CHAPTER 3

TEILHARD’S THEORY OF EVOLUTION

“The universe awaits the finished man,
The tree of life has still its final height to climb,
Unending years demand some focal point of time:
This thou hast given, O Lord.”

Teilhard de Chardin was a scientist, philosopher and theologian by academic attainment, and religious by life, practice and profession. As a scientist, Teilhard dug into man’s past with the empirical data provided by palaeontological research, geological survey and scientific analysis. As a philosopher, he interprets the nature of man, his place in nature and his ultimate nature. As a staunch believer in God, his vision regarding the future of man his vision is consistent with the religious belief.

Fundamentally, he was convinced of the feasibility of adapting an evolutionary and humanist point of view. Teilhard tried to synthesise the evolutionary theory with Christian theology.

George Appleton et al. The Human Search -Teilhard de Chardin. (Glasgow: Collins, 1979) p. 145
His major theoretical work, *The Phenomenon of Man*, is a study of the continuity and emergence of evolutionary development and the emergence of humanity from the animal realm.\(^2\) *The Divine Milieu* presents two basic principles in the evolution of organic matter: nonfinality and complexification. These explain why homo sapiens are unique in resisting division into further species.\(^3\) Both works include transcendental speculations to prove God’s existence.

Teilhard was influenced by both science and religion in his evolutionary theory. In science, two famous scientists, Galileo and Darwin, influenced him. The first discovered the movement of the earth, while the second stated its evolution. Teilhard was attracted by their discoveries and assimilated that spirit into his science. The outcome was his deep faith in the theory of evolution, which served as the basis for the whole edifice of his thought. He was captivated by Newman’s Apologia. It was Newman’s invitation to reconcile the love of God with the love of life in all its natural forms that appealed to Teilhard most. Teilhard was influenced by

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\(^2\) Teilhard de Chardin, *The Phenomenon of Man*. (Glasgow: Collins, 1959) p. 15

\(^3\) Teilhard de Chardin, *The Divine Milieu*. (Glasgow: Collins, 1960) p. 10
Bergson’s philosophy, Benson’s mystical spirituality, and William James’ descriptions of religious experiences. Edouard Le Roy was an intimate friend of Teilhard. There was a bond between Teilhard and Blondel, whose style can be seen in his poetical writings. In the field of religion, St. Ignatius influenced him. His idea of man was created to know God, to serve and love Him and so to attain eternal life. Teilhard was indebted to St. Paul for his cosmic vision of the divine and the ultimate consummation and restoration of everything. The doctrine of St. John also had great impact on him. Teilhard has also developed a number of ideas and images which find more or less close parallels in the various strands of Hindu philosophy. The Hindu theory of avātars can also be found embedded in his theory.

“For every action there is an opposite and equal reaction”.  

Teilhard was particular to introduce the reverse of the evolution theory. The world is in a process of organic involution upon itself. And it is the involution from the extremely simple to the extremely complex. It is bound up with a correlative increase in

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interiorisation. If God has to make a soul, then he must make a world and, that too, a progressive world. Starting from nothing, a system of participated being must be erected, which is gradually more capable of sustaining the creative action. Through the perennial action of communion and exaltation he makes on himself the whole of the earth's psychism. When he has thus gathered all together and transformed all, he will re-unite himself in a final act with the divine centre. Finally, there will be nothing but God all in all.

“Evolution is a light illuminating all facts, a curve all lines must follow”.\(^5\) It is a movement toward an increasing amount of spiritual energy in matter that is more powerfully synthesised. The physical world is made up of atoms; these are organised as structure of structures. The more complex beings are organisations of less complex beings which, in turn, are organisations of the basic atoms. From the lowest and least stable nucleus elements up to the highest living being, nothing exists. Nothing in nature can be an object of scientific thought except as a function of a fast and single combined process of corpusclisation and complexification,

