. . . . It was Mahmud's wont, whenever he conquered a kingdom, to carry off its major lights; he almost went to war over reluctant Avicenna, who, so requisitioned, sought refuge elsewhere. —Withal, it was mainly an ostentatious barbarian, loving not learning for learning's sake, but for the luster it might cast on his name; and because, to be a good Moslem sovereign, foster learning you must. Peace to Mahmud on his golden throne!—he was typical of many: Khwarazmian and Seljukian potentates in Persia; the Mamelukes, under whose patronage Egyptian architecture was to become the wonder of the world: Islam impelled them on a road they had little will of their own to travel; and to do good work for civilization, though they cared not greatly, themselves, for civilization or for good work.

After Sultan Mahmud came the Seljuks, Togrul, Alp Arslan and Malik Shah: those were the days of that great Persian, the Nizamu'l Mulk, minister, founder of colleges and fosterer of learning; the days when "that great man, the Hakim Omar Khayyam," with his computations reduced the year to better reckoning: a grave, severe man, we are told, with much sense of humor, and a belief in reincarnation. Let those who will, find nothing better in his verses than cheap wisdom with a tinge of carnality: the mystics of his own land call him a mystic. — In those times, and on until the Mongol Conquest, there were as many courts in Persia as in pre-Bismarkian Germany: all literary and military rivals; and poets were as many at each of them, as starlings on a lawn of an April morning. It is difficult to name any one period as culmination of this long poetic splendor: Saadi and the great Jeláluddin flourished in the thirteenth century, during the awful Mongol time; and even after that deluge, came Hafiz in the fourteenth, whom many would count the greatest poet of them all; and Jami, the last of the classics, was not to die until 1492. Speaking generally, one may say that though government was somewhat Turkish, arbitrary and rude, yet life itself was wonderfully refined: fragrant and shining with a richly sensuous beauty, but palpitant beneath with worship and a strange spiritual exaltation: a matter of resplendent gardens wherein to take delight: the cypress groves of Rukhnabad, the rose bowers of Musalla, whose like "in Paradise you shall not find"; but wherein, too, all the beauty star-scattered on the grass: the crimson of roses — ah, the roses of Persia! — the riot and splendor of the tulips; the profound shadow, the darkness and quiet of the cypress trees; the voice of the bulbul at song; the little, slim crescent, silvery citron afar in the blue: and above all, the Wine and the Minister of Wine: — you should take them at one moment for the things they seem; but a moment after, and all the seeming vanishes, and spiritual meanings ripple through; that which seemed so beautiful to the senses, shall now be ecstatic, mysterious, pure, holy, divinely pure. As of old in Eden, God walks in the gardens of Shiraz; the cypress shadows are a divine mystery; the roses are crimson with the Divine Compassion; and you, Tulip by the edge of the lawn: you are the Cup of Jamshyd: you are the Holy Chalice: the scarlet and gold and beauty of you are nothing but the visible glory of the Lord. . . .

THEOSOPHY AND MUSIC: by Prof. W. A. Dunn



HE origin of the Art of Music is lost in the mists of antiquity. As far back as our historical records go, all nations of the earth, from the most civilized down to savage races, practised and loved some form of music. Music appears to be an intrinsic part of human nature at all stages of

man's evolution, providing expression for all thought and feeling that is beyond the usual channel of speech and gesture. The Chinese claim that music was practised in their race five thousand years ago, and from carvings found on monumental remains of India, Persia, Assyria, and Egypt, evidence is shown that both instrumental and vocal music was in a high state of development thousands of years before the Christian era. These monumental carvings show pictures of musical instruments remarkably similar to those in modern use, and to account for such workmanship of three to five thousand years ago, it is necessary to allow a still more antique period for the evolution of musical thought and intelligence, for the expression of which instruments were constructed. The modern piano, for instance, does not indicate the beginning of our musical knowledge, but registers the result of musical thought from the time the system of ancient Greece was taken as a starting-point.

Madame Blavatsky states that —

From the remotest ages the Philosophers have maintained the singular power of music over certain diseases, especially of the nervous class. . . Likewise, the most ancient Egyptians cultivated the musical arts and understood well the effect of musical harmony and its influence on the human spirit. We can find on the oldest sculptures and carvings scenes in which musicians play on various instruments. Music was used in the healing department of the Temples for the cure of nervous disorders. . . . The theory that the whole Universe is a musical instrument is the Pythagorean doctrine of the Music of the Spheres. Sounds and colors are all spiritual numerals. . . . Happy is he who comprehends the spiritual numerals, and perceives their mighty influence.

The foundations of modern music were drawn from the ancient Greeks, who regarded Poetry, Art and Music as necessary to education and culture.

During the Christian era music has undergone a temporary obscuration as to its true nature, and it is only during the past two centuries that it has re-emerged as an independent Art, thrusting aside its servitude to mere pleasure and entertainment and asserting its divine right to proclaim the laws of the unseen forces of Nature.

In this our own day a wonderful change in regard to the value

of musical training is in progress. Its former office as a kind of finishing touch to education is giving way to the view that as a mode of discipline to mind and heart, it is unsurpassed in arousing to action the intrinsic faculties of original thought and moral strength. To think and feel musically is equivalent to equipping the mind for a sane and harmonious mode of conduct, especially when the Will is aroused to action, and the lower desires made subservient to a higher and nobler purpose.

In a recent work dealing with scientific topics, Dr. Karl Pierson of University College, London, makes the following statement:

Within the past forty years so revolutionary a change has taken place in our appreciation of the essential facts in the growth of human society, that it has become necessary not only to rewrite history, but profoundly to modify our theory of life, and gradually, but none the less certainly, to adapt our conduct to the novel theory.

These words indicate the general trend of thought in recent works touching on scientific and philosophic subjects, as well as those dealing with social and educational problems. In fact, we are passing out of an age in which Science, Art and Philosophy were parceled off from each other into separate branches of knowledge, and entering into a realm of ideas which recognizes the mutual dependence of scientific knowledge and philosophic insight, and the blend of these two in Art, or Doing. Or to state it in the words of Prof. William James: "Ideas are rules for action. To develop the meaning of a thought we need only determine what conduct it is fit to produce." The ancient scriptures of the world indicate that the dawn of so-called history followed a time when the Gods lived on earth as Teachers and Leaders of men. It would seem that the historical period with which we are conversant "commenced" when the unity of man's spiritual nature had become broken, and the various faculties of Soul, Mind and Body fell away from their original co-ordination, losing thereby the directive power associated with their perfect ensemble.

This distribution of the divine power of man's Soul into subordinate and separate faculties may be compared to the passing of a strong national government into separate political groups that had lost the principle of co-ordination upon which national unity had previously depended. This spectacle of a nation waxing strong and powerful when co-ordination between its *internal* forces was active; and its decline and final disintegration when co-operation had become lost in the clamor of individual self-seeking, is one of the most important lessons to be culled from the pages of history.

Thus the progress of a civilized man, both in relation to himself, and in his numerous associations with all others, is the outgrowth of perfect co-operation between the various forces of human life; while separation between mind, heart and soul leads to loss of spiritual and moral power, and the appearance of subordinate arts, sciences and philosophies that conflict with one another in the many claims they separately advance.

Now the object of the Theosophical Movement is to remove the cloud of ignorance that obscures this great truth of Human Brotherhood, by demonstrating through actual practice, as well as by precept, that the growth and welfare of humanity utterly depends upon mutual and sincere co-operation as between all aspects of national and social life; and upon that co-ordination of individual faculties of mind and heart which resolves them into self-unity and moral power. A brilliant brain untouched by the heart is as great a menace to progress as a strong emotional character giving way to disastrous impulses because unchecked by a thoughtful mind.

Before touching upon the subject of music, and the pure influence it contributes to the upbuilding of human life, it is advisable to indicate the three distinct stages through which the mind passes in all pursuits for knowledge. When the mind of a child begins to take notice of things as separate objects, and learns names to attach thereto such as man, board, bench, house, etc., he recognizes each object as clearly as he ever will, but he stops there. Later, the same child will say "the man is sawing a board," or "making a door"; the mind of the child has passed from recognizing objects to an insight of what is being done. Still later, the same child will see beyond the objects, and what is being done with them, to the underlying meaning of both, as, for instance, that of building a house. Now these three aspects of mind can be traced in everything we think about. Like the child, we know the separate names of countless objects, but know much less how to act upon what we know, and still less as to the underlying meaning of the grand purpose of human existence.

Now in the art of Music we possess a perfect illustration of the *oneness* of human life. As an Art, Music expresses every ideal and emotion of the Soul; as a Science it is a perfect exposition of the laws which govern the vibratory motions of Nature; as a Philosophy,

it expresses the truth of Universal Brotherhood, and of Absolute Justice regulating the minutest detail in the universal scheme of life.

The element of Sound, upon which music is constructed, is as mysterious in its origins as are the Röntgen X-rays, or the solar forces which generate heat and electricity. The old definition that sound is "stagnant air struck" is completely out of date. That it is a universally diffused "something," possibly of a higher grade than electricity itself, is evidenced by the fact that sound penetrates through substances which obstruct all other forces known to science, and conveys to the listening ear the "tonal form" of the sounding object. The conveyance of the human voice from San Francisco to New York through a telephone wire presents much food for thought as to the true nature of this energy we call "Sound." It is obviously "something" in addition to the electrical current which merely conveys the human voice in its entirety across the continent.

