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Creative Involution

Cora Lenore Williams

"A sphere of distant glory in full view"

Creative Involution

Cora Lenore Williams, M.S.

With an introduction by
EDWIN MARKHAM

New York

Mcmxvi

Alfred A. Knopf

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Intro of
CORA LENORE WILLIAMS.

*Sometime Instructor of Mathematics,
University of California.*

Author of
AS IF: *A Philosophical Phantasy*

FOURTH-DIMENSIONAL REACHES OF
THE EXPOSITION

SYLLABUS OF PLANE GEOMETRY
INTRODUCTORY TO ABSOLUTE
GEOMETRY

THE PASSING OF EVOLUTION

PRINTED IN THE UNITED STATES OF AMERICA

To W. C. Morrow
Writer, and Maker of Writers

"In Vishnu-land what Avatar"

INTRODUCTION

BY EDWIN MARKHAM *

I

If you should suddenly hear that mankind was on the verge of recovering Lost Atlantis or on the brink of communicating with the planet Mars, wouldn't you be delightfully startled at the thought of the immense wonder about to dawn upon the world?

Now, Cora Lenore Williams, in this little volume, comes with strange testimony and prophecy of an event even more exciting, more liberating to the spirit. She announces an event that has infinite implications — an event, which, if it prove true, will do more to broaden the reaches of the mind than has any previous occurrence in recorded history.

Miss Williams is an authority in mathematics, and a seasoned student of science and philosophy; and, upon conclusions taken independently from each of these fields of thought, she builds a higher synthesis, reaches a higher law. It is a law that accounts for life as we find it and for life as we dream it — ac-

* Author of *The Man with the Hoe, and other Poems*, and *California the Wonderful*.

counts for the world of nature that we look out upon — accounts for the world of mind that we look in upon — accounts for the realm of the materialist and for the realm of the transcendentalist.

Standing upon the solid fact of Evolution, Miss Williams throws a psychic bridge across the mysterious chasm that yawns between the inorganic and the organic, and yet another bridge across the chasm between the organic and the spiritual. Her idea presumes the existence of a Fourth Dimension, a Higher Space; and she has the courage to say that man stands upon the verge of its realisation. Indeed, there are certain phenomena that can be accounted for only on the hypothesis that there is a fourth dimension, a hyperspace that is pressing constantly upon the human consciousness. Miss Williams erects this immense hypothesis and defends it with keen intelligence. It is a stimulating and startling conception.

This idea appeals to me, for I have long believed that there is a hyperspace, a four-dimensional spiritual universe. I conceive that this spiritual universe pervades our physical universe, as the spirit pervades the body. A physical space can hold a spiritual space, somewhat as water can hold air. This higher or spiritual universe is the pulsing life in all this mysterious fabric of nature.

For long thousands of years men — by the help of their senses and by the help of augmenting instru-

ments — have been exploring our three-dimensional universe, our universe limited by length, breadth and thickness. It was easy for them to conclude that they knew all the space abysses of the Cosmos. The mole may push his snout above ground, and in his blindness not see the green out-reaching globe around him and the star-filled heavens that expand prodigiously above him. So we men-moles are doubtless moving in the presence of unknown spaces and of unimagined mysteries.

Nevertheless, dim intimations of a fourth dimension of space have ever been hovering over the world of men; and many awakening minds are beginning to respond to them, even as the delicate instruments of the astronomer respond to the vibrations of a new planet that is swimming toward his lens.

Poets and prophets, stirred by intuitions from within and by inspirations from above, have ever declared that there is an invisible spiritual world, a world of the good and the true and the beautiful, a world whereof our nature-sphere is only the hint, the shell, the shadow.

But Miss Williams comes to us, basing her faith upon findings in the more exact provinces of thought. Mathematicians have long made use of the concept of a fourth dimension to visualise the formulas of algebra. Chemists and physicists are finding that the conduct of certain molecules and crystals is best explained as a fourth-dimensional activity. And for

the lack of some higher extension of space, metaphysicians fail to realise their concepts of being and becoming.

Now in a tremendous generalisation, Miss Williams seems to bring into harmony all the gropings and guessings of these many thinkers. She has reached a conclusion that appeals both to the facts of experience and to the dreams of imagination.

Indeed, the thoughts of men, in their cosmic explorations, have reached a brink that seems to make certain the existence of a stupendous invisible space beyond — not one space but many spaces, all expanding into one Infiniverse.

II

The doctrine of Evolution shook the Mid-Victorian Age to its centre. To many it seemed to be the all-sufficient and final explanation of things. But now that the shock has quieted, men begin to find that evolution does not account for the all-round process of life. For it does not account for the growth of the spirit; for its tendency to take unprofitable risks, and to struggle for ideal concerns.

Evolution seeks only the individual good; and when evolution pushes on to its ultimate in the competitive struggle, it ends in the social anarchy, ends in "the blonde beast" of Nietzsche. Evolution creates egoistic efficiency; but this efficiency comes into collision with the social or common good,

a good that seeks to raise all men to their highest efficiency.

Hence, says Miss Williams, if we would do away with this conflict, we must appeal to another law — the Law of Involution, the Law that will raise as one whole the vast body of the People. Life must be so organised, so socialised, that each human atom can find its own highest good in the Common Good.

In brief, men reach an arresting wall in their egoistic evolution, and they can go no farther on that road. To press onward, they must now accept a new law of progress — the Law of Involution. The competitive human atoms must now merge into One Atom and go forward as a unit. Competitive multitudes must merge into a Social Solidarity — all working for each and each working for all. For only in this way can the race take up a new march of evolution on a higher ground — a new march inspired by a new passion, the social passion — a new march with a new hope, the inbrothering of man and the inheavening of earth.

But the earth of our narrow vision is too cramped an arena for all the possible adventures of the human spirit. As the cell-life of the lower rounds of creation was included in the genesis of man; so Miss Williams predicts that man as a psychic being will be included in ever-higher rounds of life because of the eternal involution and evolution. Thus she weaves into one unity the material and spiritual problems

that seer and saint and scholar have glimpsed each in a way of his own. Upon this mighty pivot turns this impressive volume.

As befits a great problem reaching from infinity to infinity, Miss Williams relates her theory of Creative Involution to the large human issues of love and war and education and art. She opens long vistas, projecting a flying path from our every-day into the frontiers of the Unknown — a path that seems at times to give us a foothold in reality and to show from a height the harmony that pulses through the many confusions and contradictions of our existence.

The spirit of the book is gladdened by breezes from Hyperspace; and the large vision of it expands and squares our "three-cornered" world, which is only the surface of the four-dimensional universe. As we turn these daring pages, we seem to be caught up by cosmic currents — the eternal currents that appear to move through all things toward some higher issue, some diviner evolution.

In going over this unusual volume, I am pleased by its clear, condensed and energetic style; but I am even more pleased by its exalted ideal of the meanings and issues of our existence. It is more than a philosophy: it is an evangel, an apostolate. It is the high-hearted gospel of a thoughtful, earnest and consecrated spirit.

E. M.

West New Brighton, N. Y.,

July, 1916.

PREFACE

While we cry, "All's wrong with the world," and question if God's in His heaven, new truths knock at the portals of thought, knock and go unheeded — so intent are we upon holding to what of good we have. Sad, indeed, are the times upon which we have fallen if we come not through their anguish to larger values, more vital principles of action! What the world will require most in the day of its reconstruction is a synthesis sufficiently big to give meaning to the sorrow and suffering that humanity is now experiencing. Only thus may the dignity of the human soul be preserved.

Of the many changes passing over the face of things, that which psychological thought is undergoing is perhaps the most far-reaching in its import. Where formerly that thought interpreted consciousness in terms of past experience, it now asserts that the individual mind is to be understood only through its relation to sociological processes. As a result, the concept of the State is fast passing over from that of an efficient organization for the adjustment of individual interests to the concept of a living, growing organism for which a present good is ever

subordinate to future welfare. As the forces controlling human development shift their centers from the past to the present, the factors and laws we were wont to associate with Evolution become replaced by those of an integrative character. The individual knows himself as part of a larger life. The ages have written his biography and will write through all time! In man's increasing consciousness of unity with his fellows lies a potentiality for sense perceptions that transcend the here and now. The fourth dimension of being is imminent. The mighty crash now resounding through space is the breaking down of its walls. "The old order changeth"; would we make ready for the new we have to engender other and larger categories for our thought.

A thesis bordering as does mine on the supernatural must justify its claim to serious attention. To that end carefully selected passages from recognized authorities are placed at the close of each chapter to corroborate the points in question. My main contention: to-wit, Evolution posits Involution, finds its biological support in the work of the late H. M. Bernard, an English scientist; Mr. Bernard's investigations establish beyond question the recurrence of a rhythm in organic development.

The descriptive subtitles which form the framework, as it were, of the book are from Browning, whose great vision prophesied Involution.

Those persons who find my lead failing of the

higher spaces of my thought will be inspired to blaze the trail for themselves if they will read Mr. Claude Bragdon's "Four-Dimensional Vistas" — the classic of Hyper-Space; and should any question the wisdom of such venturing into the cold and awesome regions of mathematics, I recommend for their logical consideration a new and epoch-making book by Professor C. J. Keyser, "The Human Worth of Rigorous Thinking."

In closing, I would add that it is not the purpose of my book, as the title might imply, to advance a criticism of Mr. Bergson's philosophy, but rather to build on his thought constructively for the greater evolution to come.

CORA LENORE WILLIAMS.

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CREATIVE EVOLUTION

(After Bergson)

Out of a sense of immediacy
Comes an intuition of things forming.
Pressed up by the vital urge,
Mind meets matter and matter mind
In mutual understanding.
That which apprehends, since by the object shaped,
A fitting instrument is for what itself has wrought.
From the same stuff,
Cut by an identical process,
Thing and intellect to congruence come,
In a space-world forever unfolding.

No pre-established harmony this
Of inner to outer realm corresponding,
Nor spirit nor form by the other determined.
Stranger far the genesis whereof I speak:
From the universal flux,
In a moment that is ever unique,
Life to new consciousness springs;
Creator and created together evolve,
In a time-stream forever flowing.
(Urge of the *élan vital* we might believe it,
Did not Intuition whisper, "A Final Cause?")

CHAPTER I
THE PRESENT EVOLUTIONARY
CONFUSION

CREATIVE INVOLUTION

CHAPTER I

THE PRESENT EVOLUTIONARY CONFUSION

I

“ I SAW NO CAUSE WHY MAN SHOULD NOT STAND ALL-SUFFICIENT EVEN NOW, NOR WHY HIS ANNALS SHOULD BE FORCED TO TELL THAT ONCE THE TIDE OF LIGHT, ABOUT TO BREAK UPON THE WORLD, WAS SEALED WITHIN ITS SPRING: I WOULD HAVE HAD ONE DAY, ONE MOMENT’S SPACE, CHANGE MAN’S CONDITION, PUSH EACH SLUMBERING CLAIM OF MASTERY O’ER THE ELEMENTAL WORLD AT ONCE TO FULL MATURITY.”

In the book of the Cosmic Order, the chapter entitled “ The Evolution of Man ” is drawing to a close. Written in terms of individual achievement, its pages are fraught with vital interest for us ; but while we linger to decipher a line, to interpret a passage, another chapter is in the writing. Even while man visions himself as the end and goal of its course, Evolution is passing on to greater things,— nations and civilisations are become its concern.

We stand to-day at the meeting of two evolutionary periods — the period of the man-unit and the period of the group-unit. Evolution is not the continuous process for the development of organic life that it postulates itself. The mathematician must needs mark what the scientist has overlooked — the change in the operand. This change may not be accounted for on the basis of variation; the social unit is not the derivative of the individual unit that it displaces in the Darwinian process. Moreover, the factors making for its formation cannot be subsumed under evolution, for they are in direct opposition to the principles underlying the struggle for existence. Inasmuch as evolution has brought man to his present height, so that from a lowly origin he has come to inherit the earth, it is not to be wondered that he should think himself still the object of its solicitude. But as the struggle for existence passes from that level whereon man competes with man, to the higher level where nation contends with nation, there is manifestly a change in the unit of operation.

And because the factors making for the selective process are the same as those which a short time since governed the evolution of the individual, the world is experiencing an inversion of values. So it is that on every side we “see writ large what small” we saw in the beginnings of human development — the same crude art, the formless verse, blind impetuosity, and pitiless death struggle! Civilisation is

suffering a great retardation in order that the life-stream may be raised to the higher level whereon evolution would work its onward way. But without such an uplift, humanity would sooner or later run aground in some superman, as visioned by Nietzsche. The world strife is justified of the Evolutionary rhythm.

II

"DIM FRAGMENTS MEANT TO BE UNITED IN SOME WONDROUS WHOLE, IMPERFECT QUALITIES THROUGHOUT CREATION, SUGGESTING SOME ONE CREATURE YET TO MAKE."

Our desire to subsume all of Nature's workings under the formula of Evolution has caused us to overlook a process of vital significance to the world-order. While Nature has achieved much through the perfecting of the individual, her larger progress has come through the summing up of her activities. From the atom to the molecule, from the molecule to the crystal, from the crystal to the sphere, she has leaped on her upward way. The centripetal force has ever taken its turn with the centrifugal at the wheel of things. The passing from the homogeneous to the heterogeneous is only half the process, since the latter must pass again into the homogeneous for the accomplishing of the further diversity necessary to progress. "Organic evolution," says Professor Ritter in a recent book, "is just as fundamentally an

organising, an integrating, process as it is a differentiating process."

Alone, the individual entity, be it cell or man, can achieve little. The biological reason of this is not far to seek. There is a limit to which natural selection can carry the development of life, since it is only a question of time when an organism will lapse into a state of equilibrium with its environment. When its evolution is thus threatened there is naught to save it except a change of environmental contact, and this change must be an accumulative one since any other would destroy life. Bernard found that it is Nature's wont to meet this issue by the gradual compounding of the unit. A group comes perforce into larger contact with the external world than do its individual components. This means new adjustments; hence greater activity and more complex functioning. The stagnation which comes with equilibrium gives place to a quickening of the life impulse. Through the reconquering of the environment the composite compound becomes an articulate organism on a totally different plane from that of its constituent elements, and a new evolutionary period is inaugurated. That this period grows more complex with each successive unit testifies to the all-important part played by integration in the furtherance of the life movement.

III

“SO FAR THE SEAL IS PUT ON LIFE; ONE STAGE OF BEING COMPLETE, ONE SCHEME WOUND UP.”

So great a need has the human intellect of some all-embracing synthesis for the data of experience, that, without regard to the limits of Evolution, it has carried that conception into all fields of mental activity. The result is that Evolution holds its place as a world-theory by ignoring a wide range of phenomena — phenomena to which we as individuals attach great significance. The practice of the ethically best as demanded by the social order involves a course of conduct opposed in all respects to that which leads to a survival of the fittest. Formulated, as Evolution is, on the basis of past experience, it is unable to cope with this entirely new order of things. An hypothesis, to establish itself as a law, must give a coherent and self-consistent account of the facts. This, Evolution has not done; its solution of the problem of life, besides being incomplete, is one of confusion, both as to element and as to operation.

Whether or not our indictment against Evolution, the hypothesis of science, holds, we are certainly justified in refusing to accept it as a philosophy for all our thinking. The end that the scientist has in view in setting up his hypothesis is a mechanical determinism; quite the antithesis, I take it, the purpose of the layman in seeking a life-philosophy — that

should make above all for his freedom as an individual. I hear some one say: "What if the facts do not verify such an hypothesis?" Henri Poincaré has said that a fact may be generalised in an infinite number of ways, and it is a question of choice as to what hypothesis we take. Surely with an infinite range for our selection we may hope to find a conception that will not only co-ordinate the facts of life, but do so constructively to a larger human development.

The natural world is a sequence of cause and effect. Inasmuch as man is a creature of his environment, any philosophy in order to find objective reality must give due recognition to physical science. Not to do away, then, with Evolution as defined in terms of Darwinism, but to find an hypothesis at once inclusive of it and of all other life-phenomena, is our aim. Such an hypothesis must account for the inner as well as the outer evidence of our senses and so make place for personal liberty and its correlative, moral responsibility.

IV

"AND FROM THE GRAND RESULT A SUPPLEMENTARY REFLUX OF LIGHT ILLUSTRATES ALL THE INFERIOR GRADES, EXPLAINS EACH BACK STEP IN THE CIRCLE."

That we have not thought to include integration in our accounting for organic change is due to a pe-

culiarly of our cerebral functioning. The human intellect is strangely reluctant of the inverse process — coming to it slowly and only after long familiarity with the direct. The historical development of mathematics bears witness to this natural antipathy of the mind to reverse the order of its thinking; likewise, the pedagogical. Listen to the child as he solves his example in subtraction,—“What number added to five will make twelve?” Is it surprising, then, that concerning a process so far-reaching and complex as Evolution we have quite overlooked the inverse? But as multiplication carries with it division, so does Evolution carry with it a process which logically should be called Involution. It is the same which gave Huxley great trouble when he tried to account for human progress in terms of Darwinism.

Science, in order to give a complete account of the phenomena of life, must needs postulate, as operative with Darwinism, a process the antithesis of Darwinism both in principle and action. For the establishing of a biological continuity, as well as a logical synthesis, Evolution requires to be supplemented by its inverse, Involution; the one process necessitates the other. The attempt to explain these two processes by means of the same hypothesis has led, not only to much confusion in scientific thought, but to great retardation of that thought. Whatever laws may be set up for Evolution, there is a change of meaning in kind, sooner or later, when it comes to their appli-

cation to the phenomena of life: as witness the new Evolution for which Darwinism is "an overcome" hypothesis.¹

It takes, however, the old Evolution as well as the new to tell the story completely,² for the life-movement is not the direct current we have conceived it, but an alternating one, periodically reversing its direction. Evolution (Darwinism) accounts for one direction of the force; so far, so good. For the other, the principle of spontaneity and new beginnings, we have to set up Involution.³ Inasmuch as we have postulated Evolution for the differentiation of man, we must postulate Involution for his integration.

In the interrelation of the two is to be found that nexus for the life-chain which Evolution has not been able to forge — a nexus of sufficient strength to bridge not only the chasm between the inorganic and organic realms, but the far greater chasm between the organic and the psychical, for it is a thought nexus.

¹ FOSTER: *Finality of the Christian Religion*, pp. 234-5.

² Twofold is the life we live in —

Fate and Will together run:—

Two wheels bear life's chariot onward.

Will it move on only one?

From the Sanskrit.

³ "It is the supreme law of philosophy that involution and evolution are an eternal equation."

— JOSEPH COOK: *Boston Monday Lectures*.

CORROBORATIVE READINGS

CORROBORATIVE READINGS

"The prevailing doctrine of organic evolution presents to us a vast stream of 'cells' and 'cell colonies' jostling and struggling with one another and with the adversities of their environments; some survive and the rest are killed off. According to a law of Natural Selection, only the fittest survive.

"No one who has any knowledge of the facts doubts that this description of evolution is in the main correct, but it is far too vague. What are cells? and what are cell-colonies? What is the relation between them? are they all hurrying on in a stream?—toward what end? Whence did they come? Is it an independent rush?—a great fountain of life obeying its own inner laws? . . .

"These are some of the problems that confront the present doctrine of organic evolution. We have passed the stage of triumph over the discovery and now, after fifty years, stand on the brink of the stream, conscious of a deepening ignorance. What we most need is to be able to read some clear and intelligible order into the stream; such an order, if we could only find it, would surely, in time, reveal to us some of the fundamental laws of life.

"It is such an order, I venture to think, that has gradually dawned upon my mind during twenty years spent in several distinct lines of biological research. While pursuing each of these separate paths, I seemed again and again to catch a glimpse of an evolutionary truth wider than any as yet apprehended, and these glimpses, when compared, were found to be merely dif-

ferent aspects of the same great law. Considered in the light of this law, the evolution of organic life breaks up into a series of periods, each advancing according to a fixed formula, and this periodical progression seems to me to claim a place among the vast cosmic rhythms which have in all ages fascinated the minds of philosophers. . . .

“Having thus come upon traces of three consecutive units of structure, the chromidial unit, the cell and the polyp or, as it will be called later on, the gastræal unit, each in turn yielding new organisms of a type higher than its own, the idea naturally occurred to me that other higher units might be discovered by the help of which we might be able to analyse the higher and more complicated organisms more satisfactorily than by the cell. It appeared, indeed, as if morphology might have been befogged by the universal custom of analysing all organisms by the cell alone, and that the progress of the science of life might have been retarded in consequence of our restricting ourselves almost entirely to accumulating facts and working with a conception of the cell which requires emendation. Reviewing animal forms with the object of finding traces of such units, I was able to reconstruct synthetically two more, the annelidan and the vertebrate, and thus to form a series of five distinct units of structure. . . .