\(^5\) George Appleton.et.al, Op.Cit., p.54
the course of which can be distinguished as the phases of a gradual and irreversible interiorisation which is known as matter. Evolution is an ascent towards consciousness culminating in some sort of supreme consciousness. Consciousness is not shattered by diffusion, but is heightened by involution. Šaktism gives Teilhard strong support of this reconciling view. The lines of the grand cosmic evolution are in its systems. Both see evolution as a union of discontinuities. Teilhard argues the fact that the universe grows by passing through steps characterised by irreducible novelty. It does not imply any break in the phenomenal, physical or psychic unity of the world. It is one great cosmogenesis which expands from geogenesis to biogenesis, then to psychogenesis, to noogenesis, and finally to christogenesis. Šaktism reaffirms that all that exists, whether as mind, life and matter, are forms and products of the one fundamental substance power which is cit-šakti, or consciousness as power, which is bliss. Sāṁkhyya also bears an interesting resemblance to Teilhard’s scheme. This
concerns the relation of *puruṣa* to *prakṛti*, somewhat like the relation of omega to the cooling world stuff.

Teilhard’s theory stands in line with theological theories of evolution. It is a globular or spiritual theory. “Christ is the Instrument, the Centre, the End, of the whole of the animate and the material creation; through Him everything is created, sanctified and vivified.”⁶ They represent an organic relation or a relation of whole and part. Teilhard gives a conical view of the universe with the spirit as its apex and the discrete material particulars as its base. There is a discontinuous ascent along a central axis. At each stage there is a total heaving up. That results in the formation of a conical layer. First there is the geosphere, then the biosphere, the noosphere and the christosphere capped up by the point – omega. The impression is that the whole creation is drawn towards or is hanging from the peak- point. The position admirably fits in with the Christian theology. According to Teilhard,

“Evolution = Rise of consciousness, 
Rise of consciousness = Effect of Union”⁷.

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The divine love is the cohesive force that knits together the world of multiplicity. As evolution progresses, there is the descent of God’s grace followed by the ascent of the world movement. The universe is the revelation of the spirit. God is being revealed in His works. Teilhard’s concept of evolution gives an insight into his soul-stirring mysticism.

Teilhard’s conception of evolution is a linear and pyramidal progression. Cosmic evolution is not continuous. There are critical points in the process. The critical point of emergence is preceded by what Teilhard calls a film formation. There are thus various spheres deposited one above the other. He borrows the term ‘sphere’ from geology. The term refers to an interior coherence and a universal extension. The biosphere is a cohesive whole of a living film.

Teilhard’s totality of time and space is the domain over which the divine action extends, through which God's glory radiates and His being shines all the more clearly and vigorously. The modern concept of a universe in evolution, or of the intimate
association of time and space, makes it easier to vindicate the kingship of Christ and to reconcile harmoniously the two dominations of experience and faith. In a universe of conical structure, Christ has a time ready for him to fill, where his spirit can radiate through all the centuries and all beings. And because of the genetic links running through all the levels of time and space between the elements of a convergent world, the Christ influence, far from being restricted to the mysterious zones of grace, spreads and penetrates throughout the entire mass of nature in movement.

Evolution is a process of complexity. By the word 'complexity' Teilhard does not mean simple aggregation which is any assembly of non-arranged elements, nor does he mean a geometric repetition such as we find in the astonishing and universal phenomenon of crystallisation. Evolution expressed in terms of complexity does not exactly correspond to a transition from the homogeneous to the heterogeneous, but to a transition from a dispersed heterogeneous (lacking unity) to an organic (unified) heterogeneous. Teilhard strictly confines the meaning of
the word combination to “particular higher forms of groupings whose property is to knit together upon themselves a certain fixed number – whether great or small, matter little of elements with or without the secondary addition of aggregation or repetition – within a close whole of determined radius: such as the atom, molecule, the cell, the metazoon etc”.