Now from this intangible substance of universal sound, music draws material of various qualities for the construction of her invisible temples in which the Soul of man may reside for a space. And this is no fanciful dream of the imagination but a solid fact based on scientific data. The invisible forms attendant on compound tones have been made to register themselves on loosely strewn powder covering a stretched membrane; and the results shown are startling as to their form and meaning. All the sounds of the same pitch invariably yield the same geometrical form, while two or more sounds give complex figures not unlike sea-shells and other spiral forms. But most wonderful of all, the human voice, according to its quality and intensity, will transmit figures of endless variety, some of which resemble flowers, ferns, and trees. These experiments have not been carried further than mere observation, but as indicating a remarkable potency in the art of Music, they are of supreme value. Whence arise the superb states of thought and feeling which good music stimulates? Why is it that the repetition of a song we heard in early life awakens the deepest memories? Surely it is because music is the language of the Soul, universal in its direct appeal to all other Souls. The national song that becomes laden with the Soul of a nation is no myth, but a dynamic power that thrills every atom of one's being.

Creative genius is musical intelligence at its highest — a mingling into *one* act of the higher formative thought and the natural physical forces. It does not necessarily execute music in the conventional

way. It may manifest as Leadership, as poetry, or in any manner from which humanity draws inspiration and uplift. It is a power that expresses direct the fundamental laws of life. It creates new forms of expression out of the inexhaustible storehouse of the Soul, and causes them to become realized facts in everyday life, thus lifting the sum-total of life to higher levels of progress. All classic literature, music and art presupposes an ideal thought with a dynamic tendency to clothe itself in material elements. The idea commonly held that the practice of notes and technical studies creates musical intelligence is an error. These only train organs for use. The true musician must cultivate musical thought and judgment — then the disciplined hand and throat become of radical importance. He who thinks in sounds and their harmonious relationships, realizes the laws which govern social and individual life, for thereby he touches the deep currents which unite individuals into groups and nations, with their countless relationships and adjustments.

On the objective side, scientists have, by observation and experiment, shown that the phenomena of Sound connect music with all other modes of natural phenomena. Periodic vibration, or movement, is everywhere noticeable in Nature, the laws of mathematical ratio regulating all chemical affinities and all cosmical movements. Thus what is known in the microscopic scale of the sense of hearing finds its counterpart in the universal scale of Cosmos and Nature. In other words, man within is a complete replica of humanity without, the same law operating through both the infinitely minute and infinitely great. Musical Intelligence rests upon the adaptation of man the unit to Humanity the whole, of which he is an integral part, recipient of all the forces of the larger organism he is bound up with.

Between nature, and the soul that thinks and feels in musical cadences, there exists an intimate relationship that progressively rises to identity of Being. Everything in Nature being in a constant state of vibration, the fundamental unity of all that lives must be harmonious music that inwardly holds all streams of evolution in perfect adjustment.

In the *Li-Ki*, or Memorial Rites of the Chinese we read:

Music is intimately connected with the essential *relations* of beings. Thus, to know sounds, but not airs, is peculiar to birds and beasts. To know airs, but not music, is peculiar to the common people. To the wise alone it is reserved to understand music. That is why sounds are studied to know airs, airs in order to know music, and music to know how to rule.

To indicate that music can directly grasp the invisible Soul of Nature, the great philosopher Schopenhauer wrote:

As the Soul of the World is to us a mystery, a composer is forced to speak in a language which is beyond him — he resembles a somnambulist permeated with the magnetic fluid, informing us of matters of which, in his waking state, he has no notion. As music exists in the heart of things and lives on their essence, it results that it has a hold on all objects whatever.

Richard Wagner wrote:

There ought to be in us an internal sense which becomes clear and active when all the other senses, directed outward, sleep or dream. It is precisely when I no longer see or hear anything distinctly that this sense is the most active, and appears before me as the producer of calm — I can give it no other term. It acts from within to without, and through it I feel myself to be at the center of the World. . . . The power of the composer is naught else than that of the magician.

Returning to Chinese mythology we read the following from the teachings of Lao-tzŭ, who lived about the same time as Confucius:

Music is the expression of the union of Earth and Heaven. With Music and Ceremonies, nothing in the Empire is difficult. Music acts upon the interior of Man, and brings it into connection with the Spirit. Its principal end is to regulate the passions. It teaches fathers and children, princes and subjects, husbands and wives, their reciprocal duties. The sage finds in music the rules of his conduct.

The highest expression of sound with which we are acquainted is the human voice. It conveys the inner forces of the person speaking, independent of the formal language used. We instantly recognize the expression of joy, sorrow, terror, sympathy, sarcasm, or compassion, whatever may be the speech or nationality of the speaker. Pure sound is a natural and universal language that unites soul to soul as if outer veils did not exist, hence in music we have an absolute and direct reproduction of the habits of the Soul that incites to corresponding action in outer life. Music is the art of thinking in periodic movements, in contrast to contemplation of fixed ideas or memorized pictures. To think in sounds assists the free action of thought, and conducts the feelings into realization of the meaning of life. At the same time it disciplines the whole nature by the laws of harmony and rhythm which unceasingly regulate every department of Nature, from the association of chemical atoms into compounds, to the mutual adjustments of stars and planets. The most insignificant sounds of Nature have been found to be as fully representative of periodic law as the more

extended movements of the earth or moon. Thus, in great and small, in a single human soul, or in the whole race, the laws upon which the art of music is founded, are equally operative.

Thus as a means to an understanding of Theosophy, which in its essence is the Art of living in harmony with humanity and nature, music is one of the most potent aids to our hand. The trained ear which conveys such truth to the mind and heart presents an example of the harmony which might be introduced into the chaotic mental imagery conveyed through the organ of sight. It might then be found that the "appearances" which sight views as external and separate, will convey their hidden causes through the inner sense of hearing, thus combining the objective world presented to sight with the inner world of sound-vibration. The Theosophic life takes into account the totality of man's being, and the harmonious adjustment of every atom and cell of his organism. His separation into body and soul, mind and heart, is only present to the personal consciousness which follows successive desires and immediate interests which obscure larger issues. But successive units of time cannot be separated from the larger cycle of destiny in which we are all involved. In some mysterious way the totality of life is with us in every act and thought, and it seems impossible to escape the absolute Justice which Nature extends to our efforts. Music expresses the absolute precision of this law of adjustment and harmony, hence when accepted as a mode of spiritual discipline, both in thought and conduct, it flings wide open the door which conveys us to the inner recesses of life where truth and sincerity abide.

God spoke, and through the soundless realms of Space
The keynote of created music rolled;
And time felt harmony with its hold—
The pulse-beat of eternity's embrace,
The Infinite in finite hearts we trace,
As ages strike the chords by Love controlled;
The earth is vibrant, and with rhythm untold,
All sounds in Nature's orchestra find place.
O Sound! thou art the echo of a word
That broke the primal stillness by command—
An echo, through whose strains our souls have heard
A promise of the choral raptures grand,
That, voicing love and praise, forever rise
In Music's natal home beyond the skies,

THE HINDRANCE OF DESIRE: by Percy Leonard



N a Sanskrit book already old when Christianity began, appears a remarkable statement. Patañjali the author assures us that once we have conquered that almost universal tendency to covet everything that seems desirable, we acquire the power of acquiring all material wealth. The read-

er, dazzled by the glowing prospect, is tempted to resolve to rid his mind of every trace of personal desire and thus by an easy short-cut, become the lucky possessor of what others spend long lives of labor to attain. But the subtle and intelligent laws that control human life are not to be so easily imposed upon, and we can never gain the end in view by simply persuading our desires to lie quiet for a time with the promise of indulgence later on. Thus it is very clear that Patañjali's recipe is only open to the man for whom the goal has lost its value, so that he who had all material wealth within easy reach, would have no possible inducement to take possession of it.

The action of the curious principle involved is plainly obvious even on the low level of a commercial application. A man of business wholly indifferent as to the result of his ventures, would occupy a standpoint far above his feverish competitors, now hurried onward by the mad delirium of an over-sanguine hope, now plunged into the depths of equally foundationless despair. His judgment would remain so cool and so deliberate as to decide unerringly between two closely balanced probabilities. His power to estimate the trend of markets and the course of values would appear almost miraculous to his excited rivals; and this simply for the reason that having freed himself from the disturbing influence of desire, the clear discrimination of the Higher Mind would be the ruling power in his affairs. Patañjali however had far higher planes of human interest and activity in view when he set down the statements we are now considering.

In the sphere of the emotions we may trace the effect of this attitude of indifference every day. A man who is selfishly eager for love and sympathy is instinctively recognized as a vampire wherever he goes. Consciously or unconsciously he is always demanding that kind of psychic food preferred by his nature, and all with whom he comes in contact resent the selfish appeal and retire into their citadel in self-defense. That man on the other hand who freely radiates love and sympathy to all, careless of personal returns, is like the sun a universal benefactor and welcome in all companies. His mere approach calls forth a genial flow of kindly feeling which he returns with added

force, since he is in his own person a living generator of such vital currents and not a mere absorber.

It often happens that the eager devotee of knowledge by his very impetuosity raises a barrier in the way of his attainment, while the man who quietly pursues his level course of universal helpfulness, will often light on unexpected truths while occupied with very commonplace affairs. To those intent on helping Nature, the grateful mother lifts her veil, and as her fellow-workers they find themselves admitted to the inmost shrine, while selfish seekers tire themselves in vainly battering at the outer gate.

And on a higher level still the action of the selfsame law may be observed. Religious — but none the less selfish — devotees who long to reach "that sweet and blessed country that eager hearts expect" will clamor for admission all in vain, because the very vehemence of their desire shows them as discontented with their lot, and hence rebellious in respect of that Good Law which places every man in that precise environment which is at once his destiny and his inevitable due. The man who glows with never-failing cheerfulness and sheds an influence of serene content already lives in Heaven, while discontented people even if admitted to that region (if it can be thought of as a point in space) would still be discontented.

Man is essentially divine and sits beside the secret spring from which all goodness flows, his deeper life inseparably blended with the heart-throbs of the teeming population of illimitable space, and with that cosmic energy that sparkles in the midnight sky feeding the veins of solar systems with exhaustless streams of life.