“Organic life is thus seen advancing out of the dim past upon a series of waves, each of which can be scanned in detail until we come to that one on which we ourselves, the organisms of to-day, and the human societies to which we belong are swept onward. Here we must necessarily pause, but can we doubt that the great organic rhythm which has brought life so far, will carry it on to still greater heights in the unknown future? . . .

"My scheme does not in any way discard the present doctrine of descent, on the contrary it includes it; neither does it deny the cell doctrine, although it modifies it. It is chiefly in the stress it lays upon colony formation, a factor well known to the morphologist but never yet accorded its full value by the evolutionist, that it differs from all former schemes. Colony formation, by periodically complicating the approaches to harmony between organic life and its planetary environment brought about by natural selection, is shown to be the chief constructive factor in organic evolution,—the great force which starts period after period of a great evolutionary rhythm. In this way the modern view is transformed in an almost startling manner."

— H. M. BERNARD: *Some Neglected Factors in Evolution*, pp. 271-7.

"Let any one ask himself why he is present at a certain lecture. If he gives the answer in terms of the Past, in terms of push, in terms of matter or of mass and motion, all of which expressions are equivalent, then he has no choice. Let him begin the statement where he may, at 7 o'clock or 6 or 5 or 4, or a day or a month or a year or a millennium in the past, it is all one; he must describe himself and all his antecedents as pieces of machinery, in fact as automata, in which each state of motion has followed with iron rigour and necessity upon the preceding; he must say that the molecular whirlwind called his brain determined certain quiverings of his efferent nerves, and that these quivers fell upon certain muscles and determined certain contractions and relaxations and consequent motions that finally landed him upon the chair occupied. Such is the present word, such must be the last word, of physical science, and it is a most ex-

cellent one, eagerly demanded, and quite indispensable to any perfect and final explanation. But every one perceives that such a statement, such a deduction of the Present from the Past, however accurate, is and always has been and always will be in all generations incurably lopsided and inadequate. For it states at most and at best only the concatenated antecedents, the material *causes* of the man's presence there; it says not one word about the *grounds* or *reasons* therefor. It answers perfectly the question *how*, but it is absolutely dumb with regard to the weightier question *why*? Now it is precisely this question *why* that every man puts and must put, and no man can be satisfied till it is answered. Moreover, it is a matter of immediate knowledge, as primary as primary can be, that no possible assignment of causes, of antecedent conditions, can ever satisfy the questioner, who is seeking for reasons and not causes. Still further, observe that the only satisfying answer will be in terms of the Future, and not of the Past. The man will say: 'I desire to hear and see something or somebody.' At each instant the desire was a present experience, but the thing desired was and remains from first to last in the Future. At the start he desired to hear the beginning, then he was eager to hear the middle, and finally became impatient to hear the end. When he heard that, he straightway heaved a sigh of relief and hastened home. Once and always his desire is still ahead and beckons him on from instant to instant. It is a voice crying out forever from the bosom of the flying hours. It is the call of the time to come. It is a tug from before, not a thrust from behind; it is the pull of the Future, not the push of the Past. . . . On the side of matter, of cause and effect, the universe is one immeasurable Memory. On the side of mind, of purpose and aim, it is one unbounded Hope. . . .

"It may be — indeed, it certainly is — incomparably more difficult to construe the universe as a system of reason and purpose than as a system of cause and effect, nevertheless we cannot finally evade the task, and surely it is noble and inspiring beyond measure. Unto this task it is that the twentieth century is invited, and 'along the line of limitless desires.' It is in fact an awakening to a new and higher form of self-knowledge than Spirit has hitherto attained, a distincter recognition of the Future as the matrix of the Present, a pursuit more conscious than ever before of the flying goal of history. We dare reverse the homely aphorism of Goethe and affirm that, without abandoning the causal view of the Past, we must turn to the teleological view of the Future, we must seek to understand the total present as a system of living and striving instincts where instinct itself in Hartmann's phrase 'is the (conscious) choice of means towards an end unconsciously chosen.' So then it is the end, the aim, that rises before us as guiding star in this twentieth century interpretation of history, yea, we may indeed proclaim, 'The Kingdom of Ends is drawn nigh.'"

— W. B. SMITH; *The Monist*, January, 1913.

CHAPTER II
THE EVOLUTIONARY RHYTHM

CHAPTER II

THE EVOLUTIONARY RHYTHM

I

“AND ANOTHER WOULD MOUNT AND MARCH, LIKE THE EXCELLENT MINION HE WAS, AY ANOTHER AND YET ANOTHER, ONE CROWD BUT WITH MANY A CREST, RAISING MY RAMPIRED WALLS OF GOLD AS TRANSPARENT AS GLASS.”

The Chromidia were a most inferior order of beings, if viewed at the close range wherewith science would blind us to the truth, but given the historical perspective necessary to clear visioning, a Chromid was a very superior person. Indeed, if considered in the light of what he did, none greater ever lived. To what elements of character he owed this superiority, I know not. There is evidence pointing to a strong moral sense combined with a great love of the beautiful. A spirit of harmony there certainly was, for in some mysterious way this people (minute granules to the eyes of the biologists) formed well-ordered states. These, the Protista, were possessed of central gov-

ernments, nuclei so-called, from which radiated network and filament for quick response to external impact,— the present military system in embryo, as it were. The loyalty of the Chromidia to their governments was most marked; never were a people more

“eager to do and die, yield each his place to the rest” in the common cause. And because of this national spirit the Protista grew in size and strength and soon were able to surround themselves with protective walls which, despite the many æons that have elapsed, are still standing, hence rivalling the old Roman ones. They also established magazines for the storage of surplus energy, apparently divining the long struggle ahead of them. Oddly enough, these magazines were placed in positions of unstable equilibrium so that the energies of the reactions came into play only when this equilibrium was disturbed. The historian will readily see in this device the origin of the mines which to-day perilize our seas. While no record of their wars is extant, we may be certain they were victorious, for the Protista succeeded in time in colonising the entire habitable surface of the globe.

And so it was that the Chromid created beyond itself, even to the protoplasmic cell! And now my story is begun.

Spencer would have said that what happened next was due to the gravitating tendency within homogeneous masses, but since the Protista might easily

have been passed over by the same generalisation, it would, I think, be safe to look into the matter.

Some of the Protoplasmic peoples,—or cells, if you are scientifically minded,—settled down to equilibrium, where they may be found to-day still enjoying life at its fountain-head. Some perished in the life-struggle, but others, falling upon a variable environment and being much put to it, learned to make slight changes in their structure. It was this very adaptability to meet the exigencies of life which I believe caused them to cling together as they did, for it goes without saying that the more highly specialised an individual is, the greater the need he has of his fellows, and especially does he miss the sense of all-roundness if he is a cell. And since we find great numbers of the Protista forming organisations for the maintenance of life, we must infer an economic pressure. Do not mistake me; these unions, or Metaplasts, were far more than mere trade-guilds. It is hard to say what the principle of association was which bridged over their original separateness so as to effect the organic unity that was manifest in their functioning toward one another and the external world generally. One individual became modified in one way, another in another, as if inspired by some inexplicable instinct of harmony for the forming of a higher being. Hence it is only in a limited sense that the individuals of this multicellular compound are to be regarded as co-operating units; rather were

they local centres of a formative power pervading the mass as a whole.

It is to be noted that the above process making for the essential unity of the Metaplast was the same the Chromid had used; with this advance, though, that the response was greater and the co-ordination more perfect. So we can but conclude that the life-impulse felt itself caught up into a higher rhythm, however much the elements which stood out for individualism may have decried the union-spirit. And since might has ever made right, the world became conquered anew. But even at that early day history knew to repeat itself. Consequently we find the Metaplast, although a people vastly superior to the Chromidia, settling down to commercialism after the manner of these. And peace would doubtless have been a permanent possibility if it had not been that the struggle for existence was fast becoming an evolutionary factor. I might say in explanation that, no Malthus having arisen to give warning of the dangers of rapid multiplication, the population was increasing in geometrical ratio. In view of this, the competition for commercial supremacy which sprang up among different states is not at all surprising. The contest at last narrowed down to two peoples, strange to say both of the same branch, and it is a question which would have won had not the Gastrea (the one more closely resembling the primitive stock) become possessed of some higher vision.

And the third time the world awoke to a tremendous outburst of energy. But while the realisation of it was sudden, the process itself had been a slow one. It was no less than the mobilisation of vast homogeneous masses of the Gastrea, resulting in the formation of Annelids, best described, I think, as armies, for unlike their predecessors they were linear in shape, with the controlling force at the anterior end. With their dominance a new period of *Kultur* arose.

Surely now Evolution is in sight of its goal. Ah, no, for again life is caught up by the evolutionary rhythm, and the formula for the making of a communal soul is repeated. We see the same clustering, fusing and centralising of unit organs in the striving for a "conscience more divine"; life swings to a still higher level through the righteousness of its purpose. And so "up, the pinnaced glory reached" to man.¹

Four evolutionary periods do not go far, it will be said, toward establishing a scientific induction. But rhythms are very apt to have a mathematical basis, and the evolutionary one is no exception. There is a method known to Algebra as the theory of groups. A group is made up of a set of operations or transformations such that a combination of any two of them yields an operation or transformation belonging to the set. Any property or quality that is left unaltered by all the transformations in the group is

¹ ". . . and the same Spirit, ever one God, world without end. Amen."

said to be an invariant under the group. Bernard's investigations in organic development show the persistence of a group as thus defined by Algebra, provided we take for our set of operations all possible entities resulting from the time-process. For such a group, differentiation necessitates integration, and vice versa, hence the life-rhythm is an unending one.²

II

“FOR THESE THINGS TEND STILL UPWARD, PROGRESS IS THE LAW OF LIFE, MAN IS NOT MAN AS YET.”

Along with the tendency to form different personalities, goes the tendency for these personalities to form larger centres of action. The first, the differentiating tendency, has been fully accounted for by the theory of evolution; the second, the integrating tendency, demands an inverse process which logically must be called involution.

A true individuality is to be acquired only through certain unique inter-actions with the whole realm of being. The environment is not uniform for even the

² The forms of life together constitute a progressive series, a series which can reveal to us the evolution of the animal and vegetable kingdoms, a series which we have to learn to read, for it is the history of life. It contains the secret of our being, of our past and our future, and although, on its purely physical side, it tells us only of the physical frame, psychical existence will be found reflected in it as in a mirror.

—H. M. BERNARD: *Some Neglected Factors in Evolution*, p. xi.

smallest organism, and for no two organisms is there the same identical contact with the external world. In the equilibration of forces that sets in as a consequence of the varying strains and stresses between outer and inner media, different functionings with resulting characteristics follow. The individualising of the creature starts with its response to the environment. All growth makes for larger contact and greater instability with respect to the environment, resulting in progressively more complex functioning and higher mechanism. When the inter-relations between the organism and its external world of fellow creatures and inorganic force have attained their highest potentiality, the individuality is then perfected. This happens, as is manifest, when the integration is complete. On the other hand, the integration is complete because the creature has taken its particular place in the whole. Our theorem might be stated thus: Each has to that extent a place in the larger whole that he has realised himself; and conversely, he has realised himself to the extent that his relations with the whole are perfected.

While the struggle for existence has led to a combining for mutual help and protection, it has been a secondary factor only in the socialising process, the fundamental one being the need that the individual has for the larger activity, the fuller life which social organisation alone makes possible. Manifestly the factors of integration are not to be ascribed to evolu-

tion, for they work in direct opposition to the principle underlying the struggle for existence. The mutual incompatibility of altruism and natural selection goes without saying. Darwinism is in no sense socialistic. Powerful though the searchlight is which evolution has thrown across the Great Sea of Life, it has illumined but one phase of the billows.³

³ How absolutely universal is the extent, and at the same time how completely subordinate the significance, of the mission which mechanism has to fulfill in the structure of the world.

— LOTZE.

CORROBORATIVE READINGS

CORROBORATIVE READINGS

"In the beginning, . . . were beings three dimensional, yes, even more, with full plentitude of dimensions and every power, faculty, quality, living a blessed life, with all that heart or mind could desire. But they were small. Small in a vast Universe. As a little family living on a hillside have love and song and joy, all happiness, and contentment, yet to keep and preserve their happiness and joy, they must turn and labour to conquer the floods, the inclemencies of the seasons, the dangers of nature, so these glorious beings, because they were small in a vast Universe, had to meet danger and difficulty. The efforts of each by himself were minute and inefficacious, therefore they combined together, united their efforts, made organisms which in the perfection of their action and the precision and perfection with which they carried out their functions became not mere compound bodies, but new individuals. Each of these individuals by the mere fact of its existence, each, simply by being put on the scene, meant the safeguarding, the protection, the insurance of the happy noble life of its constituents and makers. And each in turn, in virtue of its completeness and perfectness, entered as an individual on a life of new experience, new meaning, new danger. For round these new beings, new individuals, stretched the vast Universe. The day of danger was not over, it loomed different. The task of organisation was not over, it had but assumed different proportions, demanded different means. Then from the life within, from the happy life within, full of all powers, all activities, there came the

thought, the design, the ingenious perception, the recognition of principles which gave the new individual the capacity for meeting these new, strange, greater dangers.

"And thus cycle after cycle, effort and achievement went on. Ever the organisms, perfect, happy, leading a blessed life, which were the completion of one stage of effort, were themselves small, insignificant, exposed to danger in a vast Universe. . . .

"And, said the Unaeans, our bodies are one stage in this ever expanding act of protection. The process of evolution is a one way process, it lasts forever, it is the conquest of the large by the small. Within the body are processes surpassing those that the skill of man can devise. Within is an intelligence of corresponding degree, and corresponding to the perfection of function an inner happiness which the body exists to protect. But men themselves are small and in the vast Universe must combine together for protection, must make bodies in whose power of co-ordinated action, the power of co-ordinated action of a single individual is repeated. In the duty and valour and faithfulness of the individual lies the coherence of the Nation, it but exists as a mere organism in virtue of a higher order of action on the part of the individuals composing it. And thus it is in virtue of powers, emotions, characteristics far higher than those he is conscious of in his individual existence, that an individual comes to be. As he makes, so is he made.

"So much for their mythology."

—C. H. HINTON: *An Episode of Flatland*, pp. 176-8.

. . . "Through the words, lines and verses runs the simple inspiration which is the whole poem. So, among the dissociated individuals, one life goes on moving: everywhere the tendency to individualise is opposed and

at the same time completed by an antagonistic and complementary tendency to associate, as if the manifold unity of life, drawn in the direction of multiplicity, made so much the more effort to withdraw itself on to itself. A part is no sooner detached than it tends to reunite itself, if not to all the rest, at least to what is nearest to it. Hence, throughout the whole realm of life, a balancing between individuation and association. Individuals join together into a society; but the society, as soon as formed, tends to melt the associated individuals into a new organism, so as to become itself an individual, able in its turn to be part and parcel of a new association. . . . Thus, in rudimentary organisms consisting of a single cell, we already find that the apparent individuality of the whole is the composition of an *undefined* number of potential individualities potentially associated. But, from top to bottom of the series of living beings, the same law is manifested. And it is this that we express when we say that unity and multiplicity are categories of inert matter, that the vital impetus is neither pure unity nor pure multiplicity, and that if the matter to which it communicates itself compels it to choose one of the two, its choice will never be definitive: it will leap from one to the other indefinitely. The evolution of life in the double direction of individuality and association has therefore nothing accidental about it: it is due to the very nature of life."

— BERGSON: *Creative Evolution*, pp. 258-61.

"A conscious society — or a society — is constituted, then, by the fact that each of a number of individuals holds a point of view which includes and is at the same time perfectly distinct from the point of view of each other. In other words, society is constituted by mutual

understanding. No mere interaction will constitute a social relation. Nor yet an interaction of otherwise self-conscious agents. Not merely must each agent know himself, he must know the other. Not merely must his behaviour produce an effect upon them, he must produce this effect consciously. Nor is it sufficient that he consciously acts upon them; he must have their conscious response; and they, again, must know from him that their response is received. Unless there be on both sides a perfect consciousness of self and of other, and of the relations of self and other — in a word, a perfect mutual understanding — there will be, so far, no completely social relation. A social relation is a self-conscious relation.

“All this follows, as you will see, directly from the conception of the conscious individual. A relation of ideas is itself an idea,—never a mere relation, but an idea of relation. This is the only relation that ideas can be conceived to have. It is admittedly absurd to say that one idea lies north or south of another; it should be equally absurd to say that one is later than another. For ideas as such are related, not temporally, but logically, as expression of one inclusive conscious meaning. Apart from this idea of relation the different chapters of a book, for example, are related only as so many facts of paper and ink. So of any group of men. The fact of spatial congregation expresses truly enough the relation of their physical bodies, but except as they are aware of themselves as a group they have, as ideas, or minds, or persons, no relation whatever. On the other hand, it is by virtue of this idea of relation that each of the individuals knows himself as himself and no one else. For, as already noted, an idea can know itself, can have a meaning of its own, only by contact with other ideas.

" Yet by no means may it be concluded from this that the individual is ' the product of the social order.' For, apart from the irrelevance of the term ' product,' it should be remembered that the social order — that social situation by contrast to which the individual knows himself — is never prior to the individual but contemporaneous. And for him it is created and characterised by the very process of definition in which he defines and asserts himself. . . . So far as the unity in question is a self-conscious unity, this can mean only, according to our definition, that each member has come to an understanding with each and every other on the basis of a mutual recognition of personal ends. This will mean that by contrast with each and every other he has defined himself. His individuality must then be quite as rich in content as that of the group itself. His ends must be equally significant. And as we shall see presently, he will be enabled, through just this conscious social relation, to follow his own ends in individual freedom while fulfilling his obligation to the group.

" Such being the social consciousness, we may now see what is meant by ' an increasing social consciousness.' In the individual, we have seen, an increase of consciousness means that the point of view of each moment has come to cover a wider range of his individual life. More and more he has ceased to live solely in the present and each present now includes a wider range of his life in other times and places. In like manner society may be said to grow in consciousness so far as each individual forms personal relations, and comes to terms of understanding, with a wider range of his fellows. And thus, once more, we see that every increase of social consciousness involves an increasing self-consciousness in the individuals concerned. For each new acquaintance that

you make, and each step toward a more intimate acquaintance, means for you a fresh act of comparison, and a new distinction, in the creation of which you give a new character to yourself and thus arrive at an intenser and clearer self-consciousness. At the same time the consciousness of mutual relations is intensified and made clearer throughout your social group."

— WARNER FITE: *Individualism*, pp. 100, 103.

CHAPTER III
THE LIFE-SPIRAL

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THE LIFE-SPIRAL

I

“ARMIES OF ANGELS THAT SOAR, LEGIONS OF DEMONS THAT LURK.”

Man includes, in his genesis, the cell-life below him; are there higher entities likewise inclusive of him? *Zeitgeist*, mob-mind, class spirit may well be more than metaphors. We seek to breathe a spiritual meaning into the material forms of the old mythologies; rather we should seek to know the spiritual entities of our own thought-cosmos.

The social pressure about us is enormous. The supremacy of the self is constantly threatened, not only by uprisings in the subconscious part of the realm, but by the domination of new powers from its supra-conscious borders.¹ Long-suppressed, forgotten elements within would combine with unknown, mythical creatures from without for its complete

¹ “To any man there may come at times a consciousness that there blows, through all the articulations of his body, the wind of a spirit not wholly his; that his mind rebels; that another girds him and carries him whither he would not.”

— STEVENSON.

overthrow. While it is a question how much the individual mind should fall back upon the collective one out of which it has risen to self-recognition, it is a still greater question to what extent it should relegate its power to the forming of higher complexes of thought-activity.

In the course of any development there may be movement which is not toward the highest goal; that which to-day lies in the line of our potentialities, may, by the misdirected effort of to-morrow, be lost forever. The monkey can never attain the pinnacle now occupied by man, though for his progenitors, some æons back, that height was a possibility. That is not progress, whatsoever advance it may mark, which does not leave the way open to further attainment. The evolutionary road had its collateral branches as well as its main line; there are doubtless many ways that one may go astray on the involution road. The vegetable kingdom stands a monument to that very error. The integration of the social insects has seemingly reached its goal. While the groups have differentiated to a certain extent, there is no apparent involution. As an instance of the same sort among men, the caste system of India has not tended to national growth. These group involutes were based on so low a degree of individualisation that there has not been impetus sufficient to carry them beyond a slight variation.