We will define the complexity of a thing as the quality the thing possesses, as being composed “of a larger number of elements, which are more tightly organized among themselves”. In this sense, an atom is more complex than an electron, a molecule more complex than the highest chemical nuclei of which it is composed. The difference depends not only on the number and diversity of the elements included in each case, but at least as much on the number and correlative variety of the links formed between these elements. It is not a matter of simple multiplicity out of organised multiplicity, not simple complication but centred complication. These are the two advantages for this. First, in the

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multitude of things comprising the world, an examination of their
degree of complexity enables us to distinguish and separate those
which may be called 'true natural units,' the ones that really matter,
from the accidental pseudo-units. Secondly, the coefficient of
complexity further enables us to establish, among the natural units
which it has helped us to 'identify' and isolate, a system of
classification that is no less natural and universal.\textsuperscript{10} Thus, it is a
transition from a lower to a higher state of centro–complexity.

Teilhard advocates a grand orthogenesis of everything
living towards a higher degree of spontaneity. The basic themes of
this crucially important concept were present in his work, out the
notion of creative union during the time of war. "The universe is
committed to a becoming, which gradually constitutes it in its
destined form, the most perfect elements of the world being
produced in succession through the less perfect, starting from lower
states of existence ... It is refinement of psychism that determines
the true, absolute, position of the monads in the ascending series of

\textsuperscript{10} ibid., p. 110
beings.”¹¹ We find in his phenomenon of man a mature formulation of this law of consciousness and complexity. It is in man that consciousness level is completely evident. “The degree of concentration of a consciousness varies in inverse ratio to the simplicity of the material compound lined by it. Or again: a consciousness is that much more perfected according as it lines a richer and better organised material edifice. Spiritual perfection (or conscious ‘centricity’) and material synthesis (or complexity) are but the two aspects or connected parts of one and the same phenomenon.”¹² With the aid of a geometrical model, he tries to clarify the meaning of this complexity – principle. “From this aspect one might say, that on the phenomenal plane, each being is constructed like an ellipse on two conjugate foci: a focus of material organisation and a focus of psychic centering – the two foci varying solidarily and in the same sense.”¹³ The image of ellipse illustrates very clearly the dipolar structure of beings and at the same time underlines the intimate relationship between the


¹³ ibid
mutual developments of the conjoined poles. Through the increasing complexity of organisms and finally, of the nervous system, there is a rise of consciousness.\textsuperscript{14} Pascal’s two infinites, the two abysses of greatness and inferiority, must not only be supplemented but opposed by a third which reverses the whole situation: the infinite of complexity.\textsuperscript{15} The third abyss is one of synthesis. It lies in a third direction, other than that of fragmentation and agglomeration, the mesmeric depths of a matter, which at a minimum volume, contrives limitlessly to build upon itself at the very heart of our own selves.\textsuperscript{16} This third abyss of synthesis succeeded in borrowing itself in man in whom evolution finally becomes continuous of itself.

The fact that consciousness and complexity of organisation go hand in hand is taken by Teilhard as a ‘parameter’, a yard stick,

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\item \textsuperscript{14} Teilhard de Chardin, \textit{Man’s Place in Nature}. Op.Cit., p. 20
\item \textsuperscript{15} ibid
\item \textsuperscript{16} R.C. Zachner, \textit{Activation of Energy}. (London : Oxford Clarendon press, 1971) p.28
\end{itemize}
which allows us to follow the course of evolution and to connect both the internal and the external films of the world. Thus, according to Teilhard, throughout the whole, long, evolutive process, there is a gradual growth of psychic manifestation supported by the steady advance to perfection of the nervous system and reaching its point of climax in man. This law of complexity is based on a fundamental premise that reality is essentially dipolar in structure and that matter and spirit are not antagonistic to one another, but rather constitute complementary principles in the constitution of being. Teilhard did not even hesitate to speak of matter as “the matrix of consciousness” and consciousness as being “born from the womb of matter.”