When man, forgetful of his high estate, stoops down to snatch some private gain, by his own act he makes himself an exile from his royal home and goes to swell the crowd of mendicants who wait expectant at the outer gate.

Thus everything of value is ours, yet so deceptive is the glamor of the separated life, that we suppose our welfare is promoted by acquiring and retaining private hoards of wealth. Appeal and exhortation are but insults to the man who grasps the situation as it stands. The Indian sage has pointed out the way; this leads to the climination of futile desires; the wise will scarcely hesitate as to the path to follow.

SCIENCE NOTES: by the Busy Bee

THE HEALING POWER OF GOLD



NOTHER vindication of ancient science is furnished by the recent use of gold as a healing agent. For we learn that at a meeting of the French Academy of Sciences a report was presented on the success achieved by surgeons in treating wounds with colloidal gold. Wounds which had

remained infected after the ordinary treatment were treated by intravenous, intramuscular, and local injections; and in cases of abdominal wounds the gold was injected as a preventive of infection. These facts, we are further told, led a writer to reflect on the use of gold as a medicine in past times and many places. "Undoubtedly its first employment was mystical or magical." The sun-god had been worshiped, and it was natural to consider gold as possessing some of the healing attributes of the sun, just as it possesses the beauty and incorruptibility of the sun. Pliny is quoted as recommending the application of gold to wounded persons and to children, to diminish the power of spells of witchcraft; and as stating that it cures eruptions, fistulas, ulcers, and such other complaints. And other ancient writers are quoted. The alchemists tried to produce liquid or potable gold.

It would seem that the ancient scientists arrived at their conclusion deductively; but the commentator speaks rather banteringly of their ideas, though obliged to concede the correctness of their judgment and the value of their results. The situation resembles that of a traveler who, having reached a goal and found that other people had been there before him, should say: "Those childish people stumbled upon it accidentally by using a map." A wise man would proceed to copy the ancients in other matters, and to imitate their method too. That about gold being compared to the sun because it is bright and shiny and incorruptible, is rather nonsensical. To compare the sun with gold because both are incorruptible is far-fetched, to say the least. One needs to study ancient philosophy before writing about it. Why did the ancients and the alchemists connect Venus with copper, and Mars with iron? A different explanation needs to be devised in these cases. In what respect does the planet Venus suggest the metal copper? What is the connection between the deific power known as Venus, and the planet which is next to the earth, and the metal copper or cuprum, and the island of Cyprus, and the symbol of the ansated cross? The doctrine of "correspondences," based on the great law of analogy, helped the ancient philosophers to many a discovery which the moderns miss. One is reminded of a satire by Edgar Poe, in which the philosophers refuse to accept any fact, however obvious and important, unless it has been discovered either by the inductive or the deductive method — which he calls the method of crawling and the method of creeping. And he says that fitness is the criterion of truth. The method of analogy is the great key to discovery. As to magic, the fact that there are impostures and counterfeits in it proves that there must be a genuine magic. Nowadays we are so superstitious that we take all allegorical writing in a literal sense, mistake truth for falsehood, and falsehood for truth. Our materialism causes us to be believers in the supernatural; the ancient philosophers did not believe in the supernatural. Baron Münchhausen did not believe in the supernatural because "he had seen too many wonderful things for that." Magic is an understanding of the secrets of Nature, so called because possessed by Magi or wise people. But the man who desires knowledge has to live up to it.

ANOTHER instance of the same kind is the following. In some parts of Europe (says the English Mechanic, October 23, 1908) it is customary among the people to burn sugar in a sick-room, a practice which is considered by physicians as an innocent superstition. But a professor has demonstrated that burning sugar develops "formic acetylene hydrogen," one of the most powerful antiseptic gases known. Five grams of sugar were burned under a glass bell holding ten quarts; and after the vapor had cooled, bacilli of typhus, tuberculosis, cholera, smallpox, etc. were placed in it and were all dead in half an hour. If sugar is burned in a closed vessel containing putrified meat or the contents of rotten eggs, the offensive odor disappears at once. "Look at that, now!" we say; science triumphantly vindicated, as usual, and superstition defeated! But seriously, assuming that the burning of sugar for disinfecting purposes was a superstition, the question is how did such a superstition arise? Why sugar, and not some other of the numerous combustibles that might be enumerated? And why burn it? And why use it for disinfecting? It is incredible that such a practice could arise as a mere superstition (if indeed there is such a thing as a mere superstition). But it is quite easy to believe that it was done because someone had accidentally found it to be effective. It is also easy to believe that the smell of burnt sugar conveyed to the minds of some people that it would be thus efficacious.

There is another class of so-called superstitions which are simply formulas that will not work without some secret not contained in the formula, or that will only work in the hands of certain persons. A novice might take a trumpet and blow vigorously, and even study up the instruction book and learn to push all the pistons in the right order, and yet never get a sound out of it. The divining-rod, the genuineness of whose performances is now admitted, by the attestation of learned scientific bodies deputed to investigate it, owes its efficacy to some quality in the manipulator; and if the method of using it were taken from some book, a majority of persons would find the directions ineffective — especially incredulous persons. Books of magic contain many such processes, and it may well be that these are quite workable under certain conditions that are unwittingly ignored by the experimenter. Again, it may be suggested that some so-called superstitions are phenomena which will only work in an atmosphere of general belief and are killed by scepticism; for man has an immense influence over nature, and his mental attitude limits to a considerable extent her powers.

LEMURIAN SNAILS

Evidence of the existence in remote past times of a Pacific continent — Lemuria — is afforded by the land snails found in Hawaii. The Boston Transcript tells of the observations of the great conchologist Dr. Henry A. Pilsbury of Philadelphia, who has found on those islands a great number of land snails, all intimately related to each other anatomically, of a very primitive type, and unlike any forms found elsewhere except in Samoa and the Society Islands. The conclusion is that these primitive forms became isolated when Lemuria went down, and were gradually cornered in these lonely islands, thousands of miles away from the mainland on all sides; their isolation prevented competition, and so they remained primitive. The most important difference between Theosophical and current scientific views is with regard to the existence of men in Lemuria, Theosophy teaching that this continent was the home of the Third Root-Race. It may be observed that at the present time we have men and

land snails occupying the earth together, that according to Theosophy the same state of affairs as regards men and snails existed in the days of Lemuria, whereas the scientific view would represent the earth as tenanted in those days by snails but not by men. The Theosophic view strikes one as more symmetrical. It is in fact a much fuller account of evolution than that given by contemporary science. The latter sees but one line of evolution going on, but Theosophy sees several going on simultaneously. Thus the men of those days would be conceived as being part of an earlier line of evolution, the life-tide having reached the human stage; whereas the animals of those days would belong to a succeeding life-tide. Thus there would be all the kingdoms of life represented then as now. These larger ideas of evolution are important and should be studied.

A PERPETUAL MOTION CLOCK

PERPETUAL motion is defined as that of a machine which will continue to run indefinitely without using up any energy either from an external or an internal supply. Hence, in practical mechanics, it means the construction of a frictionless machine, a thing which we have not yet found out how to achieve. And even should such a machine be made, it could not perform work because the work would stop the machine. Nevertheless the universe is full of perpetual motion, as for instance in the movements of the planets and all the countless activities of cosmic life. True, it is said that even these are gradually "running down"—that is, turning their energy into dormant and unavailable forms, and that the universe will therefore one day come to a dead stop. This is so far in accordance with the ancient teachings, which state that universal life consists of alternating periods of manifestation and latency, or, to use the Sanskrit terms, of Manvantaras and Pralayas. We said "so far," but here comes in a further point: just as the period of activity begets the period of repose, so does the latter in its turn beget the former. So that, after all, we have perpetual motion. The law would seem to be that, as soon as an organism is absolutely dead, it is then just in the condition for a return of life. The problem of perpetual motion in physical mechanics has received new light from the discovery of radioactive materials, substances which possess a very large store of latent energy and thus remind one of the perpetuum mobile of the alchemists and the eternal lamp of similar legend. The human organism contains a store of energy good for the best part of a century, and other organisms contain their allotted stores of the oil of life. Perhaps there is somewhere in the human make-up a store of energy good for many ages and capable of tiding the being over the waters of Lethe till he tread once more the upper air — and that many times. If so, it would remind us of the perpetual lamp, burning in a windless cave; a thing which alchemists tried to imitate by an actual material lamp — which perhaps could also be made, if the laws of analogy hold good. A radium lamp might solve the question.

In the eighteenth century a jeweler named James Cox, of Shoe Lane, London, made a perpetual clock, which was capable of running as long as the seasons roll, provided occasional repairs to the machinery were executed. It was hitched on to a barometer. The mercury, whether rising or falling, moved a rachet and cog mechanism, which kept the clock wound; and this supply of energy, so far from being insufficient, was found to be so much in excess of requirements that special mechanism had to be provided for throwing it automatically out of gear whenever there was danger of the clock being overwound. Was this a perpetual motion machine? Shall we argue: Perpetual motion is impossible; but this clock was possible; therefore the clock was not perpetual motion? It is easy to see that machines might be hitched on to the tides and to other natural movements: and in this case they would, like the clock, of course draw checks upon cosmic energy, and thus bring the present Manyantara to a close a little earlier than otherwise — if any meaning can be attached to the word "earlier" in such a connection.

THE SYMBOLOGY OF WELSH STONE-CIRCLES

THE mathematical principles underlying the movement of the heavenly bodies, and consequently determining the epochs of cycles in the history of the earth and in that of the human races upon it, was known in ancient times and recorded in a symbolical language which can be interpreted to a greater or less extent according to the knowledge of the interpreter. This vast and complex subject is treated by H. P. Blavatsky in *The Secret Doctrine*, but from time to time various archaeologists hit upon some clue, which, as they are not acquainted

with the subject in its entirety, they generally overdo, thus running into extreme views which give a handle to the sceptical and conventional critic.