The problem of socialism for us to-day is the

problem that has confronted the structural unit in every development serial with our own, howsoever remote the period. It comes to us in a somewhat different form perhaps from that which it assumed for the polyp in the ages past; but, from a biological point of view, the question at issue is the same: namely, collective versus individual consciousness.

Nature's one increasing purpose through all her creatures is the forming of an ever higher type of consciousness. We cannot assert that purpose to culminate in man. There may be, as Shaler says, system within system of individualities in indefinite extension into the infinite of the minute as into the infinite of the great. Our senses enable us to perceive but a small range of the gamut of sight and sound; it were strange if we were not likewise limited in our perception of life.²

II

"UP, THE PINNACLED GLORY REACHED, AND THE PRIDE OF MY SOUL WAS IN SIGHT."

A coherent involution must then have for its formation an impelling and self-developing purpose.

² "For I am persuaded, that neither death, nor life, nor angels, nor principalities, nor powers, nor things present, nor things to come,

"Nor height, nor depth, nor any other creature, shall be able to separate us from the love of God, which is in Christ Jesus our Lord."

— ROMANS viii.

It is not the resultant of physio-chemical forces, but of the directing idea behind them. The inward life of ideals, the purposes, the loyalties, of the component elements, determine the outward life of forms, customs and institutions of the larger unit. Through the realisation of individuality on the part of its elements, is established the form of that organic unity which is the end of the involution. Herein lies the strongest argument to be found for the desirability of democratic over other institutions.

For the hypothesis of involution, personality is a creative purpose, acting through a hierarchal series to the end that the series shall attain the unity of a synthetic whole. Being is not something complete and static, and therefore separate from matter, but is a process of becoming. Matter and concept are relative terms, neither of which may exist without the other. Matter is the involutionary process looked at from the side of potentiality — of that which is as yet unrealised, but which has the possibility of the unification. Form, or the concept, is the same process seen from the side of actuality — the unification realised; it is the inner purpose or idea expressing itself concretely in material form. The transition from the potential, the differentiated, to the actual, the integrated, is involution.

Being, therefore, for involution, as for Aristotle, is not something apart from the phenomenal world, but is its entelechy — a possibility made real, the

potential actualised. For involution also, as for Aristotle, the idea and the matter may be in a way distinct in that the idea is not complete; that is, the purpose is not known to the self.³ The involute, in that case, is subject to disintegration. Matter and form are one: the unit, or element, is matter to what lies above it in the scale; the complex, or integrand, is form to what lies below it. This leads to a graded series of entities necessitating the time-process for their culmination.

That which seems reality to us now, will lapse again into appearance; truth into error; perfection into imperfection; to integrate again into higher forms.

³ Before the point was mooted "What is God?"

No savage man inquired "What am myself?"

—BROWNING.

CORROBORATIVE READINGS

CORROBORATIVE READINGS

"Is our whole instinctive belief in higher presences, our persistent inner turning towards divine companionship, to count for nothing? . . .

"First, you and I, just as we are in this room; and the moment we get below that surface, the unutterable absolute itself! Doesn't this show a singularly indigent imagination? Isn't this brave universe made on a richer pattern, with room in it, for a long hierarchy of beings? . . .

"Every bit of us at every moment is part and parcel of a wider self, it quivers along various radii like the wind-rose on a compass, and the actual in it is continuously one with possibles not yet in our present sight. And just as we are co-conscious with our own momentary margin, may not we ourselves form the margin of some more really central self in things which is co-conscious with the whole of us? May not you and I be confluent in a higher consciousness, and confluently active there, though we now know it not? . . . The drift of all the evidence we have seems to me to sweep us very strongly towards the belief in some form of superhuman life with which we may, unknown to ourselves, be co-conscious. We may be in the universe as dogs and cats are in our libraries, seeing the books and hearing the conversation, but having no inkling of the meaning of it all."

— WILLIAM JAMES: *A Pluralistic Universe*.

THE PLAINT OF THE SICK SELF IN ISOLATION

Back to the life-form! Unify! Unify!
 Wed thy soul to the Purpose universal;
 Deeply feel toward the well-spring of harmony;
 Upward live, and be glad. Trust, and cringe not.

Soul that is self-bound, turn from the darkness;
 Sick is the lone life, the Whole shall befriend thee.
 Live toward the vastness. Be glad. Trust, and cringe
 not.

Fainting, or failing, all effort is God-ward;
 Under and over thee strives the Eternal.

— JAMES A. MACKERETH.

“Under a sheer evolutionary account of man, the world of real persons, the world of individual responsibility with its harmony of spontaneous dutifulness, disappears. . . . The causality of self-consciousness — the causality that creates and incessantly re-creates in the light of its own Idea, and by the attraction of it as an ideal originating in the self-consciousness purely — is the only complete causality, because it is the only form of being that is unqualifiedly free. . . . The conception of evolution is founded at last and essentially in the conception of Progress: but this conception has no meaning at all except in the light of a goal; there can be no goal unless there is a Beyond for everything actual; and there is no such Beyond except through a spontaneous ideal. . . .

“Not the solitary God, but the whole World of Spirits including God, and united through recognition of him, is the real ‘Prime Mover’ of which since the culmination of Greek philosophy we have heard so much. Its one-

ness is not that of a single inflexible Unit, leaving no room for freedom in the many, for a many that is really many, but is the oneness of uniting harmony, of spontaneous co-operation, in which every member, from inner initiative, from native contemplation of the same Ideal, joins in moving all things changeable toward the common goal."

— G. H. HOWISON: *The Limits of Evolution.*

CHAPTER IV

THE WAR JUSTIFIED BY THE EVOLU- TIONARY RHYTHM

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THE WAR JUSTIFIED BY THE EVOLUTIONARY RHYTHM

I

“SPIRITS, HIGH-DOWERED BUT LIMITED AND VEXED
BY A DIVIDED AND DELUSIVE AIM.”

Before the individual knows it, he is involved in a complex which usurps his place in the scheme of things. His social wants grow apace with his individualisation. The more highly specialised he becomes, the greater his dependence on others. His interests are closely interwoven with the interests of the aggregate; likewise his activities. There is an exaltation to be had from forming part of a mighty whole; few can resist the pleasure of the larger life-throb that comes with being one of many. Almost imperceptibly is man drawn into the vortex of the new unit — the social body.

But while the development of the individual is largely dependent upon that of the social unit, it is not one with the development of that unit. A state may desire that a general mean of knowledge be spread among its people, but it does not look with

favour on independent judgment, nor on the scruples of individual conscience; it wants obedience, and not criticism; self-restraint, not self-assertion. The growth of the individual in that which is most peculiar and distinctive in him was what made the political unity of Greece impossible. In its spirit of individual self-abnegation lies the political strength of modern Japan. Although a society has the strongest interest in educating, training and organising the powers of its members, that interest is in no wise concerned with the welfare of the individual and may be quite opposed to it.

So nearly complete did man's conquest of the physical world seem prior to the beginning of the war, that humanity had come to look to thoughts and aspirations for the integration essential to its higher evolution. Strange to say, it was Rudolph Eucken, Germany's foremost philosopher, who was the chief exponent of such spiritual compounding. A glance backward over the life-movement shows how unfounded was this hope; it is clear that from the biological point of view the idea exists, as Aristotle had it, in the world of matter and not apart from it. We have to recognise that a true involution — that is, one making for the manifestation of a higher consciousness — requires a material good, as well as a spiritual one, for the basis of co-ordination. Otherwise it must needs project its spiritual hierarchy into some realm beyond our mor-

tal ken, after the manner of religions generally. To him who questions this need of a material good as the basis of involution, I instance the phenomenal spread of Christian Science. What with the increase of cosmopolitanism and liberality of thought in matters of religion, the day has long passed for a purely spiritual union. A person who can worship with every belief, worships with none. The God of the involute is ever a jealous God, having no other gods before him, and his people are a chosen people.

While the ties of race, language and social traditions are strong for the binding of the socius, the ties of a common work are still more impelling. There is an organising quality appertaining thereto not to be found in other mutualities. And furthered as industrial involution is by patriotic sentiment and common legislation, the lines of demarcation for the human aggregate fall naturally along state boundaries.

But wherefore any segregating at all? The spirit of Christianity is that of a universal brotherhood. Why not one body for all peoples? Debarred from actual knowledge as we are by our position in the life-sequence, we cannot do better than to assume the same personal idealism for that higher level of being as for our own. And once we grant a self-defining consciousness to the State, we have postulated a society of beings like unto it; its reality carries theirs. The oneness of a world at peace is not

to be achieved through the doing away with natural boundaries, but has to come through the harmony of many nations joined in "native contemplation of the same ideal." And first these have to attain to self-definition through struggle and conflict, for such is the evolution of the moral order, whatever the elements constituting it.

II

"A SHADOW MOCKING A REALITY WHOSE TRUTH AVAILS NOT WHOLLY TO DISPERSE THE FLITTING MIMIC CALLED UP BY ITSELF, AND SO REMAINS PERPLEXED AND NIGH PUT OUT BY ITS FANTASTIC FELLOW'S WAVERING GLEAM."

The Great War has been ascribed to the failure of Christianity; it were truer to say, paradoxical as it may seem, that this war could not have come about unless Christianity had succeeded of its purpose. That national integrity obtains in the present cataclysm denotes a higher degree of self-abnegation and personal sacrifice than the world has hitherto known. A loyalty sufficiently powerful to inspire great masses of individuals to give their lives without hope of personal gain or sense of national wrong, must needs be imbued with the spirit of a religious movement. Such unity of action as we are witnessing is possible only if the community of feeling is that of Christian brotherhood. The patriotism of

French and German soldier alike is ascribable only to consciousness of contact with some higher being. Characterised as no previous conflict has been by the sudden awakening of the individual to something above and beyond himself, the war now waging is a religious war in the deepest sense — and this because Christianity has raised man to the perception of a life beyond self.

Religion has throughout history been the amalgamating principle in the building up and maintenance of national character. Indeed, the superiority of Christianity over other religions is best attested by the fact that the Christian era is marked as no other has been by the rise and growth of many nations. The Fatherhood of God and the brotherhood of man, the giving of self, are manifestly factors making for integration; and it is to these, in the last analysis, that the superhuman entities now contending with one another for the survival of the fittest owe their existence. Christ's mission was to bring to man the knowledge of a higher life. His teachings make it most clear that the way to this life is through social cohesion — "When (even) two or three are gathered together in my name there am I in the midst of them." In the light of this, who shall say that the Lord of Hosts is not with each and every nation that goes forth to battle calling on His name? Certain it is that the community of spirit basic to an efficient state organisation, to say

nothing of the sense of oneness obtaining from military discipline, is creative of a national over-soul or consciousness. We have to regard the years of its peace as constituting for a nation its period of spiritual gestation. Men had long to dwell together in Christian amity before they could know that it is "Ourself, not ourselves, that makes for righteousness." Because the time is now ripe for the manifestation of these super-personal entities which we call nations is proof conclusive that the mission of the Galilean is accomplished.

And in that day there will be war and rumours of war, for it is only through a common peril that all the citizens of a state may be brought to the joy of unity. War offers as naught else the supreme moment for the transcending of self. Socialist and suffragette witness to the fact that individual differences are quickly forgotten in the identity of its purpose. Is war then the consequent of religion? Yes,—if our vision be limited to the historical range; but given the whole life-spiral we see that differentiation and integration function together for the upward movement, and the struggle for existence characterises the one, as altruism the other. But if war is the consequent of religion, religion is the consequent of war—such is their serial order in our experiencing. We have to remember that these superhuman entities we call nations must submit in their turn to a competition for survival of the fit-

test. And because reason is not only generated by involution, but is the necessary condition of progress through it, international adjustment will come in its own good time.¹

¹“O God, the Creator and Preserver of all mankind, we humbly beseech Thee for all sorts and conditions of men; that Thou wouldest be pleased to make Thy ways known unto them; Thy saving health unto all nations. . . . Amen.”

CORROBORATIVE READINGS

CORROBORATIVE READINGS

“Somewhere there are still peoples and herds, but not with us, my brethren: with us there are states.

“The state? What is that? Well, now open your ears, for now I deliver my sentence on the death of peoples.

“The state is called the coldest of all cold monsters. And coldly it lieth; and this lie creepeth out of its mouth: ‘I, the state, am the people.’

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“Far too many are born: for the superfluous the state was invented.

“Behold, behold, how it allureth them, the much-too-many! How it devoureth, cheweth, and masticateth them!

“‘On earth there is nothing greater than I; God’s regulating finger am I,’ thus the monster howleth. And not only those with long ears and short sight sink upon their knees!

“Alas, even within you, ye great souls, the state whispereth its gloomy lies! Alas! it findeth out the rich hearts which are eager to squander themselves!

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“It will give *you* anything if *you* adore it, the new idol: thus it buyeth for itself the splendour of your virtue and the glance of your proud eyes.

“With you the state will bait the hook for the much-too-many! Ay, a piece of hellish machinery was in-

vented then, a horse of death, rattling in the attire of godlike honours!

"Ay, this death of many was invented then, death which praiseth itself as life: verily, a welcome service unto all preachers of death!"

Thus spake Zarathustra.

— NIETZSCHE.

"In speaking at such a moment of the community of mankind viewed simply as an ideal of the future, there are two matters which, as I believe, we ought to bear in mind. First: its members will not be merely individual human beings, nor yet mere collections or masses of human beings, however vast, but communities of some sort, communities such as, at any stage of civilisation in which the great community is to be raised to some higher level of organisation, already exist. Ethical individualism has been, in the past, one great foe of the great community. Ethical individualism, whether it takes the form of democracy or of the irresponsible search on the part of individuals for private happiness or for any other merely individual good, will never save mankind. Equally useless, however, for the attainment of humanity's great end would be any form of mere ethical collectivism, that is, any view which regarded the good of mankind as something which masses or crowds or disorganised collections of men should win. . . .

"The detached individual is an essentially lost being. That ethical truth lies at the basis of the Pauline doctrine of original sin. It lies also at the basis of the pessimism with which the ancient southern Buddhism of the original founder of that faith, Gotama Buddha, viewed the life of man. The essence of the life of the detached individual is, as Gotama Buddha said, an un-

quenchable desire for bliss, a desire which 'hastens to enjoyment, and in enjoyment pines to feel desire.' Train such a detached individual by some form of highly civilised cultivation, and you merely show him what Paul called 'the law.' The law thus shown he hereupon finds to be in opposition to his self-will. Sin, as the Pauline phrase has it, 'revives.'

"The individual, brought by his very cultivation to a clearer consciousness of the conflict between his self-will and the social laws which tradition inflicts upon him, finds a war going on in his own members. His life hereupon becomes only a sort of destruction of what is dearest to him. For as a social being, he has to recognise both the might of his social order and the dignity of its demands. But as a detached individual, he naturally hates restraint; that is, as Paul says, he hates the law. . . . There can be no true international life unless the nations remain to possess it. There can never be a spiritual body unless that body, like the ideal Pauline church, has its many members. The citizens of the world of the future will not lose their distinct countries. What will pass away will be that insistent mutual hostility which gives to the nations of to-day, even in times of peace, so many of the hateful and distracting characters of a detached individual man. In case of human individuals, the sort of individualism which is opposed to the spirit of loyalty, is what I have already called the individualism of the detached individual, the individualism of the man who belongs to no community which he loves and to which he can devote himself with all his heart, and his soul, and his mind, and his strength. In so far as liberty and democracy, and independence of soul, mean that sort of individualism, they never have saved men and never can save men.

For mere detachment, mere self-will, can never be satisfied with itself, can never win its goal. What saves us on any level of human social life is union."

— ROYCE: *The Hope of the Great Community:*
The Yale Review, January, 1916.

THE ELDER SOLDIER IN THE BROTHERHOOD TO
THE YOUNGER

Dear comrade, at whose feet thus now I kneel,
Of you perhaps so soon to be seen no more —
Here I give you my charge, that afterwards remembering
and desiring me,
You may find me in these others.

Slowly out of their faces I will emerge to you — lo! I
swear it,
By the falling rain and dimpled thunderclouds in the
East I swear it —
[To become your life whom I have loved so long]
With love absorbing, joy and blessedness enclosing,
I will emerge to you.

That you now to other comrades, and these again to
others,
Over the whole world may bear the glad covenant, per-
fected, finished —

To form an indissoluble union and compact, a brother-
hood unalterable,
Far-pervading, fresh and invisible as the wind, united
in Freedom —
A golden circle of stamens, hidden beneath the petals of
humanity,
And guarding the sacred ark.

Through heroisms and deaths and sacrifices,

Through love, faithful love and comradeship, at last
 emancipating the soul into that other realm (of free-
 dom and joy) into which it is permitted to no mortal to
 enter —

Thus to realise the indissoluble compact, to reveal the
 form of humanity.

— EDWARD CARPENTER: *Towards
 Democracy*, pp. 277-8.

Our slender life runs rippling by, and glides
 Into the silent hollow of the past;
 What is there that abides
 To make the next age better for the last?
 Is earth too poor to give us
 Something to live for here that shall outlive us?

Loves, hates, ambitions, and immortal fires,
 Are tossed pell-mell together in the grave.
 But stay! no age was e'er degenerate,
 Unless men held it at too cheap a rate,
 For in our likeness still we shape our fate.
 Ah, there is something here
 Unfathomed by the cynic's sneer,
 Something that gives our feeble light
 A high immunity from Night,
 Something that leaps life's narrow bars
 To claim its birthright with the hosts of heaven;

A conscience more divine than we,
 A gladness fed with secret tears,
 A vexing, forward-reaching sense
 Of some more noble permanence; . . .

Yea, Manhood hath a wider span
And larger privilege of life than man.

— LOWELL: *The Commemoration Ode.*

“ So long as a common crowd-compelling emotion binds into one any number of otherwise independent crowds, war will not arise between them; and this is the only force by which war can be banished. If the whole world were to be thus united unto a single overcrowd, war would cease, so long as that union of crowds lasted; and that would be so long and so long only as a single ideal animated in common a number of previously independent crowds, large enough to impose it upon all the rest, if necessary by overwhelming force. Armageddon will be the last battle between the last two overcrowds into which the world will some day consolidate, and that battle is still doubtless far away in the depths of the future. When it has been fought the ideal of the victors will be called ‘good,’ and that of the vanquished ‘evil,’ or in the language of the first prophet that foretold it, it will be a battle between Christ and Antichrist. After it there will be peace on earth so long as the overcrowd endures.

. . . Internal peace follows but does not cause the formation of an overcrowd, and so too righteousness arises in an organised and healthy society but does not, as an ideal to be attained, cause the formation of such a society on any world-embracing scale; and that notwithstanding that it has been preached and propagated by enthusiastic generations of excellent men, sacrificing their lives in the endeavour to extend it throughout the world. Similarly the possession of a common humanity has not amounted to very much as an international

crowd-compelling force. The 'enthusiasm of humanity' has ever been but the passion of the elect. The great mass of mankind does not feel it, and will not feel it till humanity has been welded into an overcrowd by some more potent force. That enthusiasm also would appear to be consequential rather than creative. If humanity — the whole race of man — could be threatened by the inhabitants of some other planet about to invade the Earth, humanity would group itself into a single organised crowd fast enough, having a common independent exterior crowd to hate and fear; but as no such object of common hostility is as yet apparent, humanity is not now affected by any common emotion powerful enough to weld it into a crowd able to absorb nations and subordinate their several patriotisms.

— SIR MARTIN CONWAY: *The Crowd in Peace and War.*

CHAPTER V
THE INVOLUTIONARY ASCENT

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THE INVOLUTIONARY ASCENT

I

“IN COMPLETED MAN BEGINS ANEW A TENDENCY TO GOD. PROGNOSTICS TOLD MAN’S NEAR APPROACH; SO IN MAN’S SELF ARISE AUGUST ANTICIPATIONS, SYMBOLS, TYPES OF A DIM SPLENDOUR EVER ON BEFORE IN THAT ETERNAL CIRCLE LIFE PURSUES.”

Granted that man is in his turn a structural unit, it by no means follows that he is the heir of the ages. Is man the unit of the fifth cosmic period? This is the question we have now to settle, and a most vital one it is. But before considering man’s claim to the line of ascent, let us look to the pretensions of his rivals. First among these, to the best of our judgment, stand the ants and bees. If co-operation and mutuality of endeavour are the criteria of progressive involution surely we find it here. But notwithstanding the integration of the social insects has led to highly organised involutes, it has so far as we are able to determine reached its culmination. While the groups have differentiated to a certain extent, they show no potentiality for the forming of larger

complexes. And with the Articulata thus put to the side, there is none to dispute man's right, for he combines in himself, as does no other vertebrate, the essential features of a structural unit.