The law of complexification bridges the gap between the physical and the mental. Teilhard admits the reality of both the physical and the spiritual aspects. They are different views of the same reality, the complex outside of things and the psychic ‘within’, which all things possess in some measure. Teilhard says spiritual perfection and material synthesis are but the two aspects

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17 ibid., p. 21
or connected parts of one and the same phenomenon. Things have their ‘within’ and this appears to stand in definite qualitative and quantitative connections with the developments that recognise the cosmic energy. The degree of consciousness depends upon the degree of complexity, the higher the level of complexity, the higher the level of consciousness. This Teilhard calls the Law of Complexity-Consciousness. This law brings within its purview the least complex sub-atomic particle as well as the most complex higher animals. He coins the word concentration to refer to this complex organisation that includes interiority. Side by side with his doctrine of the without and the within of things, Teilhard introduces the idea of energy. All energy is psychic in nature. But this fundamental energy is divided into two distinct components: a tangential energy which links the element with all others of the same order, with the same complexity and the same centricity; a radial energy which draws towards a greater complexity and centricity. “The two energies - of mind and matter - spread respectively through the two layers of the world (within and without). They are associated and pass into each other. It is difficult to establish a simple correspondence between their curves.
But only a minute fraction of physical energy is used up in the highest exercise of spiritual energy. This minute fraction, once absorbed, results in the internal scale in the most extraordinary oscillations."² Tangential energy represents mechanical energy, and radial energy corresponds to spiritual energy. Both these energies are different forms of the same energy. Tangential energy gradually exhausts itself and follows the laws of entropy. Inspiration for this theory came to Teilhard, from the second theory of thermodynamics. Its operation does not end in the depth of the universe because a single energy holds everything along its main axis. The Omega Point draws everything towards itself.

Teilhard illustrates the theory by the example of boiling water. If heat energy is constantly added to liquid water, the temperature of the water will increase at a constant rate until the boiling point is reached. Then, as more energy is added, no change at all takes place for a while, until a sufficient quantity of energy has been added, when suddenly the liquid water at boiling temperature changes into gaseous water at the same temperature.

From a change in degree there has been a passage to a change of state. This rule can be verified on all levels of reality. Critical speeds produce changes in man. Critical masses of radioactive materials set off nucleus explosions. Critical size of embryonic cells stimulates cell division. Critical build-up of electrical charge on a neutron triggers discharge to neighboring cells. Extending this image to the evolutionary process, Teilhard suggests that an accumulation of elements organised in a given way will persist only to a certain point. At this print, there will be a sudden leap or breakthrough to a new type of arrangement which will assimilate the former arrangement as an element in the new organisation. Because the pressure to expand and to unify is always present and never decreases, it is inevitable that such leaps should occur.19

Teilhard describes three ways of evolutionary change or mutation. They are dispersion,20 radiation21 and canalization.22 In

20 Mixture of one substance dispersed in another.
21 The emission of energy.
22 Conversion.
the first two, mutation is not continuous but periodical. The straightest series are actually made of a host of little overlapping shoots, corresponding each to a separate form. Thus these forms replace one another like tangents along the line of a curve.

Teilhard divides the entire sphere into four. They are geosphere, biosphere, noosphere and christosphere (theosphere). Each stage merits separate treatment. The lower spheres are characterised by less complexity and the higher stages by more complexity. The characteristic features of the geosphere, biosphere and noosphere are given on the basis of the current theories of the physical sciences. Here theology is not bought into purview.

Never on earth before has such a quantity of living matter reached so high a state of fermentation. "Matter ... is the assemblage of things, energies and creatures which surround us in so far as these are palpable, sensible and 'natural'... Matter is the common, universal, tangible setting, infinitely shifting and varied, in which we live."23 Matter had always had a history. It is subject