In the Athenaeum we see a review of a book on Wales, by Gilbert Stone, from which the reviewer quotes the following:

The researches of Sir Norman Lockyer and his band of helpers into the astronomical significance of Stonchenge and the other circles of Britain, together with the independent mathematical investigation carried on by E. M. Nelson at Helstinsgarth in the Shetlands and elsewhere, taken in conjunction with the philological discovery made by Prof. Morris Jones that Welsh is exactly paralleled, so far as its syntax is concerned, with Egyptian and Berber and the pre-Celtic languages of the Hamitic family — allied to the Semites — have proved, we think conclusively, that from about 3600 s. c. at latest Britain was inhabited by a race connected by blood with the Babylonians or Egyptians, and in close contact until at least 1300 B. c. with Egyptian culture and Egyptian priestcraft. . . . The evidence of folk-stories, superstitions, and legends, together with the researches before mentioned, suggest that these people were a stone-using people; that they inhabited well-nigh the whole world from the Himalayas to the Orkneys, excepting Scandinavia, Germany, and Russia; that they were skilled in mathematics and astronomy, and worshiped Baal, and Astarte or Venus. They were non-Celtic, and were possibly a matriarchal people.

The author further says that each circle is stamped with the "number of the 'Beast'," or that every circle was —

planned according to certain sacred numbers which stand for the moon, the sun (Baal), and Venus (Astarte). These numbers are 3, κ , and 7 or 66.6. . . . From measurements [of numerous circles and monoliths], of the Great Pyramid, of temples at Great Zimbabwe, and many Greek temples, it appears that these three numbers formed the basis for every kind of calculation.

Not having the book itself at hand, this is all we know of the writer's views. But it is enough for comment; and even from this little we can see what a weight of evidence there is, from colossal stone monuments, all over the world, for the view that great races occupied large tracts of the earth in prehistoric times, forming a homogeneous civilization, and having great knowledge of the mathematical laws underlying cosmic and natural processes, as also marvelous engineering ability. All this of course supports the Theosophic teachings with reference to the sequence of races. We also see illustration of the tendency, above alluded to, to proceed too quickly to a conclusion and to ride a hobby to death. Other archaeologists are finding other clues, and each man may air his own particular linguistic views without much regard to the other men; and the same with the various views

of race migration and diffusion. A mine of suggestion will be found in *The Secret Doctrine* on the gods denoted by the Sun and Moon and Venus, with their Chaldaean, Creek, and other names; as also on the numbers, geometrical forms, and Kabalistic anagrams connected therewith. One is always glad to see the ancient builders recognized as intelligent people instead of semi-monkeys with stone axes.

One prophecy made by H. P. Blavatsky at all events is being fulfilled, and that is that this century would witness continual confirmations of what she wrote about the Secret Doctrine of Antiquity and its world-wide diffusion. Some races in the past would seem to have been entrusted with the task of engraving on stone certain records and memoranda in a symbolic language, so that certain important facts might pass down through periods of destruction and be re-read by people having the key to the symbols.

Do Iron Tools Injure Plants?

In *The Outlook* (New York), for September 22, is an article entitled "Of Interest to Classical Farmers," the object of which is to show that Columella of Gades, writing in the first century A. D., knew as much about the uses of alfalfa and about other agricultural matters as we moderns do. But what concerns us here is a remark made by the Roman writer about the avoidance of iron tools. He says, speaking of the procedure after the sowing:

When you have done this, brush in the seed with wooden rakes; this is most important, for otherwise the sprouts will be withered by the sun. After the sowing no iron tool should touch the beds; but, as I have said, they should be cultivated with wooden rakes, and in the same manner they should be weeded.

In his comment the editor says:

We do not know whether Columella's fear of the iron implement was prompted by the thought that the crowns of the young alfalfa plant might be injured, or by that same superstition which retarded the acceptance of the metal plowshare, and of which Newbold, the New Jersey pioneer in the field of modern agricultural machinery, was the victim. It will be remembered that Newbold's neighbors were gravely of the opinion that the metal share both poisoned the ground and made the weeds grow!

We are inclined to think that Columella was not referring to possible mechanical injuries inflicted by the iron tool on the seed or sprout. It may be one of those cases where some natural law, not as

yet recognized by modern science, is concerned. The deep-seated belief with regard to the metal plowshare needs some explaining. The explanation about bruising the young plant will not apply in this case. If not to a scientific mind, then at all events to a judicial mind, the fact of the belief requires accounting for. With regard to the question of so-called superstitions in general, it is usually harder to believe they are mere superstitions than to accept them as true. Take the case of the divining-rod, for instance: is it conceivable that mankind in all parts of the earth would have thought of such a method of searching for water if it were not founded on some fact? And now even scientific men are admitting that it is founded on fact, though they cannot explain it. May it not be the same with the plants and the metal tools? Science says that the moon does not influence the growth of plants, but so strong is the popular testimony from all ages and every land to the contrary, that we find ourselves quite unable entirely to disregard the statements of universal antiquity.

Infantile Tendencies

Every child knows the old game of hunting for an object hidden by a companion who helps him by telling whenever he is "getting warm" in its vicinity. The alienists, in searching for the clue to psychic pathology, are not yet becoming "as little children," nor are they relying upon their intuitive insight in diagnosing obscure cases. The pathologists have been led too far afield by current theories of physical causation for all diseases to appreciate the invisible realm of mystic forces, which is no less real than tangled nerves and disordered brains. Naturally, as the alienists return from the professional bypaths to the main line of progress, they read their own literal meanings into the sign-posts along the way. That they are "getting warm" in searching for primeval principles in human make-up may account for the growing place given to "infantile tendencies" in studying psychopathic cases.

The classic problem of Epilepsy is being recognized as something beyond a purely physical equation. The idea is now put forth that the unconsciousness with the convulsions is an attempt to escape unwelcome contact with everyday environment by returning to the antenatal state of intra-uterine serenity. This "infantile-tendency" explanation, however, does not quite explain its own origin. There is

nothing to mother it, so to speak, because a disturbed or abnormal antenatal condition of the mother is offered as a causal relation to the potential epilepsy in the child. By what medium was the maternal disturbance implanted in the psychic foetal make-up? Current physiology does not admit the transmission of the mother's feelings to the unborn, because they have no direct nerve connection. A connecting medium would account for the maternal maladiustment to the situation reacting to key the embryonic psychic forces at odds with the material elements of the forming body. Thus a neurotic heritage of inner discord would tend to extend its relations to the later environment. Physiology also inclines to the Topsy Theory, that the embryo "just grows," the unborn consciousness being regarded as practically nil and dependent upon post-natal stimuli of the senses, and upon muscular action. This leaves a missing link in the logic of the alienist's novel theory: how can convulsions be caused by the subconscious ego's strong and enticing memory of an antenatal state of nothingness? how can it be lured back to enjoy something it never knew?

This theory does not yet uncover the cause, but the scientific search is "getting warm." The "infantile-tendency" idea is a timid step away from materialism toward recognizing an immortal principle within the body.

If existence were so unforgetable a reality in the silence and darkness of foetal life, there could be no consistent limit to it before birth and after death. As a matter of fact, the Theosophical teaching shows that the incarnating soul is eager to understand and control matter; so that the evasion of everyday duties would indicate a lack of spiritual action and express some astral or physical impulse.

THE RESURRECTION BONE

THE London Lancet (October 1910) contained the following:

The most careful searching in the last published and amplest treatise on osteology will not result in the discovery of the bone called "Luz." It will be necessary to go to the Frankfort edition of the *Theatrum Anatomicum* of Caspar Bauhinus (1621) for a description: "It is stated by Hebrew writers to be a bone which can not be destroyed by fire, water or any other element, nor be broken or bruised by any force. Its site is in the spine from the eighteenth vertebra to the femur. We read that the Emperor Hadrian once asked Rabbi Joshua, the son of Channi, how God would resurrect man in the world to come. He made answer:

'From the bone Luz in the spinal column.' When Hadrian asked him how he came by this knowledge and how he could prove it, the Rabbi Joshua produced the bone so that the Emperor could see it. When placed in water it could not be softened; it was not destroyed by fire, nor could it be ground by any weight; when placed on an anvil and struck with a hammer, the anvil was broken in sunder, but the bone remained intact." Hieronymus Magius represents that, according to the Talmudists, the real bone is near the base of the skull. . . . Vesalius writes that this ossicle is called Aldebaran by the Arabs, resembling a chick-pea in size and shape, and Cornelius Agrippa describes it as magnitudine ciceris mundati (the size of a shelled pea). Different anatomists have held it variously to be the sacrum, the coccyx, the twelfth dorsal vertebra, one of the Wormian bones in the skull, and one of the sesamoids of the great toe. To have confounded it with the sacrum is natural enough on account of the name given to this bone by the ancients, ἱερὸν ὄςτιον . . . and the coccyx is that bone called al aib by the Arabs, which Mohammed stated to be incorruptible and to serve as a basis for the future edifice at the resurrection.

We do not feel prepared to accept the whole story about the Rabbi Joshua, nor are we competent to believe that there is any part of the physical body of man which can survive (as such) the destructive influence of fire. But we are willing to believe that the word "bone" refers to something which is not composed of physical matter, and that the actual belief of the said Hebrews was that this something was the immortal seed or link carried over from one life to the other. It may be, too, that a particular bone was regarded as the seat of this something during life on earth.

DISCOVERIES ON THE JANICULUM HILL, ROME: by C. J. Ryan



HE Syriac Temple on the Janiculum Hill, Rome, which was excavated in 1908-9, consists today of little more than the foundations, but many interesting carved figures have been found buried under the ruins which bring vividly before us a very curious phase of Roman religious experience. These

figures, as may be seen from some of the illustrations published herewith, are Egyptian or semi-Egyptian in type.