Man possesses in a high degree that plasticity which rendered the unit, whatsoever its biological period, peculiarly sensitive to outward influences. He has also the great activity which has given him an increasing perception of the nature of the environment. And above all is he distinguished by those powers of concentration and quick response that have ever characterised his predecessors in the life chain. In man the psychical functions of the organic living network have reached their highest development thus far. Furthermore he stands in the same structural relation to the social congeries that earlier units stood to their respective colony formations. And because of his ability to respond more effectively to his environment than his fellow-creatures of the present evolutionary period, the more insistent and imperative is the need on his part of the larger adjustments coming through involution.

The human social composite is in its turn serial with the previous colony formations. Chromid, Cell, Gastrea, and Annelid, each in its turn passed through the same stages of development as are to be traced in the growth of a sovereignty. Nor does the social body fail to meet the criteria of an organic

structure. It is self-maintaining and self-perpetuating. It also simulates an individual in the interaction of its part-processes and like him opposes aberration from the main direction of its purpose. The question of physical connection among the components of the social entity should give us no trouble, since, for any colony formation, whatsoever its status, this resolves itself into an inquiry as to the transference of stimuli, and manifestly it is immaterial whether filaments or wires serve this purpose. That there is a certain type of physiognomy characteristic of a nation goes to show a spirit peculiarly its own. And so we might continue with the analogy indefinitely — through language, literature, customs.

If social systems are of organic growth, it must be possible to discover in them some definite principle of life. This principle I take to be the moral law. But it will be said that the standard of conduct is constantly changing, that it is never exactly the same even in the most similar countries, or in two successive generations in the same country. Very true, but this extreme mutability of the standards of action is due rather to intellectual variation than to a change in the moral instinct. For, as Buckle puts it, "there is, unquestionably, nothing to be found in the world which has undergone so little change as those great dogmas of which moral systems are composed. To do good to others; to sac-

rifice for their benefit your own wishes; to love your neighbour as yourself; to forgive your enemies; to restrain your passions; to honour your parents; to respect those who are set over you; — these and a few others are the sole essentials of morals; but they have been known for thousands of years, and not one jot or tittle has been added to them by all the sermons, homilies, and text-books which moralists and theologians have been able to produce. . . .” Have we not here the invariants of our group-analysis?

The Eastern religions conceive humanity as a being spiritual and eternal,¹ manifesting itself in time in a series of generations. Ancestor-worship is a recognition of this continuous life. The progress of mankind marks in Oriental thought the development of an entity of which the individual is the structural element.

The concept of the state as a unified organism dates back to Ezekiel, who likens Jerusalem to a man. Cicero finds all stages of human life reproduced in the history of Rome. St. Augustine generalises the simile, if simile it was, to humanity as a whole. Pascal leaves no doubt as to his attitude, for he says: “We must look upon the continuity of the human race throughout the centuries as the continued existence and progressive experience of a single hu-

¹ From the static or dynamic point of view, man is really and fundamentally an abstraction; reality belongs to humanity alone.

man being." On the other hand, Max Nordau expresses the view of many thinkers concerning this anthropomorphic interpretation of history in the remark: "Paracelsus came much nearer the truth when he called each man a microcosm, a world in himself." And the marvel of it all is that biology has found a synthesis inclusive of both interpretations.

II

" . . . AND THIS TO FILL US WITH REGARD FOR MAN, WITH APPREHENSION OF HIS PASSING WORTH, DESIRE TO WORK HIS PROPER NATURE OUT, AND ASCERTAIN HIS RANK AND FINAL PLACE."

If the factors of evolution were as definitely defined as we once supposed, there would be little difficulty in setting up those of involution. Natural selection would find its counter-part in altruism; survival of the fittest, in self-sacrifice; the struggle for existence, in co-operation. But with the recent change in the point of view of Evolutionists, the first have become greatly transformed so that one may not readily distinguish between the operators making for variation and those which are integrative in character. For instance, where we once read, "If there had been no struggle for existence, there would have been no adaptation and no improvement," we now read, "If there had been no struggle for exist-

ence, there would have been no destruction of forms already risen or arising.”²

Manifestly the effort has been to bridge the chasm between the unit and its component to the end that the Darwinian movement might be continuous. If altruism could be smuggled into the system of things, then integration would be seen to be a factor of evolution — a “neglected” one, to be sure, but one upon which emphasis could be placed as occasion required.

Although it is not possible to define the higher life-processes in terms of the lower, we are able to induce from the previous involutions of the life-movement certain elements that will at least point the way for the human unit. This is where the group analysis stands us in good stead.

Even as early as the second period the structural unit showed a certain degree of individual variation — a characteristic which became more marked with each succeeding period, the greater complexity of the organism rendering such increase possible. With the increase in differentiation went a growing augmentation of the compounding or socialising tendency. The importance of a right balancing of these two forces finds negative testimony in the many colony formations that have failed of the organic unity essential to integration, not to mention the

² KORSCHINSKY: *Naturwissenschaftliche Wochenschrift*, vol. xiv.

countless individuals that have dropped out from the life-procession in its triumphal march down the ages.

While there have been with each period many types of colony formations as a result of the lapsing into heterogeneity of the composite organism, only one of these has at any time attained to the unity creative of a higher life-form. If these serial units, unlike as they are in structure, can be said to have any characteristic in common, it is that of being close to the life-stock and varying in the direction of the life-principle. Furthermore, the communal-self was ever dependent upon the complete energising of the forces composing it. And so it is that Germany was the first of the sovereignties to achieve a national consciousness. But is its *Kultur* that of the general trend of civilisation? That is the vital question.

Although it is not possible to draw the line clearly between the differentiative and integrative factors, we may generalise to this extent: The first are more concerned with inherited tendencies, while the second have to do largely with the acquired characteristics induced by education and environment.

III

“FOR WHEREFORE MAKE ACCOUNT OF FEVERISH STARTS OF RESTLESS MEMBERS OF A DORMANT WHOLE? — BUT WHEN FULL ROUSED, EACH GIANT-LIMB AWAKE, EACH SINEW STRUNG, THE GREAT HEART

PULSING FAST, HE SHALL START UP AND STAND ON HIS OWN EARTH, THEN SHALL HIS LONG TRIUMPHANT MARCH BEGIN, THENCE SHALL HIS BEING DATE,—THUS WHOLLY ROUSED, WHAT HE ACHIEVES SHALL BE SET DOWN TO HIM.”

If morality has reverted, as it seemingly has, to ideals antedating even those of Attila, it is because the factors of evolution remain unaltered. Treitschke rewrites Nietzsche with a change of the structural unit, and evolution begins over again. The psychic entities that have replaced us in the scheme of things must needs evolve a morality of their own, for ours, even at its best, belongs to the pre-evolutionary period. Nations, like boys, have to pass through the school of experience — they are not born with a moral sense.³

There can be no doubt that the social conscience, inasmuch as it has to do with larger relations and greater complexities, is destined ultimately to transcend the individual conscience. Would we further its development, we must hold it responsible alike for Titanic and jitney disaster even at the loss of per-

³ The deliberate inculcation of hate by song and verse, the adoption of the methods of the bloodthirsty Barbarossa, and all the strange morbid religious utterances, show that the entire German nation at the present time suffers from an epidemic psychosis of an unmistakable significance, and probably inseparable from real involution.

— ALLAN McLANE HAMILTON:
North American Review, June, 1915.

sonal responsibility. The one virtue left to us as individuals in view of the biological chasm yawning at our feet is loyalty,—“our country; right or wrong, our country”—for the way to the larger loyalty is through the lesser. Civilisations at their height are inevitably marked by vice; for vice is the logical consequence of the impersonal attitude toward one’s fellows that necessarily goes with great numbers and the compounding process.

Although the social conscience is to be comprehensive of a greater good, until that conscience is fully evolved there will doubtless be many Lusitania wrongs of one sort or another. Since there is no reconciling the standards of diplomacy with our personal ideals our only consolation while undergoing the throes of integration is that Nature has evinced an increasing purpose through all her creations for the forming of a higher type of consciousness.

Are the finer powers of personality then to count for naught in this summing up process whose total is the corporate consciousness? For answer let us look back once more to the invariants of the life-group. We find there was always the giving up of self—the functioning for a common cause. Ah, but first there was a self worth the giving! Evolution saw to that. The period of differentiation was a long one even for the cell, and it grew ever longer as the unit rose in the scale of complexity. The involutionary process was based at every rise upon

the highest variation consistent with organic unity — as shown in the lower stages by free-swimming propensities; in the higher, by spontaneity of action generally. Indeed, there is great danger that an involute may have its rise in too low a degree of individualisation to permit of its forming a link in the life-sequence. With the large majority of its citizens barely over the edge of illiteracy, Germany may have come prematurely to the sense of a national self. From the point of view of our democratic ideal there is not the requisite heterogeneity among its elements to make life more than efficient for the day. On the other hand, the democratic ideal may be subversive of the necessary homogeneity for the informing of an organic whole. However that may be, it is interesting to note that the emphasis France has placed upon individual development is not telling against its spirit of loyalty.

Another invariant of the group-analysis, and one that is concomitant with the self-development of the element, is the sense of conscious adjustment with his fellows. This means political wisdom and virtue — in a word, democracy. Says Mr. Graham Wallas: "The very existence of the Great Society requires that there should be found in each generation a certain number of men and women whose desire for the good of others is sufficiently reliable and continuous to ensure that they will carry out the duty of originating leadership (mere dexterous self-

advancement does not originate) either in administration or thought. Whoever has known any such men will accept the statement, which they themselves constantly make, that no ambition, however lofty, would be sufficient to carry them through the unexciting toil, the constant disappointments, the ever present uncertainty of result, which are involved in the intellectual organisation of a modern community.”⁴

Although material conditions, habits and sentiments are necessary to the welding of a people, they do not suffice to give rise to the new life. That has its inception alone in the spiritual bond of common ideals. Only thus is the individual born again. “America is not the government,” says Mary Antin; “it is a spiritual state. America is a matter of the inner man.” Need we fear that personal worth and aspiration are lost to the involute when thus essential even to its inauguration?⁵

⁴ GRAHAM WALLAS: *The Great Society*, p. 146.

⁵ The old order changeth, yielding place to new,
And God fulfils himself in many ways,
Lest one good custom should corrupt the world.

— TENNYSON.

CORROBORATIVE READINGS

CORROBORATIVE READINGS

"The essential fact in man's history to my sense is the slow unfolding of a sense of community with his kind, of the possibilities of co-operations leading to scarce-dreamt-of collective powers, of a synthesis of the species, of the development of a common general idea, a common general purpose out of a present confusion. In that awakening of the species, one's own personal being lives and moves — a part of it and contributing to it. One's individual existence is not so entirely cut off as it seems at first; one's entirely separate individuality is another, a profounder, among the subtle inherent delusions of the human mind. Between you and me as we set our minds together, and between us and the rest of mankind, there is something, something real, something that rises through us and is neither you nor me, that comprehends us, that is thinking here and using me and you to play against each other in that thinking just as my finger and thumb play against each other as I hold this pen with which I write. . . . I see myself in life as part of a great physical being that strains and I believe grows towards Beauty, and of a great mental being that strains and I believe grows towards knowledge and power. In this persuasion that I am a gatherer of experience, a mere tentacle that arranged thought beside thought for this Being of the Species, this Being that grows beautiful and powerful, in this persuasion I find the ruling idea of which I stand in need, the ruling idea that reconciles and adjudicates among my warring mo-

tives. In it I find both concentration of myself and escape from myself, in a word, I find *Salvation*."

— H. G. WELLS: *First and Last Things*.

"The problem of living in this modern world is the problem of finding room in it. The crowd principle is so universally at work through modern life that the geography of the world has been changed to conform to it. We live in crowds. We get our living in crowds. We are amused in herds. Civilisation is a list of cities. Cities are the huge central dynamos of all being. The power of a man can be measured to-day by the mile, the number of miles between him and the city; that is, between him and what the city stands for — the centre of mass.

"The crowd principle is the first principle of production. The producer who can get the most men together and the most dollars together controls the market; and when he once controls the market, instead of merely getting the most men and the most dollars, he can get all the men and all the dollars. Hence the corporation in production.

"The crowd principle is the first principle of distribution. The man who can get the most men to buy a particular thing from him can buy the most of it, and therefore buy it the cheapest, and therefore get more men to buy from him; and having bought this particular thing cheaper than all men could buy it, it is only a step to selling it to all men; and then, having all the men on one thing and all the dollars on one thing, he is able to buy other things for nothing, for everybody, and sell them for a little more than nothing to everybody. Hence, the department store — the syndicate of department stores — the crowd principle in commerce.

"The value of a piece of land is the number of foot-steps passing by it in twenty-four hours. The value of a railroad is the number of people near it who cannot keep still. If there are a great many of these people, the railroad runs its trains for them. If there are only a few, though they be heroes and prophets, Dantes, Savonarolas, and George Washingtons, trains shall not be run for them. The railroad is the characteristic property and symbol of property in this modern age, and the entire value of a railroad depends upon its getting control of a crowd—either a crowd that wants to be where some other crowd is, or a crowd that wants a great many tons of something that some other crowd has.

"When we turn from commerce to philosophy, we find the same principle running through them both. The main thing in the philosophy of to-day is the extraordinary emphasis of environment and heredity. A man's destiny is the way the crowd of his ancestors ballot for his life. His soul—if he has a soul—is an atom acted upon by a majority of other atoms. . . .

"At the same time, I am glad that I have known and faced, and that I shall have to know and face, the Crowd Fear.

"I know in some dogged, submerged, and speechless way that it is not a true fear. And yet I want to move along the sheer edge of it all my life. I want it. I want all men to have it, and to keep having it, and to keep conquering it. I have seen that no man who has not felt it, who does not know this huge numbing, numberless fear before the crowd, and who may not know it again almost any moment, will ever be able to lead the crowd, glory in it, die for it, or help it. Nor will any man who has not defied it, and lifted his soul up naked

and alone before it and cried to God, ever interpret the crowd or express the will of the crowd, or hew out of earth and heaven what the crowd wants.

"We want to help to express and fulfil a crowd civilisation, we want to share the crowd life, to express what people in crowds feel—the great crowd sensations, excitements, the inspirations and depressions of those who live and struggle with crowds.

"We want to face, and face grimly, implacably, the main facts, the main emotions men are having to-day. And the main emotion men are having to-day about our modern world is that it is a crowded world, that in the nature of the case its civilisation is a crowd civilisation. Every other important thing for this present age to know must be worked out from this one. It is the main thing with which our religion has to deal, the thing our literature is about, and the thing our arts will be obliged to express. Any man who makes the attempt to consider or interpret anything either in art or life without a true understanding of the crowd principle as it is working to-day, without a due sense of its central place in all that goes on around us, is a spectator in the blur and bewilderment of this modern world, as helpless in it, and as childish and superficial in it, as a Greek god at the World's Fair, gazing out of his still Olympian eyes at the Midway Pleasance."

—GERALD STANLEY LEE: *Crowds*, pp. 19, 32.

"Biology never stops and never can stop in its dealings with any animal by regarding it as just an animal in an unrestrained sense. It always deals with some particular *kind* or *species* of animal. The fish must be treated as a fish, and the bird as a bird. Neither can be disposed of by merely attending to such general at-

tributes as need for food and propagation, common to both, and to all animals.

"In exactly the same way is it impossible for biology to consider man as just an animal. If it touches him at all it must touch him as the *human* animal. Confusion of thought in this matter, not only among laymen but among many biologists, is amazing, and has led to the most bizarre speculations about man, some of these being truly direful in their effects on human outlook and conduct.

"In the light of this simple zoological principle, such creations as Friedrich Nietzsche's 'Blonde Beast' is seen to have just as much and just as little claim to serious attention as have satyrs and centaurs. Because man retains some of the attributes of his animal ancestors which may come to the front in their ancient, or even in augmented force, under exceptional conditions, as in feeble-mindedness and insanity, it does not follow that all men should be looked upon as insane or feeble-minded.

"So biology, having been drawn into this discussion by showing that it would sanction war in such special cases as that symbolised by the hungry man and the loaf of bread, is bound to repel the attempt to make it justify war generally, especially since that involves the attempt to hamper biology in the use of one of her best established, most cherished procedures — that of treating each animal on the basis of its most distinctive attributes. While biology freely admits that the hungry man, like any other hungry animal, is bound to steal food or fight for it if necessary, it is at the same time compelled by the facts to recognise that as a *human* animal, endowed with reason, and foresight, and inventive talent, and humane sentiments, man dehumanises

himself if he does not use these endowments to forestall situations that would make hunger press thus severely upon him.

“There is a famous saying that man does not live by bread alone. This is better biology by a thousand times than those inculcations which would have his life depend chiefly on his general animal attributes and ignore for the most part those attributes that make him a special kind of animal, namely a rational, an esthetic, a moral, and a religious animal. Nobody, and especially no biologist, can notice too particularly that the man who does *not* live by bread alone, is exactly the man we call civilised. While in the savage state he does live by food chiefly, his outgrowing this is just what carries him into the civilized state.”

— WILLIAM E. RITTER: *War, Science and Civilisation*, p. 2.

“The intrinsic significance of Life’s fundamental facts cannot be grasped from the point of view of the individual. Death seems absurd, yet no mother ever gave birth to a child but in pains and pangs, and many diseases are inherent in normal growth; vicarious suffering seems supremely unjust, yet it is blessed. In the course of ages, man, through his efforts to understand life and himself, has worked out correspondences between the individual and the universal and codified these in dogmas, laws, and rules supposed to express absolute right and truth. But even the best-tested of them are not wholly true; several alternatives for judgment and action remain open in every case. It is impossible to settle the question once and for all as to which is better for the soul, wealth or poverty, comfort or suffering. . . . The fact is, that man can think only as an individual, while

life's essence is supra-individual, so that no system of set beliefs may claim to be wholly right.

"This fundamental truth has become clear once again to the few reflective among those citizens of the belligerent states who espoused the cause of their country unreservedly. They find that in doing so they have lost themselves and are now nothing but cells in the body of their nation, wholly ruled and controlled by forces and motives supra-individual; that this has made them fit to commit deeds (both bad and good) altogether alien to their individual character; and that, diminished though they be as personalities,—having lost in particular the capacity of impartial thought,—they live a life fuller than ever before, because consciously sharing that of a greater whole; they find last, and generally to their intense surprise, that they deem perfectly right and natural now the state and way of war.

"The passive onlooker is, as a rule, unable to understand this. According to him, war is a beastly business all through, and no noble deeds of sacrifice and courage can redeem the essential atrocity of manslaughter. But then he judges as an individual, and war cannot be understood from that point of view, being, as it is, an expression of supra-individual necessity."

—HERMANN KEYSERLING: *Atlantic Monthly*, February, 1916.

CHAPTER VI
SOME SPECIAL PROBLEMS OF
INVOLUTION

CHAPTER VI

SOME SPECIAL PROBLEMS OF INVOLUTION

I

“NOR SHALL I DEEM MAN’S OBJECT SERVED, HIS END ATTAINED, HIS GENUINE STRENGTH PUT FAIRLY FORTH, WHILE ONLY HERE AND THERE A STAR DISPELS THE DARKNESS, HERE AND THERE A TOWERING MIND O’ERLOOKS ITS PROSTRATE FELLOWS: WHEN THE HOST IS OUT AT ONCE TO THE DESPAIR OF NIGHT, WHEN ALL MANKIND ALIKE IS PERFECTED, EQUAL IN FULL-BLOWN POWERS — THEN, NOT TILL THEN, I SAY, BEGINS MAN’S GENERAL INFANCY.”

There is an old Icelandic myth which tells of the discomfiture that the god Thor underwent at the hands of the giants, who set him the task of lifting the Midgard Serpent, a snake so great that it reached round the entire earth, but by illusion was made to appear the size and shape of an ordinary cat. Our failure to solve the education problem is due to a similar misconception — what we take for the child-mind is a psychic entity as world-embracing as the Midgard Serpent, and, like the mighty

Thor, we have need to summon all of our divine power if we would wrestle with it effectively.