23 George Appleton.et.al., Op.Cit., p. 110
to a genesis; it is in process of ascending towards higher states. Matter is the matrix of the spirit. Matter is a limitless source of energies, with the potentiality to produce forms in which it will go beyond itself. The world, according to Teilhard, seems to fall forwards and upwards upon the spiritual and this is because it is already in its heart, permeated by vital energy and endowed with a minimum degree of consciousness and interiority. The materialistic sciences with their externalised views of nature posit to the existence of an amorphous immensity of matter. Material immensity has a within. An analogous treatment is seen in Leibniz concept of the monads. Every existing thing, however insert it might seem, is, according to Leibniz, a colony of monads showing a soul, a within. The concept of the within becomes meaningful only when the basic principles involved are analysed. Material existence is not a homogeneous mass. Modern science has revealed that there are innumerable atoms differing in size and structure. Teilhard says that they form 'organised multiplicity'. The isolated discrete particulars undergo complexification. Complexity is not simply a sum but a synthesis, as the simplest, hydrogen atom under the extreme conditions found in the stars, to build larger atoms.
Complexification is inherent in the nature of the cosmos and is in the direction of evolution. Cosmogenesis is evolution, and evolution is complexification; this is the basic and innate tendency of the universe. Matter created for itself, structures of greater complexity, at the same time a pre-requisite condition of life.

The multiplicity of simple material substances is what Teilhard calls the stuff of the universe. The elemental state of material existence has three phases – plurality, unity and energy. The plurality of the universe is evident in its atomic character. It is visible in raindrops and in grains, sand, in the hosts of the living and the multitude of stars. We have progressed far from the atomic theories of Epicurus and Pascal. Every new stride of scientific research brings to light particles of matter which are more finely granulated. The old concept of light, colour and warmth evaporates into thin air, in the light of such penetrating search. However, all these theories evidence the existence of a plurality. The minute material particles, whether they are atoms or electrons, manifest a perfect identity of mass and of behaviour. It is not a unity of homogeneity but a collective unity. A mysterious identity cements
the juxtaposition of atoms. This connecting bond may be called energy. It is a measure of that which passes from one atom to another in the course of their transformation. The energy theories tend to view that the plurality is held together from below.

Any theory of the universe must take into account the total matter; it cannot be studied by breaking it up into fragments. The division of matter is merely an intellectual dodge. At any moment, we have to consider the total matter. Teilhard expresses his concept of matter in three suggestive phrases: a system, a totum and a quantum: a system by its plurality, a totum by its unity, a quantum by its energy. The different parts of the universe are independent. Each element of the cosmos is woven from all the others. The different combinations are such that they can be arranged pyramid-like and made subsistent through the apex of an organised whole. If we isolate the parts, they become frayed and unravelled at all their edges. The universe, in other words, is a system, a one-of-many. At the same time, the universe is not, 'a mere entanglement of articulated inter-connections. It is not like a crystal whose structure is wholly contained in a single mesh. The envelopes composing
matter are thoroughly heterogeneous. Electrons, simple bodies, molecular combinations, the stars and galaxies present a wonderful variety of these envelopes. The third phrase, ‘quantum’ signifies the space itself. We have, thus, to redefine energy with reference to the space as a whole. The universal space is the only space there is. This immensity represents the sphere of action common to all atoms. The universe, no doubt, is a quantum of energy. But its dynamism has significance only when we relate it to duration. This idea takes us to the problem of evolution, which is another characteristic of the universe to be reckoned with, in any worthwhile cosmology.

“To our opened eyes each element of things is henceforth extended backwards (and tends to be continued forwards) as far as the eye can see in such a way that the entire spatial immensity is no more than a section ‘at the time t’, of a trunk whose roots plunge down into the abyss of an unfathomable past, and whose branches rise up somewhere to a future.”\(^{24}\) The world from this new point-of-view appears like a mass in process of transformation. The

universal totum and quantum define themselves in cosmogenesis. In this world process more and more complex forms emerge. But the fundamental discovery, that these complex bodies own their origin to arrangements of a single initial corpuscular type, is the beacon that lights the history of the universe to our eyes. It is true that we are ignorant of many points in the history of the world. Nevertheless, one thing is certain and is enough to guide our steps along the ways of anthropogenesis Teilhard believes that the transformation of matter is subject to some numerical laws.