Towards the beginning of the Christian era, when the peace and unity of the ancient Mediterranean world was fairly assured by the foundation of the Roman Empire, a great religious movement began to develop, destined largely to orientalize the Roman classic or Olympian form of religion. The gods of the older nations of the East gradually imposed themselves upon the West. Cybele, the Great Mother, and Attis were transported from Phrygia; Atargatis from the Syrian Heliopolis; Isis and Osiris-Serapis came from Alexandria; the Baals of Syria, and Mithras from Persia, followed. The warmth with which these deities and the cults they represented were received by the common people is a measure of the failure of the orthodox system, and a proof of the demand for something less frigid and formal than was found in the chill sacrifices to Jupiter and the other national divinities. The Romans were ready for anything that would bring them some stronger assurance of the existence of a spiritual world and of a life after death, and they looked to the immemorial East for something to come.

The mystery associated with the Asiatic and Egyptian religions had its attraction. The cult of Isis and Osiris, even in its declining stage, was far more truly religious than anything to be found in the native Roman ones. In the oriental systems there was at least the opportunity to gain peace through purification, to practise asceticism, and to be inspired by a mystic ceremonial. At first the authorities tried to suppress the introduction of any foreign beliefs, probably for fear of political complications. As early as B. c. 220 the Senate ordered a temple of Isis and Serapis (Osiris) to be destroyed, and in A. D. 181 an attempt was made to establish the mystic religion by what is believed by some to be a pious fraud. Livy relates the following story:

Some laborers on the farm of Lucius Petilius, a notary, at the foot of the Janiculum, digging the ground deeper than usual, discovered two stone chests, about eight feet long by four feet broad. Both had inscriptions in Greek and Latin letters, one signifying that therein was buried Numa Pompilius, the other that therein were contained his books. . . . In the latter were found two bundles, each containing seven books; seven were in Latin and seven in Greek, containing philosophy. . . . The praetor, on reading the contents [of the Latin books] perceived that most of them had a tendency to undermine the established system of religion . . . and declared that he was ready to make oath that these books ought not to be read or preserved: and the Senate decreed that they should without delay to be burned in the Comitium. (x1, 29)

We should greatly like to know what these philosophic books contained, even though they were not as old as they claimed to be. Macrobius has preserved the striking reply of an oracle of Serapis:

Who am I? I will tell you what I am. The vault of heaven is my head; the sea my breast; the region of the sky my ears; and my eyes, the brilliant torch which sees and knows! (Saturn. I, xx, 17)

Serapis-Osiris, then, represented the One life in which all others were united; combined with Isis he was the great force of production in all nature.

A change came about in the treatment of the Syriac and Isiac cults immediately after the assasination of Caesar. Duruy, in his *History of Rome*, says:

The last measure of the Triumvirs [Octavian, Anthony and Lepidus] in this terrible year [41 B. C.] was an act of devotion — a decree for the erection of a temple to Serapis and Isis. This was a far from costly concession to the popular element, and a continuation on other grounds of the war against the nobles. The lower people sought after new gods, and they had reason; for more than a century the old gods had been deaf to their prayers. But the Senate disliked these foreign superstitions which they could not direct in furtherance of their policy; they had attempted in [B. C.] 58 to expel Isis from the temple of Jupiter Capitolinus, and the populace had opposed them. In 53, at the time of the oligarchical reaction, another decree ordered the destruction of all the chapels of the Egyptian Goddess, and forbade her worship, even in the interior of houses, a prohibition which Caesar renewed six years later. To maintain the purity of the Roman faith was the least of the triumvirs' cares; Isis was pleasing to the populace, and they restored her to them.

Gradually, however, as Caesarism became more and more transformed into absolute power, it looked more favorably upon the oriental priesthoods, for they supported doctrines which tended to elevate sovereigns above the general mass of mankind, or at least which could be twisted that way. After their deaths, and in some cases before, the Caesars were deified and received divine honors and sacrifices. This was, of course, a gross perversion of the great truth of the duality of man — the divine and the animal — skilfully used for political purposes. It was nothing strange or new. The eastern cults attained the zenith of their power with the advent of Severus to the throne at the end of the second century, but the Mystic Voice which sadly cried aloud across the sea "Great Pan is dead," as Plutarch relates, was right. The old cycle was closing, and a new form of belief was coming from the East, the source of religions, to hold sway for its appointed time.

The Janiculum Hill lies on the right bank of the Tiber near St. Peter's, and opposite the main part of the city of Rome. It rises to

a commanding height of 275 feet above the river, which in the time of the Empire was bordered with handsome villas in this neighborhood. The Janiculum was a favorite district with foreigners; this may explain the existence of the Syriac Temple lately found there, though there were also temples to the Egyptian and Asiatic cults in other parts of Rome. Statues of Jupiter Serapis (Osiris), Isis, the Hathors, Cybele, etc., have been frequently found in Rome, and splendid carvings, such as the great lions of the Pharaoh Nektaneb, brought from Egypt, show that the buildings must have been very magnificent.

MYRDDIN GWYLLT BRINGS THE FLOWERS OF THE WEST FOR A TRIBUTE TO CERIDWEN

By KENNETH MORRIS

HOWERS, and more flowers,
Wind-wavering, like a sea of flame,
Wind-whispering, nodding through the hours
The South Wind and the West Wind claim;
And ah, you have the right to them,
To deck your wind-swept glory of hair,
For coronal or diadem,
A quiet flame of beauty there,
Potent, and fair as any gem
Arthur or Caesar used to wear—
Ave. far more fair!

I deem I know
In what wild meadows of the sun
Where winter cometh not, nor snow
Drives southward ere the day is done,
They put fairy beauty on—
Saffron, amethyst and blue,
White of cream and lily-wan—
And where they got their druid dew,
That have more true, deep things to con
Than the Roman wizard, Fferyll knew,
Or Idris Ddryw.

By mountain cleft,
Or passage through the rocks and trees.
He that hath fireside safety left,
And the quiet speech that gave him ease,
And taken the Road of Mysteries,

And harked for what the Night Wind hears,
And sought for what the North Star sees —
Who hath found no softness in the years;
Whom love hath wrought no sorceries,
Nor grief, to bring his eyes to tears,
Nor no hate sears —

At last shall win

Access to that unshadowed land;

He shall have lordly state therein:

Dominion o'er the lonely strand

And the mountain places; he shall stand

Before your throne ecstatic hours,

And you shall touch him with your wand

Whose gift is holy and healing powers:

He shall have knighthood at your hand,

And of your eyes, what light endowers

These mountain flowers.

Here's columbine

I gathered on Garth Faerdre side:
 A little eldritch star ashine

Ivory-pale, or dark with pride;
(And unto whom should be denied
 A secret and a lofty mind,

That hath seen the twilight horsemen ride
 Steeds of pale flame or pearl-hued wind
O'er flamey mountains far and wide,
 Shadowy against vast skies behind
 Encarnadined?)

I know well now,

By Math and by Ogyrwen taught,

Who heaped the April apple-bough

With white and pink snow magic-wrought!

And who the blue wild hyacinth fraught

With mysteries past human ken—

Aeonian and aerial thought

By no means to be told, save when

The seeker through seven lives hath sought,

And hath donned all the nature then

Of the Master-Men.

It was your eyes
Kindled them all, I know, of old,
And made them magically wise
With deep things from the Age of Gold.

Ah, Queen, what secrets have you told

To the grave green rushes by the stream,

To make their brown tufts manifold

So wrapt from utterance to seem,

As who should bardic things withhold

Where slight tongues wag or slight eyes gleam,

Or slight minds dream?

It is with you

The mountain foxglove is embued
With lonely haughtiness anew
With every dawn and dew renewed.
Sentinel of the solitude,

He keepeth ward o'er beauty there,
Lest aught of evil should intrude
On the Gods' mountains anywhere.
He hath his guerdon—to be hued
Like the winter sunset, mournfully fair
On the pallid air.

You will I hymn
In meadowsweet and daffodil,
The king-cups by the bog-pool brim,
The dark-sweet heather on the hill.
The hart's-tongue fronds by the hidden rill.
And all the gold of gorse and broom;
For 'tis the wonders of you fill
The orchards and the meads with bloom,
The ring-dove's and the ousel's bill
With song, and make the mountains loom
All glory and gloom.

Dreaming of you,

Mine eyes grow blind with wizardry;

The world's compound of flame and dew,

And one great tender flame, the sky;

And every star that shines on high

Aflame with quintessential soul,

And the wayside blooms are mystery

Adrift from beyond the ages' goal —

Arcane, celestial, not to die

Nor grow dim while the aeons roll Toward Time made whole.

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LATENT LIFE AND THE CONTINUITY OF EXISTENCE: by T. Henry, M. A.



HE study of latent life is much neglected, says Paul Becquerel, but it is a universal occurrence and is met whereever germs exist; and there is no portion of carth or air free from germs. The spores of fungi, bacteria, mosses, algae and ferns; pollen grains from flowers, the seeds of

phanerogams, the cysts of infusoria, the eggs of certain insects; animal tissues and even some perfectly developed forms of life called revivescents, such as certain species of algae, mosses, lichens, rotifers, arctisca and nematodes — all can pass into a state of latent life. Thus they escape the injuries of cold and draught for years until an opportunity comes for their development.

Baker succeeded in bringing nematodes to life twenty-eight years after their dessication; and the life-cycle of these beings does not exceed ten months. Spallanzani dried and preserved rotifers for three years, and found that they revived in water.

Before a committee called by the Société de Biologie it was established that (1) there is no appreciable life in the inert body of revivescent animals, (2) that the revivifying power survives conditions fatal to all functioning life, e. g., eighty-two days in a dry vacuum or thirty minutes at 100° C.