Never before in the history of civilisation has the crowd taken so important a place in the affairs of mankind. The substitution of the unconscious action of groups for the conscious activity of individuals is the most marked characteristic of our age. The collective mind is coming to be an ever-greater menace to the individual. Of no country is this truer than of our own, the land of the common school. We train our children to gregarious habits of thought and action, and then are surprised that they fail to meet the intellectual and moral standards of individual growth and development. Our education system is indeed out of joint, and in a far deeper sense than we are aware.

It is a recognised fact that an agglomeration of men will present, under certain influences, characteristics very different from those of the individuals composing it. Children are "but men of lesser growth," and, inasmuch as their individuality is not yet established, are all the more subject to collective impulses. In the bringing together of large numbers in schools, we set in operation most powerful forces making for the crowd-mind. The process of integration thus prematurely inaugurated is sufficient to account for the qualities we all deplore in our Rising Generation. In the study that follows, I have based my conclusions upon the characteristics

of the group-mind as determined by Le Bon in his notable work, "The Crowd."

There is a certain aligning power in association itself, especially when association is frequent and of long standing. That this holds of the school-room, witness the class-spirit with which the child is imbued almost from his first day at school. The unaccustomed numbers induce a crowd-consciousness. This quickly breaks down whatsoever individuality may have been attained. At the same time the child receives from it a new sense of power and with that sense comes the tendency to cast aside all control. Instincts which have been kept under restraint gain the mastery. Finding himself one of many, the child also loses what little sense of responsibility he may have acquired. The danger of mental is quite as great as that of bodily contagion. Sentiments and actions spread with great rapidity, as we all know.

Add to association, as the school-room does, the direct action of a common physical environment, the participation in common tasks, and, above all, the same directing personalities of teacher and class-leaders, and the outward conditions are certainly complete for a homogeneous whole. The subjective conditions are likewise right for the overthrow of the Self; obedience, the orientation of attention, the attitude of expectancy, the narrowing of the field of consciousness, the inhibition of voluntary activity,

and all the other prerequisites of good class-instruction.

The most potent factors for mental unity are, without doubt, suggestion and imitation. Suggestibility is at its maximum in children. Binet tells us that nearly all children over the age of seven are hypnotisable, and we need no authority to speak of the imitativeness natural to all children. The inhibitive power can be maintained only if the suggestions received differ from one another; if the suggestions reinforce one another, as they do in the class-room, no personal resistance can withstand them. Men of strong character are carried off their feet by the volume of suggestion that emanates from numbers; how much more so children! When we stop to think that fatigue accentuates suggestibility, we must realise the utter powerlessness of any but the exceptional child to cope with the mighty forces at work in our schools to draw him into the vortex of the super-conscious. There is, in fact, no assignable limit to the mastery of the crowd-self over its unfortunate constituents. Nor does the effect of this dominance end with the separation of the individuals forming the group. Not only is their individuality greatly weakened, but the crowd-habit is likely to persist throughout life. The large number of fraternal orders and societies of all kinds testify to the truth of this assertion. Ours is indeed an "era of crowds."

We talk much of personality because we are losing it. Whoever are the individuals composing the group, however diverse their mode of life, their temperament or intelligence, they are so dominated by the collective mind as to think, feel and act as one, and in a manner quite different from that of each individual of them in a state of isolation; this is the law of the mental unity of crowds. Its confirmation is found in the fact that our youth must read the same book and wear the same necktie. And because that uniqueness which marks a well-defined personality is denied them, they seek pitifully after some freakishness in manner or dress for the distinction that was their birthright.

The young people of the present are generally arraigned as shallower, feebler, more flippant and less intellectual than their grandfathers. In their cause I would answer that the collective mind is intellectually very inferior to the individual mind. It is not an average even of the elements composing it, but simply possesses those qualities which racially they have in common. For instance, to quote Le Bon: "The decisions affecting matters of general interest come to by an assembly of men of distinction, but specialists in different walks of life, are not sensibly superior to the decisions that would be adopted by a gathering of imbeciles. The truth is they can bring to bear in common on the work in hand only those mediocre qualities which are the

birthright of every average individual. In crowds it is stupidity and not mother-wit that is accumulated."

It is also true that our young people were never so thirstily avid of pleasure as now, nor so irresponsible and devoid of a sense of duty. But the wonder would be if this were otherwise, for the special characteristics of the group-mind are defined as irresponsibility, incapacity to reason, absence of judgment and of the critical spirit. In consequence, its members lack the virtues born of self-control: veracity, prudence, thrift, perseverance, respect for another's right, obedience to law. The individual isolated possesses the capacity of inhibiting his reflex action, but the individual of the crowd is the "creature of his spinal cord." The Sunday Supplement and the cheap show foster, but do not create, the trivialness by which they flourish. They are simply indications of a mental reversion to a lower thought-form of development.

But with all its faults, it is conceded that the Rising Generation is amiable, attractive and lovable. This should not surprise — it also follows as a natural result of socialisation. Crowds are impulsive; suitably influenced, they are ready to sacrifice themselves for an ideal. They exaggerate the sentiments; sympathy quickly becomes adoration. While the crowd-mind is always intellectually inferior to the isolated individual, its emotions and

acts may be better, for the suggestion determines their character. Appeals to sentiments of glory, honour and patriotism are particularly likely to influence the individual forming part of a crowd. In fact, collectivities alone are capable of great disinterestedness and devotion. From this aspect of their nature has come the power of our schools to assimilate and make good citizens of the riff-raff cast upon our shores. And because of this, there are those who would solace themselves that we have a broader, instead of a more deeply thoughtful, intellectual life, a more socialised ethics instead of stronger individual virtues. The philosophy of the day would abandon intellect and fall back upon intuition. We are to lose ourselves in the creative flow, but such an abandonment to instinct is merely a reversion to the gregarious impulse of our animal ancestry. The integration that marks progress for us can come only through the bonds of a deeper insight. Each is able to take his place in a whole only as he is uniquely himself. One's duty to others as well as to one's self is to attain the most complete selfhood that is possible.

The emphasis in education has perforce been placed on the memory faculties, not because our teachers do not realise the importance of developing the reasoning faculties, but because such faculties are lost to the group-mind. Our children cannot spell or write correctly, for the group-mind again

lacks observation, sees things as a whole and is blind to distinctions. They become nervous and "fall down" in examinations because they have learned to do team-thinking. In later life they make sycophants and demagogues, inasmuch as they are but fitted to take what place they may in the great community. The class-mind is likewise accountable for the fact that the "best students" usually amount to little in after life—they are the ones most plastic to suggestion and consequently leave school with correspondingly diminished individuality. Unless a place is made for them in the world of affairs, they rarely secure one.

That this evil has fallen upon our day and country is not ascribable to teacher or parent, or above all to the children. A more conscientious, able body of people than the teachers of our public schools does not exist; instruction has never been better than to-day. The young people are innately as earnest and anxious to meet life efficiently as their parents or grandparents were. With the scientific advancement in all lines, the influences making for mental quickening have greatly increased. Parents are taking a more vital, because a more intelligent, interest in the education of their children than did their ancestors. The spiritual and ethical influences are more potent for the upbuilding of character than in former times, notwithstanding the crumbling of old beliefs. Search as we may else-

where, the great fault of our education is to be found in our present class system of instruction. Our devotion to the ideal of democracy, combined with our loyalty to what we justly consider our greatest institution, our school system, has closed our eyes to the real issue in the education problem; this, I repeat, is not a question of method or of curriculum, but of the massing of children.

II

“FOR GOD IS GLORIFIED IN MAN.”

There are those who maintain that in the course of evolution the home must disappear — that as an institution it is archaic, having come down to us from those primitive times when physical conditions demanded close living for protection and warmth. They say that the sanctity with which it has been enveloped has kept it from evolving synchronously with our other institutions, that its manners and customs belong in consequence to a remote period.

This may be true, but the time has not yet come when we can afford to dispense with the home. Indeed, it has an augmented significance for the particular stage of development through which we are now passing. Not only does human nature need for its idiosyncrasies the protecting shelter of the hearthstone, but human progress requires that it should have that shelter. Now that Darwinism has given

way to Mendelism we may no longer hope to perfect human character through a gradual process of modification, but must look to spontaneity of expression for the realisation of our vision. Hence, with our laws, our work, our very feelings even, fast becoming socialised, we cannot have too much of individual expression. Let the home be what it may, it holds for us the one bit of life that in this day of the mass we can claim as distinctly our own. Outside its doors we are of necessity as other men; the law of averages strips us of aught distinctive and we fall into this category or into that. The increase of institutions makes all the more imperative our need of the home. To counteract this menace of fewer personalities, our youth must have such individual upbringing as only the home can give.

We need the home. How are we to keep it? An organ becomes atrophied only through disuse; so an institution dies but with the purpose it subserves. The disappearance of the home may be hastened by easy divorce or the high cost of living, but the disappearance itself finds its *raison d'être* in the fact that the home has ceased to function as it should for the general welfare. The loosening of the marriage bond is an effect, not a cause, of its disintegration. How blind we are when it comes to causal relations! We lament the passing of the home, and yet rejoice in every bit of advance that the State makes towards assuming the province of the parent. What is the

significance of the manual training school, the cooking school, the sewing class, the public playground, the school garden? Simply this, that the home is failing to function for the child as was its wont.

That the home no longer fulfills the purposes of its existence is due largely, I fear, to a blindness on the part of the woman as to what constitutes her true worth and significance in the life economy. Having laboured for centuries in the preparation of the food and clothing for the family, woman naturally thinks that with the going of this work from the home has gone her only occupation, and that she must follow it or become a parasite in the system of things. She overlooks the possibility of family needs other than these physical ones, needs that she alone can supply. With the increasing complexity and strain of industrial life, the man requires as never before the quiet of a well-regulated home. The children, compelled to struggle for their individuality with the subtle and amalgamating influences of school and playground, are in growing want of the constructive faith and direction of a wise mother.

The conserving of the goods of the family has ever fallen to the care of woman, but with the advance of civilisation these goods have become largely spiritualised. To this the woman has not awakened. In her eagerness for activity she has emphasised the superficial rather than the tender and more intimate needs of her family. The woman has yet to see that

the cost of living is largely determined by the standards which the home sets; that the servant problem can be solved only by her, its mistress; that the true rescue of the girl lies with the mother; that there would be no social evil if the boy received from his home the right ideals of life; that her husband is the slave-that-she-deplores of the industrial system because of her demands. When the home has done its work, there will be little need of social service. If the woman is to fill her place properly she must indeed be educated and fully abreast of the thought of the age, but her highest work is still in the home, not out of it.

We all need some one to believe in us, the strongest man as well as the smallest child. That so many of our young people "go to pieces," or rather never find themselves, is for lack of just this constructive faith. Our grandmothers did more than bake and brew. They believed in the boy, and this part of their work cannot be consigned to factory or school; it must be done at home by hand. Living is becoming too machine-made; the stitches are big, ends are unfinished — what wonder that happiness becomes so easily unravelled!

The life process is a synthesis throughout. The child comes into the world a bundle of potentialities, some good, some bad; the good must be co-ordinated, the bad eliminated. This requires much loving thought and attention. The Greek realised this and

sought the wisest man to be found as the architect of his boy's character. Ah, here is a calling for woman that was deemed worthy of an Aristotle!

The process of gestation is by no means finished with the birth of the child. After God had made man in His own image He still found it necessary to breathe into him the breath of life. But mothers are too apt to think that their creating is finished with the body; they overlook the spirit. Nor can this matter of the spirit be entrusted to some one else; the mother, having brought forth the body, should know best with what spirit to inform it; and a most intimate process, too, is this of breathing into a child the breath of life. It can be done only by close companionship and much giving of time.

The mother who is occupied with business or professional duties must of necessity give the child over to governesses and teachers. She justifies herself that he receives better training from these specialists than she can give him. But no amount of skill on the part of others can have the same constructive force for the making of character as mother-love if combined with culture and training. All who have gardened know how plants respond to love and attention; much more so children — yes, and husbands too. O ye women who cry aloud that your work has been taken from you, there is for you still in the home the greatest of all work, the upbuilding and strengthening of purpose and character in those who are

dearest to you! It is yours to give to that home what no one else can: the warmth of a constructive personality.

It will be urged that woman has a right to the discipline which comes from participation in the affairs of the world; that only through such rational responsibility may she attain the full development of her personality. But not only does the home need the woman; the woman needs the home. Her largest self-hood is not to be realised through high specialisation, but through the all-round-faculty and adaptability that the home life requires. The Chinese honour most the woman who is able to hold together the greatest number of persons in an harmonious family life. The woman of the Occident may draw a lesson therefrom.

In order that woman may accomplish this, her noblest work, she must be free to attempt every accessible height both of personal cultivation and of political influence. When the sex has demonstrated its ability to achieve success in other professions, and woman as an individual becomes a homemaker of choice and not of necessity, then and only then will the home take on a dignity equal to these professions. Moreover, women must have the right to work outside the home if they are to regard it a privilege to work in it. Nor does motherhood necessarily imply that woman should be barred from other activities, but if she is a mother that is her first loyalty. Only

by being true to it can she attain to that higher loyalty of personal service to humanity to which she most earnestly aspires.

CORROBORATIVE READINGS

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"My wonderment was to grow when we entered the school-room, for where I had expected to see children was a great beast of indefinite outline and motley colour resembling a dragon. I would have fled affrighted, but Mary, after a few words of exorcism, proceeded in the most matter-of-fact way to drill the creature in the theorems of geometry! Over and over again the same phrases were mumbled in endless repetition by its many mouths. Greatly did I marvel at her patience in endeavouring to mould this heterogeneous organism into some coherency of thought and action. And what power the woman displayed; not only did she hold in subjection one eye, but a hundred eyes! At times the creature seemed tractable and open to suggestion for noble purpose, but in a moment it became black and glowering if crossed in any way. While it was quick to see things and receive impressions, it could do little reasoning of itself. I learned later that its memory faculties were also very feeble, notwithstanding the unceasing drill.

"Finally a bell rang and the dragon rose, swayed to and fro,—then rushed from the room with the sound of countless feet. I had just breathed a sigh of relief, when in came sprawling another beast like unto the first, and called Class B; and all day long did Mary train these monsters in mathematics,—to what end I have yet to learn."

—CORA LENORE WILLIAMS: *As If*.

"Since civilisation first dawned on earth the family

has been the social unit on which all authority, all order, and all obedience have reposed. Therefore the family has been the cement of society and the chief element in cohesion. To preserve the family and thus to make society stable, the woman has always sacrificed herself for it, as the man has sacrificed himself for her upon the field of battle. The obligations and the sacrifices have been correlative. But I beheld our modern women shrilly repudiating such a standard of duty and such a theory of self-sacrifice. On the contrary, they denied that they, as individuals, owed society any duty as mothers or as wives, and maintained that their first duty was to themselves. If they found the bonds of the family irksome, they might renounce them and wander whither they would through the world in order to obtain a fuller life for themselves. . . .

“If it be true, as I do apprehend, that our ‘democratic ideal’ is only a phrase to express our renunciation as a nation of all standards of duty, and the substitution therefor of a reference to private judgment; if we men are to leave to ourselves as individuals the decision as to how and when our country may exact from us our lives; if each woman may dissolve the family bond at pleasure; if, in fine, we are to have no standard of duty, of obedience, or, in substance, of right and wrong, save selfish caprice; if we are to resolve our society from a firmly cohesive mass, unified by a common standard of duty and self-sacrifice, into a swarm of atoms selfishly fighting each other for money, as beggars scramble for coin, then I much fear that the hour cannot be far distant, when some superior because more cohesive and intelligent organism, such as nature has decreed shall always lie in wait for its victim, shall spring upon us and rend us as the strong have always rent those wretched be-

cause feeble creatures who are cursed with an aborted development."

— BROOKS ADAMS: *The American Democratic Ideal*, *The Yale Review*, January, 1916.

CHAPTER VII
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I

“HINTS AND PREVISIONS OF WHICH FACULTIES ARE STREWN CONFUSEDLY EVERYWHERE ABOUT THE INFERIOR NATURES, AND ALL LEAD UP HIGHER, ALL SHAPE OUT DIMLY THE SUPERIOR RACE.”

At a recent alumni banquet in one of our large universities, an eminent biologist was called upon to respond to the toast, “After Science, What?” His auditors instinctively braced for the oncoming of mechanistic forces. What was their glad surprise at the simple response, “Love”? Such farsightedness is in our spiritual order of things only if one has attained to the summit of the years; from a man whose eye is still at the microscope we have come to expect a vision limited to heliotropic dogs and their human prototypes. That such a question could be put to a scientist, to say nothing of the answer, is most significant. Can it be that fifty years of Darwinism have sufficed to bring consciousness to such extension in matter that, as Bergson tells us, it has perforce to turn toward life for further advance?

It will be generally conceded that the attention which the world is giving to science must in time have its psychological effect upon the collective mind. But that the resultant of this general focusing of mental energy will be love, might give rise to controversy. (Professor Royce would no doubt parallelize it as loyalty; others would veer it in the direction of cosmic consciousness; and some of us who are mathematically minded think to resolve it into fourth-dimensional insight.) Perhaps, like the blind men who went to see the elephant, we shall find that these are but different aspects of the same truth.

The evolution of the mind has been a progress toward a unity of consciousness which is at once the basis of attention and of love. It will be demurred that there are many kinds of love. Quite so; and perhaps for the very reason that there are many kinds of attention. We will begin our study with personal love, and proceed from that to communal, since that is the order of experience for the majority of persons, notwithstanding Kropotkin¹ thinks to find it the reverse for the race.

Although love is usually ascribed to some virtue inherent in the object of its passion, it is a recognised fact that the mental attitude has much to do with its engendering. The child attends best to the study he likes, but the teacher knows that the liking is contingent upon the attention. The biographies of great

¹ P. KROPOTKIN: *Mutual Aid*.

men show that intense concentration is invariably accompanied by intense passion for the work. Do we not say of the suitor that he is paying "attention" to his lady; and have not travel, change of scene,—that is, of attention,—been ever the prescription for an *affaire du cœur*? Propinquity is the basis of almost all marriages, said Jane Austen, and had she known herself to be the great psychologist she was, she would have added because it is conducive to attention.

The psychological characteristics of the love-state are identical with those of attention. Each must have an object for its focusing. In both there is an inhibition; also a turning of the mental flux to the exclusive benefit of a single element. Note the old adage: There is safety in numbers. It is this very substitution of a relative unity of consciousness for the normal plurality of thought that gives rise to the sense of exaltation which comes with falling in love. Since the psychological process fundamental to the converging of attention is motor in its nature, the object must have "captured the personality" after the manner of love. In fact, to understand the mechanism of attention is to understand the mechanism of love.

Like the power to attend, the capacity for loving is a matter of will and directed effort. As we have achieved the one through a concentration of our thought, we shall attain the other by the further pro-

jecting of our mental power. The two are equally dependent upon the ability of the mind to control its processes, and in that sense only is love the gift of the gods we have thought it.

And not only does love resemble attention in its normal aspects but in its abnormal ones as well. The grand passion and the fixed idea are the acute and chronic forms respectively of that state of ideation wherein a single representation absorbs all thought. Of its very nature attention requires a great expenditure of physical force not possible to one whose strength is exhausted by work or anxiety. In a passive state of consciousness the work of the brain is diffused, but with attention the work becomes localised. This concentration of effort to one part of the organ obviously requires a rapid transformation of potential energy into actual kinetic energy, and for this there must be a reserve of vital force. If attention is thus difficult physiologically to one in a state of fatigue, how much more so its higher form, love? It is not strange that affection sometimes goes out of the door when sickness and poverty enter.

Before going further into the question it were perhaps well to discriminate between spontaneous and voluntary attention, for therein lies the basis of the difference between dependable and non-dependable affection. In the passive state of the mind impressions come and go in perpetual flux. It is through the association of these impressions that sensations,

ideas, and images arise. All such associations have their genesis in an emotional state. If the resulting attention arises entirely from an emotion it is said to be spontaneous or involuntary and is quite out of the individual's control; on the other hand, it is voluntary and hence controllable to the degree that it is a matter of training and will. The mind possessed of the power only of involuntary attention is a slave to external conditions—an object officially strong to attract, a disagreeable element in work or study, and its loyalty is shifted! That individual alone is master of his life who is able to exercise will in the directing of his attention and of his love.

The attitude of voluntary attention is of its very nature a laborious one; it has to suppress useless elements, expel intrusive ones, and exert a sustained effort in holding to a definite line of thought. Its work of direction is to choose the appropriate states and maintain them within consciousness. This work it can accomplish only through inhibition, which means a going-against its natural impulses. Hence for the majority of persons it is an impossible task to control the attention, a contingent achievement for all. What wonder, then, that so many fail to realise love!