The first principle he suggests is that during changes of a physico-chemical type we do not detect any measurable emergence of new energy. The second is that in every physico-chemical change that adds to thermodynamics, a fraction of the available energy is irrecoverably ‘entropised’, lost that is to say in the form of heat.25 Something is finally burned in the course of every synthesis in order to pay for that synthesis. The principles of the conservation and dissipation of energy signify that the improbable combinations are little by little broken down into the shapelessness

25 ibid., p. 55-56
of probable distributions. The vision Teilhard wants to impress upon us is suggested by metaphors: a rocket rising in the wake of time’s arrow that only bursts to be extinguished, an eddy rising on the bosom of a descending current – such, then, must be our picture of the world.

This scientific theory of the universe is in effect pessimistic. Since every synthesis is a drain upon the energy-quantum of the world, progress foreshadows the death of the world. Science is driven to this conclusion because it has, as Teilhard says, never troubled to look at the world from within. This concept of the within of things is most significant in Teilhard’s phenomenology. It is this concept that enables him to bridge the gulf between matter and life. If the within of things is recognised, Teilhard hopes that the materialistic and the spiritual interpretations of the universe will soon unite in a kind of phenology or generalised physics, in which the internal aspect of things as well as the external aspect of the world will be taken into account. Things have their within. The without and the within of things roughly correspond to their quantitative and qualitative aspects.
Life is, through a constant pressure, dominating and bringing together the forces of determinism. It is striving to bring about more spiritual interiorities as though the driving force of this animal upsurge was the demand not only to think but also to act with more freedom. The appearances of the biological forms, after lengthy preparatory states, have emerged from material structure; the history of life discloses a transformation of organisms in a determined direction. Elementary life is a multitude of microscopic elements great enough to envelop the earth and at the same time sufficiently interrelated to form a structural whole of genetic solidarity. The biosphere thus represents a single branch. The earth is, however, more than a sort of huge breathing body. It is bending towards some final state. Earthly evolution becomes evolution towards divinity. All life has been struggling toward more and more consciousness. Something both continuous and irreversible is going on.

Evolution is primarily physical transformation. The envelope of biosphere spreads its web by the mechanism of reproduction, multiplication, renovation, conjugation, association,
etc. Reproduction ensures the permanence of the unstable molecular edifices. Through a process of self-defence at first, it subsequently becomes a prelude to a vast conquest. The process of cell division is one of renovation and shedding. The living cells tend to conjugate or to get together to form ever-increasing products. The bacteria, the metazoan, the cells, are ascending groupings of life. The phenomenon of additivity intervenes and acts as a vertical component of the processes of reproduction, conjugation and association. Reproduction achieves something more than mere substitution. This law of controlled complication is called orthogenesis. Grouping profusion, constructive ingenuity, indifference towards whatever is not future, and totality—these are, according to Teilhard, the main ways in which life rises up by virtue of its elementary mechanisms.

The living substances spread over the earth to give rise to a global unity. Life's advances go along with segmentation. As life expands, it splits spontaneously into large, natural, hierarchical units. Three factors contribute to the drawing up of the branches of life. The first is the aggregate of growth. In the process of
diversification the fibres of a living mass tend to draw together, to bind, following a restricted number of dominant directions. The species has become individualised and the phylum has been born. The phylum is a collective reality which is polymorphous and elastic. It has a dynamic nature. The second is florescence of maturity. A new type will not attain its most efficient form all at once. Perfection comes only after a period. The third is the effects of distance. This factor causes the exaggeration of the apparent disperson of the phyla and the suppression. Life born through the cells propagates itself in a unique way. The cells constitute the roof of the 'tree of life'. Monocellulars, multicellulars, plants, fishes, amphibians, reptiles, birds and mammals have evolved, finally reaching up to man. The distinction is a well-marked progress in the development of the brain.

The mainstream of life further passes through the channel of the mammals, the placentals and finally the primates. An evolutionary break of the first order was heralded by the cellular revolution. There was a process by which larger amount of matter agglomerated into a single unit. In the centre of this grouping, a
nucleus containing chromosomes was seen against the background of the surrounding cytoplasm. The cell has reached a higher stage in complexity and interiority. The explosion of the internal energy favoured the emergence of a super-organisation of matter. The mega-molecules must have developed very slowly, for the formation must have extended to a mass of matter large enough to constitute an envelope of telluric dimensions. Consequently, the duration required for the formation of proteins was very long. A critical point concludes and closes the mega-molecular age. The movement of the cosmos is towards higher and higher degrees of consciousness. At a critical point life emerged. It continued to move until it emerged into thought.