Claude Bernard, on the latent life of seeds, says that it is potential and exists ready to manifest itself; but that it is wrong to say that the seed possesses a life whose manifestations are reduced to a degree so low as to escape observation. For, theoretically, there can be no manifested life without the interaction between the internal force and the external conditions, and the latter factor was absent in the experiments; and actually, the life of the germ is in no wise exhausted, as it would be if even a small degree of functioning life existed during the quiescent state. No functioning life could exist when the seeds are in chlorine or mercury.

Some biologists, however, have maintained the contrary view that the "latent" life is merely relaxed and not suspended, and claim experiments in their support. Moreover, if the life were suspended, would not the period of latency be indefinitely extensible? Paul Becquerel has germinated seeds eighty-seven years old, from a museum with accurate date records; they had a thick husk, impermeable to gaseous exchange. But he avers that the germination power diminishes with time, and Ewart states that macrobiotic seeds do not keep

it much beyond a century. As to the theory that there can be no functioning life without interaction between the seed and its environment, it is argued that there *can* be an interaction between the protoplasm and the gases and water *within* the seed.

These remarks are abstracted from a paper by Paul Becquerel in the Revue Générale des Sciences pures et appliquées. He cites much experimental evidence to show that dessication and other privatory means reduce the protoplasm to a virtually inert state, but without killing it. The word "dead," as applied here to protoplasm, evidently means non-existent; the protoplasm has decomposed. A distinction should perhaps be drawn between "has died" and "is dead." In the case of suspended animation we could then say that the protoplasm still is, but is dead — exists in a dead condition but has not died. In the same way our own existence might be divided into periods when we are alive and periods when we are dead, but we exist all the time. To make it still more exact, we could suppose that some of our functions are in the live condition and others in the dead condition at the same time, so that we are largely dead now, and may be more alive when our physical and physico-mental activities are in the dead state.

These facts about latent vitality illustrate a general principle, namely, that of the contrast between two poles, at one of which the powers are potential, while at the other they are active and manifested. When we sleep, our powers sink into the potential condition, and there are analogies that suggest a similar opinion as regards the state of death. This helps us to form an idea of the continuity of existence. Instead of regarding death as merely the absence of life, and thus viewing successive lives as a series of detached units, we may consider life to be continuous and to alternate between the two poles of activity and latency. And how does this affect the question of Reincarnation? We can stretch our recollections and our sense of identity over the alternating periods of waking and sleeping, but not as yet over the successive phases of life and death. It is perhaps then, a question of our degree of development.

As to what has been called "spontaneous generation," the burden rests on those who believe in it to show that living organisms can be produced in mineral matter after *all* germs have been excluded — no easy matter in view of what has been said about the latent condition of germs. H. P. Blavatsky states repeatedly in *The Secret Doctrine* that occult science teaches spontaneous generation, through the incar-

nation of monads, which are germs not yet materialized. This leads to the idea that even should the protoplasm die, the monad would survive and be ready to coalesce once more with matter. The visible organisms are the successive manifestations of a life that is unbroken.

A scientific writer, commenting on the expression "organic life," asks, "Is there such a thing as inorganic life?" To many the distinction between organic and inorganic seems arbitrary. Perhaps it is based on the fact that the organization of the kingdoms below the vegetable is less obvious and less understood than that of the higher kingdoms; in which case the word "inorganic" is the measure of our ignorance, and we apply the word "simple" to things which we have not fathomed, on the same principle as the blank spaces on the map of an unexplored country. A man was shown the anatomy of a slug under the microscope, and said: "Why, I always thought a slug was nothing but skin and squash!" And so the inorganic world has seemed to us to be so much dirt. This makes the universe to consist in an overwhelming proportion of dirt, the rest being the things that live on the dirt. Yet the more we study the so-called dead matter, the more organization we find in it. The movements and properties which are observed by the chemist and the physicist have as much right to be included under the abstract designation "life" as have those studied by the biologist. These phenomena are impelled from an unseen source and obey orderly laws, just like the others; the only difference seems to be that the conduct of animals and vegetables is more like our own than is that of the minerals. We give animals a mind because they behave like man who has a mind; we are not so sure that the plants have a mind, but we give them life because they grow and do other things which we and the animals do. Does the mineral kingdom respond to environment? Surely it does, if we are to take into account chemical action. So, if this is a test of life, the minerals have life; but this we are accustomed to call chemical action.

In the physical laboratory we study two main characteristics of matter, and to these have been given the names Mass and Energy, representing respectively the static and dynamic aspects of natural phenomena. Yet these two — mass and energy — after having been shown logically to be abstractions, prove to be verily so when we try to run them to earth. For what has the new research in atomic physics givens us but mass reduced to the vanishing-point? And are we not told that mass varies with velocity, thus upsetting the old equa-

tions connecting quantitative values of energy, mass and velocity? There is a vis viva or living force throughout nature, whether in man, animal, plant or stone; but we cannot bring it into the focus of our physical perceptions, even aided by instruments; nor yet can we adapt it to that conceptual power whereby we project the properties of the physical world into the sphere of the imagination. And of course nature cannot stop short at the limits of our powers of observation or of imagination. Therefore it is both logical and inevitable to seek the source of nature's energies and qualities in a realm that lies beyond those manifestations. Beyond the phenomenon stands the noumenon — in philosophical parlance. A phenomenon is that which appears; a noumenon is that which is thought. Thus, back of qualities and energies in the world of physical objects lie ideas and intentions in the world of thoughts. The existence of such ideas and intentions of course implies a mind or minds capable of entertaining them. And back of nature there is mind, much individualized in man. and successively less so in the lower kingdoms.

It is stated also in philosophy that, before a noumenon can be manifested as a phenomenon, there must be an appropriate *vehicle* for that manifestation, just as the potter requires his clay and the artist his medium. Hence there must be a basis of physical matter, and this basis must be devoid of the properties which are imposed upon it by the noumena that are manifested in it.

Drugs are mineral matter, and when we eat them we get a glimpse into their character; for all kinds of effects are produced on the mind by taking drugs. Properties of another kind are attributed to gems, but the knowledge of this has somewhat lapsed in our times. The mineral atom contains that vital spark which ultimately will give rise to all the higher forms of evolution; but in the mineral that spark is in the latent condition so far as most of its powers are concerned. The vehicle through which the vital spark manifests itself is not capable of manifesting greater powers than those which pertain to the mineral kingdom. In the next higher kingdom, the vegetable, the vehicle for manifestation is of a higher order and therefore more of the powers latent in the vital spark can be manifested. This is a very rough outline of a part of the great cosmic process of evolution. It brings out the fact that the whole world is animate, and that every activity is a manifestation of the universal life, the universal life being the result of interaction between spirit and matter, each of which can

exist in varying degrees or "planes." But the "matter" meant here is the propertyless substratum spoken of just above — the substratum, that is, of physical matter or of any of the other kinds of matter.

Theosophical philosophy, recognizing the objective existence of planes other than the physical plane, is naturally more competent to explain evolution than is any science which takes into account the physical plane alone. Physical objects are conditioned by spatial extension, which is modified quantitatively by size and qualitatively by shape. Whether spatial extension is subjective, objective, or a phenomenon resulting from the interaction of subject and object, is a question that need not be considered here. We have a physical sense apparatus, corresponding to the physical plane of nature, and the phenomenon of spatial extension arises somehow in connection with our physical perceptions. Moreover we project into our imagination ideal forms derived from our physical perceptions, as, for instance, when we visualize any physical shape. But this particular kind of spatial extension does not necessarily, or even probably, apply to other forms of objective existence. The monads just spoken of, for example, are not on the physical plane, and cannot be conceived as having any size, shape, and other physical properties. This, however, does not prevent them from being real and from being perceptible by other faculties than the physical sense organs. It is evident, therefore, that we cannot progress very far along this line of inquiry without trenching upon a domain that is not open to the general inquirer. And this undoubtedly is the reason why, in writings on the subject, one finds suggestive hints but not the satisfaction one might be disposed to wish for. However, H. P. Blavatsky has not failed to indicate to those desirous of knowledge the conditions under which knowledge is obtainable. These may be summed up in the word "trustworthiness"; which means that the aspirant must not only have a pure and unselfish motive, but that he must possess a far greater command over his own faculties than is usually the case. We cannot study the forces outside us unless we study the forces within us; and the key to the understanding of the mysteries that lie beyond physical science is the study of oneself. Wisdom errs not, in that it puts important information in places where it can only be reached by those tall enough; and the present state of the world is proof enough that the keys to the problems of life, creation, etc., cannot be put within the reach of the people in general.

Papers of the School of Antiquity

THE SCHOOL OF ANTIQUITY shall be an Institution where the laws of universal nature and equity governing the physical, mental, moral and spiritual education will be taught on the broadest lines. Through this teaching the material and intellectual life of the age will be spiritualized and raised to its true dignity; thought will be liberated from the slavery of the senses; the waning energy in every heart will be reanimated in the search for truth; and the fast dying hope in the promise of life will be renewed to all peoples.—From the School of Antiquity Constitution, New York, 1897.

STUDIES IN EVOLUTION: by H. T. Edge, M. A.

UR first section this evening is headed:

A Mongrel is not a Connecting Link:

THAT CAPABLE JUNGLE-HEN

and it is intended to show that certain intermediate forms between different species are not connecting-

links marking the transition from the one species to the other, as had been supposed, and as the theories of evolution seemed to require; but that they are in fact merely mongrels produced by the interbreeding of the two species, and that consequently there is no transition by their means from the one species to the other. Professor Bateson, whose masterly address to the British Association in 1914 we again quote, says this in connection with two allied species of plants known as Lychnis diurna and Lychnis vespertina. His words are:

Examine any two thoroughly distinct species which meet each other in their distribution, as for instance Lychnis diurna and vespertina do. In areas of overlap are many intermediate forms. These used to be taken to be transitional steps, and the specific distinctness of vespertina and diurna was on that account questioned. Once it is known that these supposed intergrades are merely mongrels between the two species, the transition from one to the other is practically beyond our powers of imagination to conceive.