Fortune-telling in all matters, and particularly those of the heart, were best done in the psychological laboratory. "Would you know, fair maid, if your love be true? Have him tested as to what sort

of attention he is wont to exercise. If it is by fancy engendered it will go as fancy listeth and his love with it. And however attractive you may be, there is no telling at what moment some other woman may prove more so to a mind that is subject to the chance of circumstance." The only guarantee of connubial bliss is to be found in the voluntary, willed attention of determinate aim, which is the highest achievement of education. The many toys of babyhood, the countless diversions of youth, the moving picture and vaudeville shows, the racing hither and thither in pleasure-seeking, are a sequence culminating psychologically in the divorce court. If you would teach loyalty, constancy, good-citizenship, teach attention, for this is the foundation of all morality.

Sir Ray Lankester has recently shown that the connection between love and attention is one of biological evolution: that the elementary principle of courtship from the lowest unicellular organism to man is the impression, or the idea, derived by the female from the proximity of the male. This influence of the male, Darwin called charm, and the capacity of the female to be acted upon by it, her receptivity. The instruments of charm are significant, Lankester says, only as they proclaim the presence of the male in the field of consciousness and evoke a series of appropriate ideas. Courtship among animals consists of attempts on the part of the male to secure the female's attention, and to fascinate her by

the display of brilliant colors or astonishing poses and movements. And is not the same true of the human species — with possibly a reversal of subject and object? In this connection it is to be noted that voluntary attention was first manifested in woman; hence her development toward constancy in love has been of longer standing than man's. Voluntary attention is a sociological phenomenon because it is the result of discipline and habit; likewise is stability in matters erotic.

But if sexual love has had its significance for the race, it has had a far greater significance for the individual. The growth of consciousness, or personality, is a constructive, organising process demanding a synthesis for its formation. This the individual is rarely able to hold of himself; he falls short of his ideal in act or thought, and so loses his bearings self-ward. It is the sacred office of love to bridge this gap between the real and the ideal. In ordinary friendship the individual is able to reveal only that aspect of his personality which he feels will be understood and so falls short of that complete self-realisation for which the ego is ever striving — a pain for which Eugene Delacroix says he knows only one remedy, "*une épouse qui est de votre force.*" Referring to this, Ellen Key says very truly, "The sense of home in another soul is what gives love its chastity." When she adds, though, that woman must convert man not to the duty of monogamy but

to the joy of unity, she is overlooking the man's larger good for which unity of consciousness is the first desideratum and as such must be regarded as a duty without question of joy. Apropos is the Chinese saying: "The mind through oneness the soul procures."

The way to a higher morality is manifestly through the community of life coming from the sharing of attention; for love, like attention, can persist only if there be a constant desire of attaining to a yet higher state. When attention has reached this point in its development there will be no "passionate friendships" such as H. G. Wells would have obtain. The joy that we have in another is due to the thought that makes us a part of itself. To be shut out of the consciousness of a loved one is in very truth to be cast into outer darkness. Even the child feels this, and when neglected seeks any method of calling attention to himself. What is taken to be jealousy is more often the blind despair of a lost spirit. The impulse for notoriety is the only way the criminal knows of getting into the social consciousness. This need of finite beings for the warmth of an embracing personality has a close connection with the anthropomorphic conception of the Infinite; while it may not have given rise to that, it has no doubt much to do with our clinging to the idea of the Fatherhood in the face of scientific knowledge — which may be inter-

puted to show that the foundations of truth lie deep within the human soul.

Mate-hunger is the craving for a larger being, and not, as generally considered, for the reproduction of the species. Nature took to propagating only when she found herself unable to realise her purpose through the given individual. She continues to project life into the future in order to escape immediate dangers or take a new start to the better attaining of her goal. We may have here the key to the decrease in the birthrate of a people, the nearer it comes to the perfecting of the individual. Nature is sufficiently wise to know that if life is good; it is good right here and now. The object of life, whatever the form, is the approximation of some ideal. Love, as we have discovered, furthers that purpose; hence love's larger function may well be the arrest of life on the physical plane and its exaltation to a spiritual one. From this point of view the term becomes, after the Platonic usage, synonymous with wisdom or beauty.

The emphasis for both love and loyalty has been placed hitherto on the object. Royce would have the cause all-embracing, compelling, supreme, certain and fit to centralise life; the unification is to come from without and above. If love is, however, the matter of attention it would seem to be, we should be able to say of a man that he is a good lover with-

out regard to the object of his love, as we are wont to say he is a good thinker without concern of the object of his thought. The mind is the generator of a light-force which obeys the same laws as other wave-promulgated forces. Any woman is a radiant being for the man whose attention is focused upon her to the degree of luminosity. To be sure, the force to attend carries with it the power to select, but it carries something more, and that is the power to hold the vision which prompted the selection.

“ If beyond earthly wont, the flame of love
 Illume me, so that I o’ercome thy power
Of vision, marvel not: . . . I well discern,
How in thine intellect already shines
The light eternal, which to view alone
Ne’er fails to kindle love.”

If attention throws a new light on love, love furnishes new insights for the functioning of attention. It is quite possible that thought and inspiration are as dependent upon a sexual interchange for their inception as other forms of life. We are learning the dual nature of all evolving force. Although the great line of cleavage made by sex starts on the physical plane, it by no means ends there. Man and woman are quite as definitely separated by it in the psychical realm. Hence the need of the exchange of life-essences on the intellectual as well as the physical level of being. I wonder that it has never occurred

to any one to account for the slow advancement of thought by the fact that the psychological process of its generation has been in the main an asexual and not a bisexual process. It is to be noted that the great thinkers have been usually great lovers. Perhaps, Goethe, we have surprised the secret of your wonderful mind!

But this whereof we speak is personal love; what significance can it have for the collective consciousness? Every mode of self-expression that was once individual, such as music and dancing, has in the course of time become racial; the social body in all probability follows the individual one in the general lines of its development. Now we have found that love in its highest attributes is a constructive synthetic force, creative of the ideal. Let such power become universal and we shall know a love that for its potency may well have cosmic sway.

The mere recognition that the power to love centres in the power to attend does not, however, produce that power. And this is where science plays its part. The habits of study and concentration which science induces are the best possible for training the mind to self-directed effort. Science requires as no other subject the close attention of which love is the highest manifestation. Moreover, scientific knowledge, founded as it is upon the universal laws of nature, must perforce fuse and unify the race as naught else.

While I agree most profoundly with Bergson that the intellect is dependent upon the intuition for the perception which inspires and directs its working, I would emphasise as he does not that the intuition can rise to new visions only if the intellect has given full organisation to the data of experience. To this fact is due the great significance of science for the race. Such organisation causes matter to become progressively spatialised for consciousness; hence it follows that while space is a form of our thought it is a form of our own evolving. That our consciousness is limited to three dimensions means simply that the intellect has progressed thus far only in its conquest of matter. But now that science is postulating a fourth dimension for its working we may presume that the collective mind is getting ready to take the leap upward to that higher level of insight denominated cosmic consciousness.

II

“HOW DIVERS PERSONS WITNESS IN EACH MAN,
THREE SOULS WHICH MAKE UP ONE SOUL.”

Bergson has shown that consciousness, in order to move in the direction of life, has to detach itself from the *already-made* and attach itself to the *being-made*. The former is the zone of distinct consciousness, the realm of science; the latter is that higher realm of the spirit which we know only through the intuition.

Regarded as a means to growth in consciousness, the intuition therefore clearly transcends the intellect; hence the emphasis which Bergson has placed on it. But as clear-cut perception is found essential to advance of intellect, so a comprehensive grasp is necessary to intuitive insight. The knowledge thus obtained is a metaphysic in the true meaning of the word, for it requires a substratum of physics.

In our quest for the involutionary way, we shall have to distinguish between the unity that comes through instinct and the unity that comes through insight; the one results from an expansion of the feelings and is a sinking back to the previous involutionary period; the other can result only from a concentration of the will that reaches to something beyond itself. The naturalistic tendency of the day is to look to the unconscious part of our being as the source of all good. But since no distinction is made between the sub-conscious and the supra-conscious, a lower rather than a higher psychic level of our nature is apt to be thus invoked. The will becomes weakened, the subsidiary centres of nerve force regain control, and the disintegration of personality follows. The medium's is a case in point. The only gain that can come from such atavistic relapse is the recovery of rudimentary powers, powers which in the long process of the individual's involution have become eliminated, and doubtless for some good reason. It were well to unravel the work of nature if by so doing

we are sure of picking up only desirable stitches.

To the extent that we allow the subjective mind to take precedence of the rational, we rehabilitate the primitive elements in us. And further, we are lending ourselves to the process of *devolution*, for there is no standing still in the life-stream; Romanticism is a retrograde movement until it creates for itself a new classicism.

The vital law of one's being is not to be found through the emotions. Its discovery demands, as Mr. Irving Babbitt has ably shown in his *New Laokoon*, not only effective thinking, but effective self-discipline. The way of individual growth is one of concentration and selection; the law of the higher unity is self-constraint and not self-expansion.

While the way of the progressively larger life is a fixed one, the individual unit is free to take it or not as he chooses. If he would realise a complete self-hood, he must do so through his relations to others; there is no development for him apart from his fellows, but the degree of this self-realisation lies with himself. Although he may not be free to set up his own life-function, he may, nevertheless, choose the element with respect to which he would integrate it. In other words, he may decide what for him shall constitute the "eternal values." Concerning the question of freedom, the mathematician will find solace in the fact that the constant of integration allows for a certain amount of indetermination; the individual

may at least fix for himself the height of his goal. Immortality is ours for the winning.

It is by faith that we transcend our individual consciousness, but faith without knowledge is blind. We set up for ourselves graven images and bow down to unknown gods in our gropings for a higher life, but there is no good nor truth for us apart from a final systematisation of our purposes. Disintegration and evil come because our will is not yet known to ourselves. Our Towers of Babel are forever toppling through a confusion of purposes, but when we shall come to think with one accord (that is, rationally), nothing can be restrained from us, providing we have the vision; then verily our temple shall reach unto Heaven.

CORROBORATIVE READINGS

CORROBORATIVE READINGS

“Communion — the union of one person with the unifying will of many — is an experience of a new order. While it does not supersede, it supplements in an essential manner both devotion in the isolated soul and co-operation of soul with soul. Only in communion of the individual with the universal mind of a concrete group is the craving of the spirit fully satisfied.

“What is more, to communion, as distinct from other means of spiritual satisfaction, is attached the happy circumstance that human life on earth is more favourable to it than to reciprocal communication or to the seclusion and retirement of solitary worship. Scarcely once in a lifetime may chance favour the meeting of spirit with spirit in the perfect understanding for which spirit yearns; and even then the meeting is likely to last only for one mystic moment. Nor do the duties, cares and interests of life allow frequent retirement and withdrawing of consciousness to the soul's own centre of gravity, where it realises its inward self-sufficiency. The general will, however, of a group to which we belong, and which is working for the establishment of a perfect society on earth, will accompany us through the thick of the fight and fuse itself with a thousand interests. Nor does it require that the many persons shall individually experience the perfection, each with each, of spirit communication; the soul of the group tends to induce, but does not wait for, perfected friendships.

"Rare and wonderful, but undeniable, is the inner strength and satisfaction which lonely, misunderstood and disappointed men and women experience from spiritual communion, without even the opportunity of receiving and conferring individualised affection. The craving which cannot be satisfied except by the inpouring of the general will is altogether different from that which needs the love and affection of others. The love for an individual spirit demands from it recognition, appreciation and attention; such love must be noticed; without approbation it is cast down. He, on the other hand, who has experienced inspiration from a group-spirit — itself super-personal — is, as it were, himself rendered super-personal. He has lost himself and, with himself, the craving for love from other personal selves; but he has found himself again in the larger self — the Social Oversoul — which unifies him with others too closely to admit of the consciousness that they are different identities."

— STANTON COIT: *The Spiritual Nature of Man.*

"The rational implies and in a measure reveals the super-rational. The rational world — the potential domain of science, the field of concept and logic — is not the whole sphere of our psychic life. It is but a mid-region, the median zone; under it lies a sub-rational zone — the zone of sense, which we share jointly with the beasts; above it, a world super-rational, which millions have fancied angels share with us. Though it is above and beyond the dominion of concept and logic, the existence of that world is yet betrayed and its nature in part displayed, by rational means: by a process known in mathematics as the method of limits but elsewhere known as the process of idealisation. Operating amid the activities of concept and logic and upon their subject-matter,

the great process occurs in every division of the rational understanding; its function is, in every category where the laws of reason reign, to point aloft to an appropriate limit beyond their range, to some ideal form above the laws: in the category of classes, to an ideal universe as the manifold of all; in the realm of propositions or that of relations, to the sum or the product of all propositions or all relations; in that of time, to eternity; in knowledge, to omniscience; in ubiety, to omnipresence; in power to omnipotence; in order and law, to necessity or fate; in indetermination, to absolute freedom or self-determination; in wisdom or love, to the "beauty absolute" of Plato's dream; and so on and on throughout the circuit and scope of rational thought. And so it is that the realm of super-rational reality—the ultimate source of the religious emotions—thus indicated by the supernalising process of idealisation operating in the fields of reason, presents itself as an over-world of ideals."

— C. J. KEYSER: *The New Infinite and the Old Theology.*

This is the doctrine he was wont to teach,
 How divers persons witness in each man,
 Three souls which make up one soul: first, to wit,
 A soul of each and all the bodily parts,
 Seated therein, which works, and is what Does,
 And has the use of earth, and ends the man
 Downward: but, tending upward for advice,
 Grows into, and again is grown into
 By the next soul, which, seated in the brain,
 Useth the first with its collected use,
 And feeleth, thinketh, willeth,— is what Knows:
 Which, duly tending upward in its turn,
 Grows into, and again is grown into

By the last soul, that uses both the first,
Subsisting whether they assist or no,
And, constituting man's self, is what Is —
And leans upon the former, makes it play,
As that played off the first: and, tending up,
Holds, is upheld by, God, and ends the man
Upward in that dread point of intercourse,
Nor needs a place, for it returns to Him.
What Does, what Knows, what Is; three souls, one man.
I give the glossa as Theotypas.

— BROWNING.

CHAPTER VIII
SPACE AS A THOUGHT-CATEGORY

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SPACE AS A THOUGHT-CATEGORY

I

“AND I KNOW NOT IF, SAVE IN THIS, SUCH GIFT BE ALLOWED TO MAN, THAT OUT OF THREE SOUNDS HE FRAME, NOT A FOURTH SOUND, BUT A STAR.”

The human mind has so long followed its early cow-paths through the wilderness of sense that great hardihood is required even to suggest that there may be other and better ways of traversing the empirical common. It is in full consciousness of the danger of jungles that I proceed.

Three dimensions do not suffice to set forth the ways of our joy in the sense world about us. What of this perceptual residue? Obviously to give it extension we shall have to ascribe to reality other dimensions than those of our present space-realm. Some disciple of Bergson interrupts: “Ah, this whereof you speak is a spiritual thing and as such is given by the intuition. Why, then, do you seek to spatialise it?” And the layman out of his mental repugnance to things mathematical echoes,

“Why?”¹ I would answer that the process of creative involution makes imperative the transfixion by the intellect of these so-called spiritual perceptions. Although the intuition transcends the intelligence in its grasp of beauty and truth, we may attain to the higher insight it has to offer only if the things of the spirit become known to the intellect — a point in Bergson’s philosophy which the majority of his readers overlook. “We have,” he says, “to engender the categories of our thought; it is not enough that we determine what these are.” Bergson is pre-eminently the prophet of the higher-space concept. We had done better to hold to Kant, for now we are not only confronted with the fourth dimension as a thought-form, but with the duty as well of furthering its creation. And in that light we have to regard what of worth and meaning our spiritual perceptions have for us.

The space wherein we live and move and have our being, ostensibly, is just so much of reality as our thought is able to compass. In fine, it is our thought which sets boundaries and marks out the ways by which we come and go. What wonder then that we regard space as a projection of the thinking principle! And so it is — this finite space to which

¹ “Length, Breadth and Thickness, take up the whole of space. Nor can Fancies imagine how there should be a Fourth Local Dimension beyond these Three.”

—JOHN WALLIS (1616-1703).

we ascribe length, breadth, and thickness, and think we have said it all; but quite otherwise that eternal realm which we occupy in common with beings higher than ourselves.

That the majority of persons are still feeling their way over the surface of things is attested by the general mental ineptitude for the study of solid geometry. Depth and height play little part in our physical perception. For nearly all of us the third dimension is practically unknown beyond the reach of a few feet. The aviator soaring aloft — why all the bravado of curve and loop? Sooner or later he will fall to his death. Ay, verily! but his is a joyous martyrdom making for the evolution of consciousness. Not always shall we crawl like flies the surface of our globe!

(Although the scientist has found it useful on occasion to postulate the fourth dimension, he has not thought it necessary as yet to put it in the category of reality; much less has the layman. Consequently the mathematician holds the sole title to its knowledge unless we recognise the claims of the medium to a fourth-dimensional insight.) There is much to-day, however, which points to our coming to such perception as the natural result of our evolution and quite apart from geometrical abstractions or occultism. It is as though some great tidal wave had swept over space and we have, unbeknown to ourselves, been lifted by it to new heights. And when we have once

obtained our spiritual balance we shall doubtless find that our space-world has taken to itself another direction, inconceivable as that now seems.

Space is more than room wherein to move about; it is, first of all, the room in which we think, and upon the way we do so depends the number of its dimensions. If the attention has become "riveted to the object of its practical interest" to the extent that this is the only good the creature knows, then is its thought-form one-dimensional even though its bodily movements are three-spaced. The great Peacock Moth wings a sure course mate-ward to the mystification of the scientist; the dog finds the direct way home — his master cannot tell how; Rockefeller knows his goal and attains it, regardless of other moral worths. For these the way is certain. They can suffer no deflection since there are no relative values, no possible choices. Their purpose makes the road one-dimensional.

While a man's space-world is limited by his thought, it is, on the other hand, as boundless as his thought. That the world evolves with our consciousness, is at once the philosophy of "Creative Evolution" and of the higher-space theory, which is Creative Involution. Our present spatial *milieu* has settled down to a seemingly three-dimensional finality because our thought-form has become so habitual as to give rise to certain geometric axioms. All we need in order to come to a fourth-dimensional con-

sciousness, said Henri Poincaré, "the greatest of moderns," is a new table of distribution: that is, a breaking up of old associations of ideas and the forming of new relations — a simple matter were it not for our mental inertia. Lester Ward speculates that life remained aquatic for the vast periods that paleontology would indicate: Cambrian, Silurian, Devonian, Carboniferous — a duration greater than all subsequent time — for the reason that the creature had not sufficiently progressed to move otherwise than in a straight line when actuated by the desire for food or mate. Life was not able to maintain itself on land until it had overcome this one-dimensional limitation. A venturesome Pterodactyl was he who first essayed to make his way among the many obstructions to be found ashore! By what intuition was he impelled?

The significance of the much fumbling and groping of earth's creatures is the desire for a larger outlook. Man has to feel his way out of a three-fold world even as the worm out of his hole. (That we are hearing much of the principle of relativity is perhaps the best indication we have that the collective human consciousness is about to enter a higher dimension. So long as man knew only an absolute good was his world a definitely determined world. Now that the question of relative values obtrudes itself on every side, the range of consciousness promises to be infinite.)

II

“EARTH HERE, REBUKED BY OLYMPUS THERE.”

All knowledge is a matter of proper placing — the relating of things one to another. The trained thinker, said Kant, is one in whom the space-sense is well developed. We have come to our present concept of space through long learning of the laws wherewith our sensations follow one another.² None of these alone could have brought us to a three-way extension of matter; for example, a purely visual space is four-dimensional. Nor is the external world the unmodified resultant of our bodily movements, for a strictly motor space would have as many directions as we have muscles.

Are we to regard geometry, then, as an experimental science? “Nature geometrises,” but so did the gods before it — hence no earthborn thing this, the purest of all pastimes! The experiment in the case concerns not what is the truth; rather how to choose from all possible truths that one which best fits our human needs. What particular geometry we are destined to have is a question only of our understanding. As to its truth — as well ask if the metric system is true.