Science has made its greatest advances when stimulated by some particular problem of life needing a solution. And its most sublime theories would always have drifted, rootless, on the flood of human thought, if they had not been promptly incorporated into some way of mastering the world. Accordingly, the march of humanity, as a prolongation of that of all other animate forms, develops indubitably in the direction of a conquest of matter put to
the service of mind. "Increased power for increase action, but finally and above all, increased action for increased being".\textsuperscript{26} Mind does play a part not only with its technical organisation but also with its purposive and affective powers of arrangement and inner tension.

Teilhard's unwavering faith in the future of man lies at the heart of his thinking, a natural corollary to his belief in an evolving world of which Christ is the guide and invigorator. The process would appear, in reality, to be made up of two inverse involutions. One starts from the immensely large and divides the stuff of the cosmos egg relatively into continually smaller fragments (stellar involution – from nebulae planets). The other stars in the infinite and produces through (structural complexity) continuously larger corpuscles (atomic evolution – from atoms to living creatures and man). Both involutions (stellar and atomic) meet in the case of the human noosphere, in which the organic mega – corpuscle (mankind) becomes co-extensive with its astral support. Evolving consciousness has reached its present height in the human being.

\textsuperscript{26} ibid., p. 274
But this is not the end in one sense or another. Almost every Hindu tradition would agree with him, for all seek some kind of advance over the present state of human experience. The ultra-human, inferred by extrapolation of the curve of man's growth, is only the temporal and earthly aspect of the mysterious and religious reality which transforms it into the 'trans-human'.

Man is the spearhead of evolution and as such the most complex of all creatures. He is the apex, the king and crown of creation. The responsibility for the future evolution rests with man. With his creative partnership in the construction of this earth, he has to reach the ultimate in the omega. The omega is in, and beyond, evolution. It is immanent and transcendent. It is the socialising fulfilment of human persons. Teilhard created a new image of man. Man, by his very nature, has the necessity of living his life in two worlds – the world of matter and that of spirit. The world of spirit is transcendent. In it we have to attain a higher synthesis whereby we merge into more elevated realms of our being. Man bridges the gap between God and world.
With the advent of the power of reflection, everything has changed. From the organic point of view, the whole metamorphosis leading to man depends on the question of a better brain. Man is reflective in nature. "Human reflection is not an epi-phenomenon of the organic world, but the central phenomenon of vitalisation." Reflection consists in knowing that one knows which is the power acquired by a consciousness to turn in upon itself. It helps man's individualisation of himself in the depths of himself. Man's place in the cosmic scheme becomes evident only if one considers the within as well as the without of things. Then only the direction of evolution becomes clear. Man's outward change may not be surprising. When consciousness unfolds upon itself, the entire structure of life becomes modified. The phylum becomes charged with psychism. This results in the personalisation of the individual by the huminisation of the entire species. The confluence of thought is facilitated by two factors of which one is external and the other internal. The external factor facilitates the internal.

Psychogenesis, which has led to man, effaces itself by a higher function-noogenesis. The area of noogenesis marks another

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zonal composition of our planet. Teilhard believes that the term 'thinking layer' most appropriately describes the phenomenon. With hominisation there is the beginning of a new age. Life re-groups itself in multitude. Reality, to Teilhard, presents itself to experience as an immense complexity of phenomena forming one’s structural whole. His philosophy is for this reason called phenomenology. He keeps his feet firmly grounded on the plain of existence. Teilhard’s aim is not to produce a metaphysical system but a realistic ultra-physics. He studies not only the phenomena, but also the whole phenomena. His method of empirical metaphysics, on the other hand, proceeds entirely a priori. His system is a scientifically elaborated philosophy of nature, which does not pretend to dwell on ontological explanations of the universe. He does not see it simply as a biological idea, which can encompass every level of existence. It can explain the genesis of the stars and history of human institutions. The universe is no longer an order but a process. The cosmos has become a cosmogenesis. The universe is committed to a becoming. The world presents itself to us not only as a system in motion but as a system in process of becoming and upward growth. A remarkable
line of difference that distinguishes Teilhard’s conception of evolution is that he sees humanity as the key to the whole question of evolution. The phenomenon of man is of capital and central importance for arriving at a right concept of the world.