And again:

Knowledge of heredity has so reacted on our conceptions of variation that very competent men are even denying that variation in the old sense is a genuine occurrence at all. Variation is postulated as the basis of all evolutionary change. Do we then as a matter of fact find in the world about us variations occurring of such a kind as to warrant faith in a contemporary progressive evolution? Till lately, most of us would have said "Yes" without misgiving.

We should have pointed, he says, to the great variability seen in

Nature; but this variability has proved quite illusive under close examination. It is observable where a large number of different varieties of the same species are found together, crossing freely. A study of heredity has shown us that the differences between these varieties are "factorial"—that is, that the various individuals possess in various relative proportions certain constituents of the original breed from which all have diverged. This is the same result as is produced by artificial and experimental breeding. But the point is that the differences are not brought about by the addition of new factors but by the loss of factors. Somewhere there exists a parent moth from which all these other moths sprang, and whose germinal cells contained all the factors which have since become separated and distributed in varying proportions in the germinal cells of the descendants. Or perhaps that parent animal no longer exists. In either case, the evidence from a study of heredity points to the conclusion that the differentiation is rather on the downgrade than the upgrade. Instead of all the domestic fowls being improvements on the old jungle-fowl — improvements achieved presumably with an ultimate view to Nature's or God's great scheme of producing man — they are merely shattered fragments of that efficient old bird. She it was — that gaudily striped wild hen whose germinal cells contained a complete set of the genetic elements; and so things must have continued until one day she chanced to meet another jungle-bird. Calling these two — the Adam and Eve of fowls —"A" and "B," we can easily see how, by the theory, their first batch of eggs would be AAAB, AABB, ABBB, etc., and how the chicks from these eggs, growing up, would then produce Mr. A²B and Mrs. AB2, etc. Thus we have now in our barnyards fowls of the most fantastic complexity; but, says the theory, they are by no means improvements on their original parents; they are mere factors, simulacrums, hopeless digressions. All they can do in the way of breeding is to go on producing more fowls, opening up still further vistas of the latent possibilities contained in that original hen — until (or unless) some sudden event occurs and produces a "mutation" and evolution proceeds *per saltum*, as speculation demands. The following are some more quotations from the address:

We have no longer the smallest doubt that in all these examples [domestic animals and various wild animals and plants] the varieties stand in a regular descending order, and that they are simple terms in a series of combinations of factors separately transmitted, of which each may be present or absent. . . .

The new breeds of domestic animals made in recent times are the carefully selected products of recombination of pre-existing breeds. Most of the new varieties of plants are the result of deliberate crossing. . . .

Formerly *single* origins were generally presumed, but at the present time numbers of the chief product of domestication . . . have in turn been accepted as polyphyletic, or, in other words, derived from *several distinct* forms. The reason that has led to these judgments is that the distinctions between the chief varieties can be traced as far back as the evidence reaches, and that these distinctions are so great, so far transcending anything that we actually know variation capable of effecting, that it seems pleasanter to postpone the difficulty.

IS EVOLUTION UPWARDS OF DOWNWARDS?

Without multiplying references at present, we may sum up the effect of what has already been cited. The theory of a derivative origin for species is still held, but great difficulties have been found in trying to discover the method. What is found to be going on now is not of a kind to produce the required results in any length of time. The drama of evolution seems like a tree, whose stem has produced branches, its branches twigs, and its twigs shoots; and this process of subdivision seems to go on indefinitely. At this rate, we should look for more dogs, more cats, more monkeys, and more men, the varieties increasing all the time; but many of the varieties disappear.

Distinct types once arisen, no doubt a profusion of the forms called species have been derived from them by simple crossing and subsequent recombination. New species may now be in process of creation by this means, but the limits of the process are obviously narrow. On the other hand we see no changes in progress around us in the contemporary world which we can imagine likely to culminate in the evolution of forms distinct in the larger sense. By intercrossing dogs, jackals, and wolves new forms of these types can be made, some of which may be species, but I see no reason to think that from such material a fox could be bred in indefinite time, or that dogs could be bred from foxes.

So we see that the evolutionists, though firmly believing in the derivative origin of organic forms in a succession, are unable to supply the connecting links.

There is another point that should be mentioned before we pass on to consider the ancient teachings, and that is whether evolution has been from simple to complex, or from complex to simple. On this Bateson says:

As we have got to recognize that there has been an evolution, that somehow or other the forms of life have arisen from fewer forms, we may as well see whether we are limited to the old view that evolutionary progress is from the simple to the complex, and whether after all it is conceivable that the process was the other way about.

This may be thought revolutionary, and it does not bear out the confident assertions of the popular writers on evolution. It seems clear, however, that there is ample room in Nature for both processes, and they are undoubtedly both going on at the same time. Types of animal and plant have reached their maximum of development in bygone geological ages and have since become reduced to very degenerate copies or have become totally extinct. Other forms however are as evidently on their ascending arc. Moreover, if we keep in mind the idea of a double evolution — that of spirit descending into matter and that of matter ascending towards spirit — we shall see that it is possible, indeed inevitable, to represent evolution as at once from the simple to the complex and from the complex to simple. For, when the universal life descends into matter, it does so as a mere atom of life (a "Jiva" or "Monad"), with all its powers latent, and this may be described as a descent from complexity to simplicity; yet the subsequent history of that Monad is one of gradual unfoldment from potentiality to full manifestation.

THE ANCIENT TEACHINGS — ASTRAL PROTOTYPES MISSING LINKS

Since biologists cannot trace the connecting links, it is reasonable to assume that the principal (or causal) acts in the drama of evolution are carried on behind the scenes. And indeed logic demands that there should be a "behind the scenes"; for behind the visible effects in Nature must ever stand the invisible causes — a necessity of reasoning, however far we may analyse. Physicists find it necessary to assume a non-physical matter as a basis for physical matter, and one supposes that biology and physics run hand in hand. But we need not make the mistake of limiting ourselves to only one kind of ultraphysical matter, for it is much more likely that there are many grades of matter, one beyond the other. It is stated in *The Secret Doctrine* that —

There can be no objective form on Earth (nor in the Universe either), without its astral prototype being first formed in Space. From Phidias down to the humblest workman in the ceramic art, a sculptor has had to create first of all a model in his mind, then sketch it in one and two dimensional lines, and then only can he reproduce it in a three dimensional or objective figure. And if human mind

is a living demonstration of such successive stages in the process of evolution, how can it be otherwise when NATURE'S MIND and creative powers are concerned? (II, 660, note)

This sounds like common sense. For another illustration we might take the human body; it is obviously built on a model. A mole on the skin or a white lock in the hair are reproduced in precisely the same region throughout life. Without cessation the body wastes and is rebuilt, the physical atoms always fitting into the same places. But for further light on this point we must be content to refer to writings on the astral body and the astral plane (by which, of course, we mean those written by H. P. Blavatsky and her pupils, the members of the Universal Brotherhood and Theosophical Society). It must suffice here to premise that all beings are capable of existing in a non-physical condition, and it would take us too far afield to discuss the nature of that condition. There are, as may be supposed, various states of objectivity in the universe, and the physical state is but one of these. A thought, for instance, is an objective reality, and our mind possesses faculties which enable it to perceive thoughts and to handle them as we do when we think. But thoughts are not objective to our five physical senses and they do not occupy that which we call "space" (or they are not qualified by the condition we call "space"). In short, they are not on the same plane as physical objects. The claim is that the causes of evolution are found in one or more of these hyperphysical planes of objectivity.

Another analogy, used by W. Q. Judge, may help us here. The course of evolution resembles the progress of a man up a spiral staircase, and the scientist may be compared to a spectator standing outside the tower within which the staircase is built. Looking through a window, he sees the man every time the man comes to his side, but loses sight of him betweenwhiles. So we see the typical forms appearing ready-made, and with analogies suggesting that one proceeds from the other; but the transition stages we do not see. Or, taking the illustration of the electric light bulbs, the main current does not run through them all in a string, but runs in a large wire, each of the bulbs being a switch or side-path leading out of the main wire and back into it again. So the stream of evolution runs invisibly behind the scenes, while from the main circuit there run side-branches into the visible world.

Theorists err in trying to represent Nature's plan in too small a

compass. Various hypotheses are offered as alternatives, when there is room in Nature for all the hypotheses to be true, without even then exhausting the probabilities. Thus, some types may be fixed and unchanging for long ages, while others may be undergoing rapid change; there is no need to suppose a uniform rate for all. The facts show that some plants which have been experimented on are in an unstable and changing state; and we know that most of the types of animal life have remained the same for a very long time.

WHAT IS AN ANIMAL?

An animal is a conscious being, having a physical organism. This much we can see. In accordance with the Theosophical teachings, there must also be a subtle body within the physical body; a vital principle which builds the physical body upon the subtle body, as a shuttle carries the thread through the warp; and an animal soul, the center of instincts. It is impossible for a student who purposes to study evolution in the intelligent way which Theosophy advocates, to shut up his eyes to the fact that an animal is a living conscious soul, and to study the physical organism and its functions as though there were nothing else to study. To understand evolution, we must understand the history of that animal soul. Indeed it is essential even for the materialistic biologist, however he may try to avoid the issue; for how can the animal respond to environment unless he is alive and sentient? Two factors are necessary for this response to environment — the environment itself and the living thing that responds to it.