Of the infinite number of causes which give richness and depth to human experience, the intellect is able to grasp only a small part. Some of these we

² See HENRI POINCARÉ: *Science and Hypothesis*, pp. 52-4.

denominate love, justice, colour, distance. But whether the occurrence be due to change of state or of position, we perceive it as a transformation within an aggregate of sense impressions. In order, then, to reduce the realm of consciousness to unity, each cause must work uniformly with the others: that is, be expressible in terms of the others. And since what lawdom the mind has thus far achieved is based on spatial relations, the hyper-space theory offers the quickest method to the systematisation of experience.

The scientist is finding that, as he studies matter more closely, he has need of other dimensions than the conventional three. While the larger movements of the physical realm are still duly categorised on the hypothesis of a three-dimensional space, there are other movements within the minute structure of organisms which require a finer net for their snaring. But given the proper leeway, a molecular force takes on the aspect of a motor force and is quickly classified.

Psychic phenomena are fast yielding to measurement, as the psychological laboratories of our universities attest. That things transcendental will give up their mystery with a larger spatial outlook is highly probable in view of the analogy obtaining between spiritual laws and fourth-dimensional properties. Mr. Hinton found, for instance, that the first requisite to higher space perception was the doing

away with self-elements (right and left; up and down); he had, as he phrases it, to acquire an altruistic knowledge³ of a block of cubes. (And in order to take the view of a higher being, in general one has to live openly,—to understand one's fellows as they are in their true selves, and not in their outward forms.) Indeed, it may well be that those who feel within them the immanence of a higher life are best fitted to visualise for us the fourth-dimensional reaches that lie all about our mundaneness.

How is it that four-dimensional processes and motions can be limited to the three-dimensional representations that we observe? In other words, what is the reality of which the present sense experience is but the shadow?⁴ These are the questions we have to ask ourselves, and to solve if we would attain to the fourth dimension of being,—for greatly do we delude ourselves if we think it is to come “out of the blue.” To illustrate the sort of one-to-one correspondence that may be set up between the new world and this, our old: a fourth-dimensional movement may be, as Mr. Bragdon suggests, the proximate cause of the phenomenon of growth. Likewise the density of a body, according to Dr. Blake, may be taken as our perception of its thickness in hyperspace. In fine, to acquire the sense of another di-

³ *A New Era of Thought*, p. 93.

⁴ For if the intuition were a concept gained *a posteriori* . . . we should not be able to say any more than that, so far as

rection,⁵ we have to regard this all-too-solid world as merely the kinematographic representation of realities beyond our physical ken.

hitherto observed, no space has yet been found having more than three dimensions.

If it is possible that there are developments of other dimensions of space, it is also very *probable* that God has somewhere produced them. For His works have all the grandeur and variety that can possibly be comprised.

— KANT.

⁵ And I know not if, save in this, such gift be allowed to man,
That out of three sounds he frame, not a fourth sound, but
a star.

Consider it well: each tone of our scale in itself is naught:
It is everywhere in the world — loud, soft, and all is said:
Give it to me to use! I mix it with two in my thought:

And there! Ye have heard and seen: consider and bow the
head!

— BROWNING.

CORROBORATIVE READINGS

CORROBORATIVE READINGS

“ The gift of pure mathematics, on the other hand, is primarily to the mind and spirit: the fact that man uses it to get himself out of his physical predicaments is more or less by the way. . . .

“ Common sense, immersed in the mere business of living, knows no more about life than a fish knows about water. The play of reason upon phenomena dissects life, and translates it in terms of inertia. The pure logic of mathematics ignores life and disdains its limitations, leading away into cold, free regions of its own. Now our desire for freedom is not to vibrate in a vacuum, but to live more abundantly. *Intuition* deals with life directly, and introduces us into life's own domain: it is related to reason as flame is related to heat. All of the great discoveries in science, all of the great solutions in mathematics, have been the result of a *flash* of intuition, after long brooding in the mind. *Intuition illuminates*. Intuition is therefore the light which must guide us into that undiscovered country conceded by mathematics, questioned by science, denied by common sense — *The Fourth Dimension of Space*.”

— CLAUDE BRAGDON: *Four-Dimensional Vistas*, pp. 6-8.

“ The question relates rather to the greater and more advanced part of geometry — whether that tends in any degree to make more easy the vision of the idea of good. . . .

Yet anybody who has the least acquaintance with geometry will not deny that such a conception of the science is in flat contradiction to the ordinary language of geometers.

How so?

They have in view practice only, and are always speaking, in a narrow and ridiculous manner, of squaring and extending and applying and the like — they confuse the necessities of geometry with those of daily life; whereas knowledge is the real object of the whole science.

Certainly, he said.

Then must not a further admission be made?

What admission?

That the knowledge at which geometry aims is knowledge of the eternal, and not of aught perishing and transient.

That, he replied, may be readily allowed, and is true.

Then, my noble friend, geometry will draw the soul towards truth, and create the spirit of philosophy, and raise up that which is now unhappily allowed to fall down.

Nothing will be more likely to have such an effect.

Then nothing should be more sternly laid down than that the inhabitants of your fair city should by all means learn geometry."

— PLATO: *The Republic*.

"How the Stranger vainly endeavoured to reveal to me in words the mysteries of Spaceland.

I. . . . But before your Lordship enters into further communications, would he deign to satisfy the curiosity of one who would gladly know whence his Visitor came?

Stranger. From Space, from Space, Sir: whence else?

I. Pardon me, my Lord, but is not your Lordship already in Space, your Lordship and his humble servant, even at this moment?

Stranger. Pooh! what do you know of Space? Define Space.

I. Space, my Lord, is height and breadth indefinitely prolonged.

Stranger. Exactly: you see you do not even know what Space is. You think it is of Two Dimensions only; but I have come to announce to you a Third — height, breadth, and length.

I. Your Lordship is pleased to be merry. We also speak of length and height, or breadth and thickness, thus denoting Two Dimensions by four names.

Stranger. But I mean not only three names, but Three Dimensions.

I. Would your Lordship indicate or explain to me in what direction is the Third Dimension, unknown to me?

Stranger. I came from it. It is up above and down below.

I. My Lord means seemingly that it is Northward and Southward.

Stranger. I mean nothing of the kind. I mean a direction in which you cannot look, because you have no eye in your side.

I. Pardon me, my Lord, a moment's inspection will convince your Lordship that I have a perfect luminary at the juncture of two of my sides.

Stranger. Yes: but in order to see into Space you ought to have an eye, not on your Perimeter, but on your side, that is, on what you would probably call

your inside; but we in Spaceland should call it your side.

I. An eye in my inside! An eye in my stomach! Your Lordship jests.

Stranger. I am in no jesting humour. I tell you that I come from Space, or, since you will not understand what Space means, from the Land of Three Dimensions whence I but lately looked down upon your Plane which you call Space forsooth. From that position of advantage I discerned all that you speak of as *solid* (by which you mean "enclosed on four sides"), your houses, your churches, your very chests and safes, yes, even your insides and stomachs, all lying open and exposed to my view.

I. Such assertions are easily made, my Lord.

.

Stranger. Surely you must now see that my explanation, and no other, suits the phenomena. What you call Solid things are really superficial; what you call Space is really nothing but a great Plane. I am in Space, and look down upon the insides of the things of which you only see the outsides. You could leave this Plane yourself, if you could but summon up the necessary volition. A slight upward or downward motion would enable you to see all that I can see.

The higher I mount, and the further I go from your Plane, the more I can see, though of course I see it on a smaller scale. For example, I am ascending; now I can see your neighbour the Hexagon and his family in their several apartments; now I see the inside of the Theatre, ten doors off, from which the audience is only just departing; and on the other side a Circle in his study, sitting at his books. Now I shall come back to you. And, as a crowning proof, what do you say to

my giving you a touch, just the least touch, . . . then meet your fate: out of your Plane you go. Once, twice, thrice! 'Tis done!

An unspeakable horror seized me. There was a darkness; then a dizzy, sickening sensation of sight that was not like seeing; I saw a Line that was no Line; Space that was not Space; I was myself, and not myself. When I could find voice, I shrieked aloud in agony, 'Either this is madness or it is Hell.' 'It is neither,' calmly replied the voice of the Sphere, 'it is Knowledge; it is Three Dimensions: open your eye once again and try to look steadily.'

I looked, and, behold, a new world! There stood before me, visibly incorporate, all that I had before inferred, conjectured, dreamed, of perfect Circular beauty."

— ABBOTT: *Flatland*, a book which Professor Felix Klein says every student of mathematics should know.

"And now, I said, let me show in a figure how far our nature is enlightened or unenlightened:— Behold! human beings living in an underground den, which has a mouth open towards the light and reaching all along the den; here they have been from their childhood, and have their legs and necks chained so that they cannot move, and can only see before them, being prevented by the chains from turning round their heads. Above and behind them a fire is blazing at a distance, and between the fire and the prisoners there is a raised way; and you will see, if you look, a low wall built along the way, like the screen which marionette players have in front of them, over which they show the puppets.

I see.

And do you see, I said, men passing along the wall

carrying all sorts of vessels, and statues and figures of animals made of wood and stone and various materials, which appear over the wall? Some of them are talking, others silent.

You have shown me a strange image, and they are strange prisoners.

Like ourselves, I replied; and they see only their own shadows, or the shadows of one another, which the fire throws on the opposite wall of the cave?

True, he said; how could they see anything but the shadows if they were never allowed to move their heads?

And of the objects which are being carried in like manner they would only see the shadows?

Yes, he said.

And if they were able to converse with one another, would they not suppose that they were naming what was actually before them?

Very true.

And suppose further that the prison had an echo which came from the other side, would they not be sure to fancy when one of the passers-by spoke that the voice which they heard came from the passing shadow?

No question, he replied.

To them, I said, the truth would be literally nothing but the shadows of the images.

That is certain.

And now look again, and see what will naturally follow if the prisoners are released and disabused of their error. At first, when any of them is liberated and compelled suddenly to stand up and turn his neck round and walk and look towards the light, he will suffer sharp pains; the glare will distress him, and he will be unable to see the realities of which in his former state he had seen the shadows; and then conceive some one

saying to him, that what he saw before was an illusion, but that now, when he is approaching nearer to being and his eye is turned towards more real existence, he has a clearer vision,—what will be his reply? And you may further imagine that his instructor is pointing to the objects as they pass and requiring him to name them,—will he not be perplexed? Will he not fancy that the shadows which he formerly saw are truer than the objects which are now shown to him? ”

— PLATO.

CHAPTER IX

SORROW AND ADVERSITY ESSENTIAL TO GROWTH IN CONSCIOUSNESS

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I

“NOR YET ON THEE SHALL BURST THE FUTURE, AS SUCCESSIVE ZONES OF SEVERAL WONDER OPEN ON SOME SPIRIT FLYING SECURE AND GLAD FROM HEAVEN TO HEAVEN; BUT THOU SHALT PAINFULLY ATTAIN TO JOY, WHILE HOPE AND FEAR AND LOVE SHALL KEEP THEE MAN!”

Those who know but little of mathematics may take comfort to themselves that mathematicians as a class are seemingly as far from hyper-space perception as the rest of mankind. And since comparatively few persons have any real knowledge of the spatial laws underlying our three-dimensional sense-realm, we may assume that the attainment of a four-way world is not contingent upon the understanding of its mathematical structure. If then it be true that the greater insight is not a matter of technical training, the humblest may hope to discover in the deep well of life's experience some star of this new firmament.

We have to note that maladjustment has ever been the spur toward a larger consciousness — even from the beginning of things. So long as a creature's internal and external worlds are in harmonious relation each to the other, sensations come and go and life is complete for that particular level of experience.

If, however, the interaction is imperfect, the impression holds over and links itself with the following one, and the creature rises to a consciousness of a beyond. With this consciousness come new impulses and desires. These in turn give rise to memory. The organism learns to discriminate between the old and the new, the desirable and the undesirable. Pleasure and pain, with their concomitants, good and evil, come into being. The creature now has a purpose, the maintenance of the good — the established; the avoidance of the evil — the inexperienced.

Mr. Bernard found as characteristic of the structural unit a high degree of plasticity, rendering it most sensitive to outward influences, and also great activity which gave it more and more profound perception into the nature of the environment. While the survival of the organism was contingent upon the concentration of its powers of reaction and response, its involutionary growth came through an active storming of the environment. Hence in his potentiality for the mastery of a progressively widening environment lies the foundation of the higher life for

man. But when we stop to think that with the actual conquest of the environment goes an equilibration that lowers the vitality of the organism, the solution is not so simple as it would appear. Harmonious adjustment, a sense of peace, may mean death,—not an enlarged, uplifting unification.

As all progress for the non-moral creature has been occasioned by a certain lack of adjustment between the internal and external conditions, likewise all progress for the moral one must come through suffering. “Deep tragedy,” said Napoleon, “is the school of great men.” Bitter failure and cruel disappointment; sorrow and death; ay, these are movements into an unexplored space! And if such are not vouchsafed us as individuals, we have to attain them through others — hence the significance of love for the unfolding of personality. And it is clear that the greater the number of elements which enter into one’s personal equation, the more difficult will be the solution.

It is a matter of common observation that the growth of the higher perceptive faculty is strangely concomitant with adversity. The intuitive person is a person who has suffered. When conditions press sufficiently hard, a new table of distribution may be the only means for survival. Thus we proceed to make a virtue of necessity and so come to the recognition of other values which we denominate spiritual because we have not as yet spatialised them. The

caterpillar has to mount the twig to find the tender green that is his food, but he is solaced for the journey by thinking himself a creature of the light. Mr. Carpenter, in an interesting study of what he calls Intermediate Types, shows that the seers and spiritually minded came to be such because they found themselves differing in some wise from their fellows, and dwelling on that difference, had their minds turned inward. Progress in thought and imagination naturally followed, with the result that these were lifted above the majority and attained thereby to larger vision.

Only in the height and depth of the soul's experience is to be found the spiritual reach, the fourth dimension for which we seek.

“ So fear not grief, fear not anguish, thou,
The paining heart, the prostrate brow;
This is the emblem, and this the sign,
By which God singles thee for fields divine.”

II

“ TO KNOW RATHER CONSISTS IN OPENING OUT A WAY
WHENCE THE IMPRISONED SPLENDOUR MAY ESCAPE,
THAN IN EFFECTING ENTRY FOR A LIGHT SUPPOSED TO
BE WITHOUT. THEREFORE, SET FREE THE SOUL ALIKE
IN ALL, DISCOVERING THE TRUE LAWS BY WHICH THE
FLESH ACCLOYS THE SPIRIT ! ”

In view of recent investigation, one may safely as-

sert that the logic of philosophy has a mathematical basis, but to suggest that the Hegelian dialectic admits of geometrical demonstration is venturing far into the borderland of the bizarre.

However, I believe to have discovered therein a four-dimensional solution of life's problems. For our three-way vision, reality is divided into two parts. Now it is the one that seems illusion, now the other, as the light chances to fall. The human mind has laboured in vain with the problem of opposites for the very want of the higher synthesis afforded by the four-dimension concept. And so it has gone on from century to century alternating between monism and dualism according as it saw fit to sacrifice opposition to unity or unity to opposition.

But Hegelianism rejects neither; rather does it preserve both in the synthesis of a third. Unity for it is a matter of congruence such as we have in plane geometry when two triangles which are alike except for a reverse order of parts are brought into coincidence. Wherever we find symmetry of structure, there is a dualism of opposites — and symmetry is, as we have seen, a fourth-dimensional phenomenon. Is not the turning of an object into its mirror image a coincidence of opposites? Yet such a rotation about a plane in the fourth dimension is the mere analogue of the rotation in our three-dimensional space about a line.

When we have learned to think those states of con-

sciousness that we denominate love, hatred, joy, sorrow, and so forth, in terms of space, we shall know to harmonise them. Though the opposites are opposed to each other, out of their congruence comes that unity which is reality. The process whereby the congruence is effected constitutes development — life as we know it. This raising of consciousness to a higher power — here designated involution — Hegel, with a seeming prescience of its geometrical nature, called “overcoming.”

The objection sometimes urged that the “concrete universal” is not a pure logical concept for the reason that it involves a sense element, goes to confirm the hypothesis of its spatial dependence. But the ideal form of reality holds here as in all of our thinking, inasmuch as the identical process does not admit of coincidence in a figure chosen at random; it requires the one at right angles to the plane of being. The Absolute as thus represented is no indifference of subject and object. Here is a logical form which is the form of the real in its integrity.

In the two processes of evolution and involution as they affect our lives we have all true opposites confronting each other, as it were, in phalanxes. The dialectic is our only spiritual hope in the strife of these opposing forces. In such logical doctrine alone do we find a one that is not beyond the many; but that is the many.

CORROBORATIVE READINGS

CORROBORATIVE READINGS

"Look yonder," said my Guide, "in Flatland thou hast lived; of Lineland thou hast received a vision; thou hast soared with me to the heights of Spaceland; now, in order to complete the range of thy experience, I conduct thee downward to the lowest depth of existence, even to the realm of Pointland, the Abyss of No Dimensions.

"Behold yon miserable creature. That Point is a Being like ourselves, but confined to the non-dimensional Gulf. He is himself his own World, his own Universe; of any other than himself he can form no conception; he knows not Length, nor Breadth, nor Height, for he has had no experience of them; he has no cognisance even of the number Two; nor has he a thought of Plurality; for he is himself his One and All, being really Nothing. Yet mark his perfect self-contentment, and hence learn this lesson, that to be self-contented is to be vile and ignorant, and that to aspire is better than to be blindly and impotently happy. Now listen."

He ceased; and there arose from the little buzzing creature a tiny, low, monotonous, but distinct tinkling, as from one of your Spaceland phonographs, from which I caught these words, "Infinite beatitude of existence! It is; and there is none else beside It."

"What," said I, "does the puny creature mean by 'it'?" "He means himself," said the Sphere; "have you not noticed before now, that babies and babyish people, who cannot distinguish themselves from the world, speak of themselves in the Third Person? But hush!"

"It fills all Space," continued the little soliloquising Creature, "and what It fills, It is. What It thinks, that It utters; and what It utters, that It hears; and It itself is Thinker, Utterer, Hearer, Thought, Word, Audition; it is the One, and yet the All in All. Ah, the happiness, ah, the happiness of Being!"

"Can you not startle the little thing out of its complacency?" said I. "Tell it what it really is, as you told me; reveal to it the narrow limitations of Pointland, and lead it up to something higher." "That is no easy task," said my Master; "try you."

Hereon, raising my voice to the uttermost, I addressed the Point as follows:—

"Silence, silence, contemptible Creature! You call yourself the All in All, but you are the Nothing: your so-called Universe is a mere speck in a Line, and a Line is a mere shadow as compared with—"

"Hush, hush, you have said enough," interrupted the Sphere; "now listen, and mark the effect of your harangue on the King of Pointland."

The lustre of the Monarch, who beamed more brightly than ever upon hearing my words, showed clearly that he retained his complacency; and I had hardly ceased when he took up his strain again. "Ah, the joy, ah, the joy of Thought! What can It not achieve by thinking! Its own Thought coming to Itself, suggestive of Its disparagement, thereby to enhance Its happiness! Sweet rebellion stirred up to result in triumph! Ah, the divine creative power of the All in One! Ah, the joy, the joy of Being!"

"You see," said my Teacher, "how little your words have done. So far as the Monarch understands them at all, he accepts them as his own—for he cannot conceive of any other except himself—and plumes him-

self upon the variety of 'Its Thought' as an instance of creative Power. Let us leave this God of Pointland to the ignorant fruition of his omnipresence and omniscience: nothing that you or I can do can rescue him from his self-satisfaction."

After this, as we floated gently back to Flatland, I could hear the mild voice of my Companion pointing the moral of my vision, and stimulating me to aspire, and to teach others to aspire.

— ABBOTT: *Flatland*, pp. 141-4.

"Our thought, . . . in investigating reality, finds itself face to face, not only with *distinct*, but also with *opposed* concepts. . . . Such are the antitheses of true and false, of good and evil, beautiful and ugly, value and lack of value, joy and sorrow, activity and passivity, positive and negative, life and death, being and not-being, and so on. . . . Instead of finding the concrete universal, the organic whole of reality which it seeks, thought seems everywhere to run against two universals, opposing and menacing each other. . . . Why should reality lose its true character when mind rises from the contemplation of the particular to the contemplation of the whole? Does not the whole live in us as vividly as does the particular?"

"And here it is that Hegel gives his shout of jubilation, the cry of the discoverer, the *Eureka*, his principle of solution of the problem of opposites: a most simple principle, and so obvious that it deserves to be placed among those symbolised by the egg of Christopher Columbus. The opposites are not illusion, neither is unity illusion. The opposites are opposed to one another, but they are not opposed to unity. For true and concrete unity is nothing but the unity, or synthesis, of

opposites. It is not immobility, it is movement. It is not fixity, but development. The philosophic concept is a concrete universal, and therefore a thinking of reality as at once united and divided. Only thus does philosophic truth correspond to poetic truth, and the pulse of thought beat with the pulse of things."

— BENEDETTO CROCE: *The Philosophy of Hegel*, pp. 10-20.

"This is *The Sermon on the Plane*, preached to the planemen by Him who was 'crucified.'

"'Heaven is all about you: a city lying four-square, clear as glass and filled with light. Here your real, your immortal selves, have their true home. This world of yours which seems so substantial is but a mutable and many-coloured film staining the bright radiance of this crystal heaven. Your lives are but tracings made by your immortal selves in this film world. . . .

"'Each of you has this heavenly, or cube body, which you must think of as related to your physical or square body, as that is related to one of its bounding lines. The cube is the true individual, of which the square is but a single illusory and inadequate image. The individual expresses itself in countless of these personalities, each one a tracing of itself: the sum total of all possible tracings is the cube itself. Birth and death are illusions of the personality. For the cube they are not, since it did not begin its existence with its first contact with the film which is your world, nor will that existence cease when it passes beyond that world; neither does the changing cross-section which it traces in thus passing comprise or comprehend its life. Time and change are illusions of the personality. The cube knows neither increment nor diminution. All conscious cross-

sections inhere within it — all possible forms of the film world. It is their revelation only which is successive, giving rise to the temporal illusion.

“Learn now the precious secret of immortality. The consciousness within the cube and within the square are one consciousness, and that consciousness is divine. It is possible, therefore, to identify your plane consciousness with your cube consciousness, and rise, by such means, into the higher-dimensional world. This is achieved by desire, by work, by knowledge, by devotion — but more than all by love, as you shall learn.

“Because each individual traces in the film world a different figure, determined by the angle at which it meets the film — by its *attitude toward life* — you are all under the illusion that each person is unique and singular, that some are better and some worse. But these differences are accidental: they do not exist in the heaven world, where all are God's children, and may become one with the Father. Live *uprightly*, love and cleave to one another. By so doing you will make vertical and parallel the axes of your higher, or cube bodies; and as the sides of your square bodies cleave together, so will the faces of your cube bodies coalesce. By loving your neighbour, therefore, you are “laying up treasure in heaven”; for two cubes can unite their faces only when the lines of their square sections are similarly joined. Love effects this junction.

“When cubes conjoin in mutual love the individual is transcended, the consciousnesses merge into one, and a larger unit is formed. This process may go on repeating itself, so that if love should become the universal law of life, the aimless drift of souls would cease, for all would enter the Great Peace at last. All hav-

ing united into one great crystal cube, the Heavenly City, the film world would vanish. The White Light would shine unobstructed through the City of the Lord.

“It is thus that consciousness becomes self-conscious. It multiplies itself. Each unit, in its cube body, attains to a realisation of its form and structure through the many tracings that it makes in physical matter (the film world), each transit being an incarnation, a personal life. The events of each life seem, to the personal consciousness, to slip away into nothingness, never to be recovered; but every experience of every film life, all of its contacts with other cubes, are indelibly impressed upon the higher body and by the cube consciousness may be recovered at will, since all inhere in the bounding planes of the cube. For this reason, when cube consciousness is attained by the personality the memory of past lives is recovered. All lives may be lived over again as vividly as before: the indwelling consciousness has only to seek out in the boundaries of its cube body the particular point or line of contact with the film world in which the vanished event inheres. More than this, when any cube unites with any other, the indwelling consciousness of each, overpassing its normal limitation, is able to share in all of the past experiences of the other as though they were its own. By multiplying these contacts until all the cubes coalesce, each individual consciousness might share the experience of every other, from the dawn to the close of the cycle of manifestation. This is Nirvana, ‘the Sabbath of the Lord.’

“These things I have spoken unto you that in me ye might have peace, that all may be one, and that they may be made perfect in one. My peace I give unto you.”

— CLAUDE BRAGDON: *A Primer of Higher Space*, pp. 74-8.

CHAPTER X

THE FOURTH DIMENSION IN THE PROC- ESS OF EVOLVING FOR THE COLLECTIVE MIND

CHAPTER X

THE FOURTH DIMENSION IN THE PROCESS OF EVOLVING FOR THE COLLECTIVE MIND

I

“ . . . WHEN I SAY ‘ YOU ’ ’TIS THE COMMON SOUL, THE COLLECTIVE, I MEAN: THE RACE OF MAN THAT RECEIVES LIFE IN PARTS TO LIVE IN A WHOLE, AND GROW HERE ACCORDING TO GOD’S CLEAR PLAN.”

“ God unable to make the world eternal gave it Time, ‘ a moving image of eternity.’ ” Hence consciousness is ever the process of becoming that it was for Heraclitus. And for that reason we are not able to give to matter the properties of pure space. Some portion of it must always transcend the spatial frame, however great the dimensionality of being to which we may attain.

That part of the infinite realm of matter which the intellect has grasped we designate reality; the vast unknown beyond our mental ken we think of as spiritual. The distinction between the physical and the metaphysical is purely one of our understanding. While growth in consciousness implies a continuous

advance into the realm of "higher matter," the transcendental suffers no diminution in consequence, for that which is infinite cannot be lessened by finite subtractions. It is a mathematical error to assume that one's intuitive realm is the richer, the less one's knowledge.

We have to apprehend the truth before we can give it form. And for the acquiring of immediate knowledge time is needed. In that sense, time, as we now know it, is the fourth dimension in the process of evolving for the collective consciousness. It does not follow, though, that our existence in a fourth dimension will be freer from the tedium of time than is this present existence. When the "order changeth" there will be a new time — the fifth dimension as it in turn presents itself to consciousness.

For a normal development — one in which the process of intellection has kept pace with the intuition — time is one-dimensional to the mind that is experiencing it. Those who would delve into the super-rational have to remember that there must be due organisation of empirical data for the advance to be a permanent one.¹

¹ Nothing is together in any texture or effect which was not successively introduced; and everything is therein, according as order itself introduces it: wherefore simultaneous order derives its birth, nature and perfection from successive orders, and the former is only rendered perspicuous and plain by the latter.

Though the concept of higher time would seem to be implicit in the idea of higher space, quite the contrary may be true. There are straight lines in a four-dimensional space as well as in a two-dimensional, and the straight line of itself has naught to reveal of properties beyond the linear. It is only through the strain and stress resulting from the turning of curves that one comes to a sense of higher space-relations.

While to a person possessed of a four-dimensional consciousness, recognition of spiritual truth is instantaneous, such recognition is limited to the truths that have spatial representation. There are still greater truths awaiting the fifth-dimensional unfoldment which a four-dimensional consciousness may be quite as slow in sensing as creatures of a lower order the truths beyond their particular realm of understanding. Greatly then does it behoove us to look to our time curvatures. Every moment is unique in that it may be a transitional point into a larger realm of consciousness.

II

“AND THE EMULOUS HEAVEN YEARNED DOWN, MADE EFFORT TO REACH THE EARTH, AS THE EARTH HAD DONE HER BEST . . . TO SCALE THE SKY.”

In the Hegelian system the particular interest is shown to be the vehicle of the universal. What more

fitting medium, then, for the launching of a new thought-form than a great international exposition! There spirit is seen in its historical development, and men by the very pursuit of their own private ends come to a knowledge of things universal.

Human interest having in these later days become largely centred on value-judgments and estimates of worth, an exposition affords perhaps the most general application of the principle of relativity to be found, bringing it home to the collective mind in an intimately human way as nothing else could. Where nation is vying with nation and individual with individual in all of the arts and crafts of human industry, absolute standards must needs vanish, and with their going we may be able to set up such a distribution of values as will give new direction to our efforts. However that may be, the industrial competition to which, in the last analysis, the Exposition owes its inception, is pushing many aside from the beaten highways into hitherto unexplored regions of thought and endeavour, and who is to say that we may not in consequence find a direction quite at right angles to all of our wonted ways of thinking? What visitor to the Jewelled City, that synthesis of many minds, was not lifted for the moment, at least, out of the realm of things temporal to the vision of new truth and beauty!

The Panama-Pacific International Exposition is best seen in its fourth-dimensional aspect when ap-

proached through the Gateway of Memory. This is what one might expect, for that entrance alone has the requisite geometrical structure. You will recall having heard, I am sure, how in the fourth dimension a person may go in and out of a locked room at his pleasure with bolts and bars untouched. Broad and open as is this Gate of Memory, when you pass its portals the wall closes behind you; there is no visible opening to mark the spot of your entry. A feeling of detachment comes over you. This is augmented by the burst of light and colour that flashes across the field of your vision, and for the first time you understand the purport of those "banners yellow, glorious, golden," which "do float and flow." They seem to bear you on breezes of their own creating to the freedom of outer spaces. What you had taken for the flauntings of festivity are become the heralds of hyperspace.

As you wend your way down the Avenue of Time you feel an inexpressive lightness, a sensation of being lifted out of yourself. The moment is unique. Things are unrelated. There is no concern of proportion. The place is one of immediacy. You wander from the ephemeral to the ephemeral. "Time is," you say, in childish glee. And you hasten to assemble images, as many and as disparate as possible, believing that you are drinking life at its fountain head. The outer world presents itself to your consciousness in the form of facts in juxtaposi-

tion. You read guide-books and rejoice in the acquisition of knowledge. Gradually through the perception of the same phantasmagoria comes an at-oneness with your fellows. You are caught up in the swirl of a larger self.

Soon you weary of the heterogeneous. The Zone of Consciousness stands revealed in all its grotesqueness. "Time is," you cry, but to give thought its impulse, and you hasten on, if perchance you may discover the direction of the life-principle. What you had taken for reality is but its cross-section — so does this empirical realm stand to the higher world of your spirit, even as a plane to a solid.

Now you turn your attention from things to relations in the hope of getting at truth in the large. A passage in Plato comes vividly to your mind. "For a man must have intelligence of universals, and be able to proceed from the many particulars of sense to one conception of reason; — this is the recollection of those things which our soul once saw while following God, when, regardless of that which we now call being, she raised her head up towards the true being."

Henceforth the multiplicity that you seek is one of organisation and has nothing to do with number. "Time was," you proclaim, that consciousness might sift out the irrelevant. As you pass from collection to collection, individual fact becomes prolonged into general law, and science dominates the field of thought. A thousand years are as a day when sub-

sumed by the universal. You look at the objects of man's creating with new eyes. The displays are no longer contests of laborious industry but of vision and faith. You see that truth has made itself manifest through the long repetition of the same fundamental theme. That which is unique and personal you are surprised to find of less value than the habit perfected by patient practice. The routine and monotony of daily toil become glorified in the light that now falls athwart your vision. You learn to substitute for your personal feeling the common impersonal element felt by the many. Your concern is not as formerly to recollect, but to symbolise. To this end you study frieze and statuary, and frequent lectures. Your sense of social solidarity grows through mutual comprehension of the same truths.

And again that "vexing, forward reaching sense of some more noble permanence" urges you on. "Time was," you joyously affirm, for man to come to the knowledge of an eternal self. But that, your tradition and education have led you to believe, is still yonder, worlds away. And you image the soul in its quest passing from life to life as you are now passing from building to building, from hall to hall. But blessed the thought — there will be courts wherein you may perhaps glimpse the plan of the whole and so gather strength and purpose for another housing. All at once you know that death has no fear for you and you feel toward your present life

as you do toward these Palaces of the Mundane — the sooner compassed the better.

You pass from court to edifice and from edifice to court, marvelling at the symmetry of plan and structure. Unity, balance, and harmony become manifest as spatial properties — you had been taught to regard them as principles of art. You wonder if art itself may not be merely a matter of right placing — the adjustment of a thing to its environment. You are certain that this is so as each coign and niche offers you its particular insight. Strange vagaries float through your mind — one's duty to the inanimate things of one's possession; the house too large for the personality of the owner; the right setting for certain idiosyncrasies — each pointing the way, as you think, to a different vista of human outlook. What then your glad surprise to find these converging toward one ideal synthesis! In anticipation of the splendour you hasten on till earth shall have attained to heaven. There it stands — “a structure brave,” the Palace of Art, the Temple of the Soul — and you know you were made to be perfect, too.

Now that you apprehend the plan of the beautiful conception spread before you, symmetry takes on a vital significance for your thought. You try to recall what you learned of it in geometry. There was a folding over, you remember, and a fitting together — “congruence” you believe it was called. But that could have no meaning for solids. Stop!

A folding over? Why, that implies another dimension! The two halves of a leaf can be brought together only as one or the other is lifted out of the plane of the leaf into a third dimension. So to bring two buildings into superposition when they are alike except for a reverse order of parts, would necessitate a fourth dimension and a turning inside out. Quick as the thought, the court you are in is that — a building inside out!

Ah! you know now wherefore that wonderful uplifting sensation that comes whenever you enter one of these beautiful enclosures. You have passed into the fourth dimension of spatial realisation. "Time is past," you shout aloud, and laugh to find yourself on the inside of externality. Cubism in architecture! Futurism, in very truth!

You visit again the galleries of the New Art, in earnest desire for enlightenment as to this thing which is so near to consciousness and yet so far! As you gaze at the portrayal, strangely weird in form and colour, you ask yourself, "Where have I felt that, seen this, before?" Immediately you are transported in memory to the midst of a crowded street. In the mad bustle and noise you are conscious only of mechanical power; of speed — always of speed. Your voice far away — "The child, oh, the child!" A swooning sensation! Men's faces as triangles, and horses with countless feet! The chaos of primal forces about you — then darkness!

As the past fuses with the present you awaken to a larger privilege of life than man now knows. You feel yourself encompassed by truth, vital and strong. This art, erstwhile most baffling, stands revealed as the struggle of a superhuman entity for self-expression. The tendency toward God has to begin anew with each round of the life-spiral — hence the apparent reversion to primitive art.

As the day closes you find yourself in the Court of the Universe. Bands of many-coloured light, the white radiance of eternity, stream athwart the sky. The illumination is of the wonder that now is. How marvellously strange the sight of the world-consciousness passing over into a higher thought-form! Each individual element suffering reversal to take its proper place in the new world-order! You see positive becoming negative, negative becoming positive, and Evolution giving place to Involution — a process as yet uncomprehended by our narrow thought. And the secret of the world-struggle across the sea you know: men passing their nature's bound; new hopes and loyalties supplanting old ties and joys; the established creeds of right and wrong as they vanish in this unmeasurable thirst for an unknown good. All these things you know to be the travail of the world as it gives birth to some higher entity than individual man.

“Time is past,” and as you speak a dove settles to rest upon a pediment. Therewith you are carried

away in the spirit to a great and high mountain and you behold a new heaven and a new earth; for the first heaven and the first earth are passed away. You see the holy city descending out of heaven — her light is like unto a stone most precious, as it were a jasper stone, clear as crystal, and the walls thereof are adorned with all manner of precious stones — and they shall bring the glory and the honour of the nations into it.²

² See *Revelation*: Chapter XXI.

CORROBORATIVE READINGS

CORROBORATIVE READINGS

It has been lamented that the fame of so great a scientist as Roger Bacon should rest upon an absurd legend. I think we shall see that the legend bears evidence to the greatness of the man. It runs as follows:

Friar Bacon, reading one day of the many conquests of England, bethought himself how he might keep it hereafter from the like conquests and so make himself famous to all posterity. This (after great study) he found could be no way so well done as one; which was to make a head of brass, and if he could make this head to speak (and hear it when it spoke) then might he be able to wall all England about with brass. To this purpose he got one Friar Bungey to assist him, who was a great scholar and magician (but not to be compared to Friar Bacon); these two with great study and pains so formed a head of brass that in the inward parts thereof there was all things like as in a natural man's head. This being done they were as far from perfection of the work as they were before, for they knew not how to give those parts that they had made motion, without which it was impossible that it should speak. Many books they read, but yet could not find out any hope of what they sought, that at the last they concluded to raise a spirit and to know of him that which they could not attain by their own studies.

The spirit straight obeyed, and appeared unto them, asking what they would. He told them that with a con-

tinual fume of the six hottest simples it should have motion, and in one month space speak: the time of the month or the day he knew not. Also he told them that if they heard it not before it had done speaking, all their labour should be lost.

Then went these two learned Friars home again and prepared the simples ready and made the fume, and with continual watching attended when this Brazen Head should speak. Thus watched they for three weeks without any rest, so that they were so weary and sleepy that they could not any longer refrain from rest. Then called Friar Bacon his man Miles, and told him that it was not unknown to him what pains Friar Bungey and himself had taken for three weeks' space only to make and to hear the Brazen Head speak, which if they did not, then had they lost all their labour, and all England had a great loss thereby. Therefore he entreated Miles that he would watch whilst that they slept and call them if the head spake. "Fear not (good master), I will hearken and attend upon the head and if it do chance to speak, I will call you; therefore, I pray take you both your rest and let me alone for watching this head." After Friar Bacon had given him a great charge, Friar Bungey and he went to sleep and left Miles alone to watch the brazen head. Miles, to keep him from sleeping, got a tabor and a pipe, and being merry disposed, sang this song to a northern tune:

To couple is a custom all things thereto agree;
Why should not I then love, since love to all is free?

Though virtue be a dowry, yet I'll choose money store;
If my love prove untrue, with that I can buy more.

Come, fiddler, scrape thy crowd for Peggie the brown is
she,
Must be my bride, God guide, that Peggie and I agree.

With his own music and such songs as these he spent his time and kept from sleeping. At last, after some noise, the Head spake these two words: "Time is." Miles, hearing it to speak no more, thought his master would be angry if he waked him for that, and therefore he let them both sleep and began to mock the Head in this manner: "Thou Brazen-faced Head, hath my master took all this pains about thee and now dost thou requite him with two words. 'Time is.' Had he watched with a lawyer so long as he hath watched with thee, he would have given him more and better words than thou hast yet. If thou canst speak naught else they shall sleep till doom's day for me. 'Time is'; I know 'time is' and that you shall hear, good man Brazen-face.

Time is for some to plant, time is for some to sow;
Time is for some to graft the horn as some do know.

Time is for some to eat, time is for some to sleep,
Time is for some to laugh, time is for some to weep.

"Do you tell us, Copper-nose, when 'time is,' I hope we scholars know our times, when to drink drunk, when to kiss our hostess, when to go on her score, and when to pay it — which time comes seldom."

After half an hour had past, the Head did speak again two words which were these: "Time was." Miles respected these words as little as he did the former and would not wake his master, but still scoffed at the Brazen Head, that it had learned no better words, and have had

such a tutor as his master; and in scorn of it sung this song:

Time was when thou a kettle wert filled with better
matter,
But Friar Bacon did thee spoil, when he thy sides did
batter.

Time was when conscience dwelled with men of occupa-
tion;
Time was when lawyers did not thrive so well by men's
vexation.

Time was when kings and beggars of one poor stuff had
being;
Time was when office kept no knaves, that time it was
worth seeing.

Time was a bowl of water did give the face reflection;
Time was when women knew no paint, which now they
call complexion.

“‘Time was!’ I knew that, Brazen-face, without your telling. I knew Time was and I know what things there was when time was, and if you speak no wiser, no master shall be waked for me.” Thus Miles talked and sung until another half hour was gone; then the Brazen-Head spake again these words: “Time is past”; and therewith fell down and presently followed a terrible noise, with strange flashes of fire, so that Miles was half dead with fear. At this noise the two Friars waked and wondered to see the whole room so full of smoke, but that being vanished, they might perceive the Brazen Head broken and lying on the ground. At this sight they

grieved, and called Miles to know how this came. Miles, half dead with fear, said that it fell down of itself and that with the noise and fire that followed he was almost frightened out of his wits. Friar Bacon asked him if it did not speak.

“Yes,” quoth Miles, “it spake, but to no purpose.”

Time is, and all the detail of the world confounds
The plastic mind. With multitude of shapes and sounds
Do the swift elements of thought contend
To form a whole which they may comprehend
Only to those of high intent
Is life revealed, and quick dreams sent —
Half glimpsèd truths omnipotent.
Out of the silence of an unborn space
A spirit moves, and thought comes face to face
With the immutable, and time is past,
And the spent soul, alone, meets truth at last.
Chance, fate, occasion, circumstance,
In interfusèd radiance
Are lost. Past, present, future, all combined
In one sure instantaneous grasp of mind,
And all infinity unrolls at our command,
While beast and man and God unite, as worlds expand.

— ORMEIDA CURTIS HARRISON.

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