It is surely reasonable to suppose that the animal himself is the proximate cause of his own evolution. He is engaged in learning the lessons of life in his own small way. Constantly he gleans experience, though at a much slower rate than man. If it be asked why in this case the animal remains the same for such long periods, we may answer (just pausing a moment to remark that we have ourselves used this argument of the fixity of animal types in our criticism of the evolutionists) that the animal body is not the same thing as the animal itself. The latter may progress, while the physical type remains the same. Men are not born with gray beards and thought-laden brows, nor is the progress of the immortal human Soul held back by the fact that the human type remains nearly unchanged throughout long ages. In short, the ancient teaching is that the Monad journeys through all

the kingdoms of life, beginning with the lowest — the mineral — and after aeons spent in that kingdom, passing to the vegetable kingdom, and so on. Thus the animal monad may pass through a gradually ascending series of forms, and yet the standard types remain nearly unchanged for ages.

H. P. Blavatsky quotes more than once the Kabalistic aphorism:

A stone becomes a plant; a plant, a beast; the beast, a man; a man, a spirit; and the spirit, a god.

This shows that she is in accord with the general principle of evolution, though not with all the modern speculations as to the details. Modern science, under its own appointed conditions, cannot expect to see what goes on behind the scenes; and, since there must be a "behind the scenes," science will naturally miss much that is indispensable. The Monad, or Life-Atom, exists on a plane that is not physical, in a space that is not our ordinary space (to speak in common parlance); and, though having an objective existence, is not perceptible to our physical senses. Yet it must be accepted as a fact, for it is the mysterious entity that enters into organic forms and causes their visible growth. And however long the standard types of organisms may persist nearly unchanged, the Monad which tenants them can achieve its evolution by incarnating successively in higher and higher forms. In connection with Man there was another line of descent, when the Monad from the lower kingdoms was united with the Divine Monad, and when Man, from being a "living soul," became a "God," endowed with the knowledge of good and evil.

"EVIDENCES" OF EVOLUTION: WHAT DO THEY PROVE?

A writer on modern evolution begins by stating that it is quite clear there are only two hypotheses in the field to explain the origin of species — Special Creation, and Natural Evolution. "There is no third hypothesis possible; for no one can rationally suggest that species have been eternal." As to hypotheses, we beg to suggest that there may be an indefinite number of hypotheses which nobody has yet thought of. Finally, the argument, if valid, merely proves that species are due to *some kind* of natural evolution, but not necessarily (indeed very improbably) the particular kind advocated by the writer. This may serve as a specimen of logic.

The same writer states that the theory of evolution starts from life as a datum already granted, the question of the origin of life not falling within the scope of the theory. But this preliminary assumption has handicapped the theorists greatly; for it is only too evident that they have in the back of their minds a nebulous idea of what life is and what its capabilities are. It is legitimate to assume a premiss when all are agreed as to its import; but is "life" a word which conveys to every mind a clear and definite meaning? Why may not I, on the same grounds, assume God as a datum, or any other abstraction I choose? The writer should have have given a clear definition of life, seeing that so much rests upon it. The failure to do so is responsible for much of the general haziness and shiftiness of the theorizing.

The presence of rudimentary organs, such as the rudimentary tail in man, has been advanced as an evidence for the evolutionary theories. On this a writer on evolution asks:

Why is it not just as probably a true hypothesis to suppose that Man was created with the rudimentary sketches in his organization, and that they became useful appendages in the lower animals into which Man degenerated, as to suppose that these parts existed in full development in the lower animals out of which man was generated? — Creation or Evolution, George T. Curtis; quoted in The Secret Doctrine.*

In other words, the presence of such rudimentary organs supports the theory that animals have descended from man. And this is indeed the teaching of the Secret Doctrine, though of course we are not to suppose that it is taught that man *procreated* the animals.

The human type is the repertory of all potential forms, and the central point from which these latter radiate. In this postulate we find a true "Evolution" or "unfolding"— a sense which cannot be said to belong to the mechanical theory of natural selection.— The Secret Doctrine, II, 683

This also explains the fact of the "recapitulation"—that the foetal development of an animal recapitulates the prior stages in the animal kingdom. On this Le Conte says: "Surely this fact is wholly inexplicable except by the theory of derivation or evolution?" And we ask: Which way did evolution go? According to the biological view, there would seem to be a lack of purpose in this preservation of useless organs, but the purpose is obvious according to the ancient teaching.

^{*}Does not Plato in the *Timaeus* say that nails are rudimentary claws for the animals into which the deprayed soul may enter?

THE POSITION SUMMED UP

It is now time to recapitulate the above remarks. We see that the general theory of evolution is tenaciously clung to, but that there is great doubt as to the details. Popular writers assert with much confidence the validity of views which able biologists now question or reject. Professor Bateson, whom we have quoted, takes a very broad and unbiased view, admits the too hasty nature of bygone conclusions, and rests his hopes on careful and patient investigation. The existing outfit of animal and vegetable types, and the palaeontological record, show us certain results, but we fail to detect the means by which they have been produced. Experiment and observation prove that existing causes, such as come within the scrutiny of science, do not tend to produce the changes which the general theory demands, but tend merely to produce indefinite subdivisions of already-existing types. even if we knew all the steps of the process, we should still, if confined to scientific reasoning, be in the dark as to the most essential points; for we should have to accept as a primary postulate that mysterious but all-powerful entity called "life," and should thus have a picture of the universe as a sort of machine. The worst of regarding the universe as a machine is that we cannot live up to that idea, and so our science becomes academic and detached from life, while our life becomes detached from science and is left to the mercies of influences that are not understood.

THE "PURPOSE" IN EVOLUTION

Professor Bateson waxes sarcastic over what he dubs "Victorian teleological fustian." For the benefit of the uninformed, it may be explained that Victorian is the name of a period in recent history, teleology is the science of ends and purposes in the universe, and fustian is a bad kind of cloth. So the Professor means that the Victorian philosophers assumed that either the orthodox God, or that other God called "Nature," had some wise and beneficent end in view; whereas it is possible (in his opinion) that there is no such beneficent being and no such wise purpose at work at all. Other writers take the same ground. Professor Jordan, in *Footnotes of Evolution*, seems much occupied in combatting various notions of what the doctrine of evolution is, and showing what it isn't:

There is nothing "occult" in the science of evolution. It is not the product of philosophic meditation or of speculative philosophy. It is based on hard facts,

and with hard facts it must deal. It seems to me that it is not true that "Evolution is a new religion, the religion of the future." There are many definitions of religion, but evolution does not fit any of them. It is no more a religion than gravitation is.

But it is probable that people will go on believing that there are purposes in the universe, that facts are not necessarily hard and may be based on meditation, and that religion is whatever belief influences a man's life. But then we are not pinned down to a choice between hard-and-fast theological views and hard-and-fast scientific views. If we place a single God in the universe, we must surely also place a Devil, or else suppose that the God is continually frustrating his own purposes by exposing his creatures to all kinds of dangers and then beneficently providing them with means of protection. All this is got rid of by the simple theory that every creature is a more or less conscious being, endowed with a mind that may be greatly individualized or else not — in which latter case we call it "instinct." The nearest approach we can make to a comprehension of universal purposes is by studying our own; and we find that we are all trying to express in action something that is latent in us. We are all trying to fulfil our destiny and realize our possibilities. A mind is striving within us for self-realization and fuller consciousness. According to the ancient teachings, the end to which evolution is striving is the production of Man, whose destiny it is to be the most perfect manifestation of the inscrutable Divine Purpose (or atomic purpose, if the biologists prefer — it makes no difference to us).

It will be evident that the exponents of what is called the new doctrine of heredity make plentiful assumptions, crowding all potentialities upon their chromasomes and ids; and that to suppose the existence of a material substance in the egg, handed down for untold ages with all the potentialities of future development within it, is to beg the greater part of the question at issue. Beyond this, after this assumption has been made, there remains the question of a minute study of facts and processes. This has shown that certain phenomena in heredity actually do take place; but these phenomena cannot be accounted for, nor do they tend in the direction required in order to establish the doctrine of descent which the theories of evolution entail. In fact it is frankly admitted by biologists that the scheme of organic forms resembles a tree with many branches and twigs, which is the illustration we used a little above. Hence they do not hold the theory

that evolution is represented by a continuous chain of gradually progressing forms. All this goes to confirm the ancient teaching that the main line of evolution is ultra-physical, and that the forms which appear in the physical world are like switches from the main current or bunches hanging from a vine.

The ancient teachings say that there are three distinct lines of evolution all going on at the same time, all contributing to the production of that ideal manifestation of universal mind — Man. But biology recognizes only one — the physical. The other two are the Monadic (or spiritual), and the intellectual. A Monad is not easily defined, for the lack of suitable words to convey unfamiliar ideas; but it may roughly be described as an atom of consciousness. It is the vital spark which must exist in everything in Nature as the source of all energy, quality, and growth. Science is obliged to condense its effects under vague words like "energy" and "tendency." Materialism does not get beyond the physical atom, and therefore has to endow this with intelligence and vital force. It is not easy to see just what materialism is aiming at after all; but perhaps one might say that it is endeavoring to represent the universe as a mechanical process. In that case, mind and consciousness would be a sort of by-product, not necessary to the process; and we may well leave these philosophers in happy contemplation of their universe. There is an evolution or descent of the Monads, and an *involution* or ascent of forms: for the universal Mind passes into a state of latency when it enters the lowest forms of life — that is, the atoms of physical matter. In the physical atom most of the powers are latent, and only such are developed as are necessary to enable the lowly organism to fulfil its functions. In the vegetable kingdom, the form having become more elastic and adaptable, we see that the monad is now able to manifest more of its potentialities. In the animal kingdom, the consciousness has unfolded to a point where it resembles part of our own consciousness. nature unaided is not able to produce a form which will manifest the full potentialities of the monad. Thus Man cannot be evolved by this process alone. To make Man, it is necessary that Mind (the selfconscious Mind) shall be imparted; and it was the bestowal of this faculty, by Beings who already possessed it, as they themselves were the humanity of a previous cycle of evolution, that formed the connecting link between the Divine and the natural, and created the perfect flower — Man. But of this we must speak in the next lecture.