The noosphere is not only a closed world but is also centred. Each enormous layer must become emerged to a point which Teilhard calls Omega. All the layers, at this point, become fused and consumed integrally in it. All the immensities are concentrated at this point. When we reach the threshold of reflection, there takes place an internal deepening of consciousness upon itself. The synthesis affects the element as well as the sum of the elements. These two movements are really the two aspects of the same movement that works towards the Omega point. Mere collectivism or mass movement will not give us a complete picture. The socialist society which Marx envisages is only a passing stage. There should be an absolutely original centre in which the universe reflects itself in a unique way. We are the very flame of that torch. It should be the very centre of our consciousness, deeper than all its radii.
The Omega of Teilhard is not the impersonal Brahman of *vedāntic* thought, or the super-mind of Aurobindo. Teilhard’s Omega is personal and love is the means of becoming one with him. The power of Omega is like that of a magnet. It draws everything to it. It is the divine in whose bosom mankind finally ought to rest. When human beings unite with the Omega they become ‘hyper personal’. The Omega has not only a philosophical dimension approachable by the use of reason, but also a dimension which transcends human reasoning. Here philosophy and reason stops at the milestone of its own limitations, faith has to give way to the paths of fulfilment.

Teilhard being an ardent Christian, his cosmogenesis finally ends in ‘Christogenesis’. The Omega is Christ himself. He is present in evolution and is the end of evolution. The universe is physically impregnated with the influence of Christ Omega. If man is the measure of all things, and if man marks the maturation of one grand process of cosmogenesis, a fundamental transformation in man is likely to have its prolongations beyond him. The physical influence of Christ helps man to go beyond.
Eternal God, Christ, and man appearing within time have a fundamental relation to the world and to evolution. Christ is the author and creator, animator and mover, director and leader, centre and head, its consistence and consolidation, gatherer and assembler, purifier and regenerator, crown and consummation, spearhead and end. Though immanent in the universe, yet Christ is not a supernumerary added to the world, an embellishment and a king; but, he is the owner of the great estate. He is the alpha and the omega, the beginning and the end, the foundation stone and the key-stone, the fulfilment and fulfiller. Autonomy, actuality, irreversibility and finally transcendence are the four attributes of Omega.

Teilhard holds that history is fulfilled and totalized only in and through Christ, and that it rises beyond itself into a transcendent supernatural universe. Christ is the incarnation of God who descended to this world to draw all men to himself. His coming was prophesied in the Old Testament. "And a child shall be born of the Virgin and his name shall be called Immanuel which
mean: God with us." In a universe of conical structure ‘Christ occupies the apex and through his spirit He radiates to the fullest extent in human life. In order to find God in his creation we need an active and living faith. This faith enables man to find Christ in all his activities and passivities. This helps us to escape from the evils of this world. Christ lived for thirty years and his principal teaching was ‘love’ for man and for God. He proclaimed that he is the way, the truth and the light and whosoever believes in Him shall have ever lasting life. Teilhard being a Christian and a Jesuit, the vision of Christ illuminates his evolutionary theory. The great figure in whom the pleroma finds its physical principle, its expression, and its consistence is Christ-Omega, the universal Christ who ‘descended and ascended’ in the world, filling all things.

The Christian conception of incarnation is epitomised in the faith that Christ is the living Church. It is at this point that Christ can be identified with Omega. He is complete in himself, in the plenitude of his eternal act, and in communion with the trinity.

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28 The Bible (Matthew, 1:23)
In the virtue of their structure, the two points (the critical point of human maturity and the Parousia point) inevitably coincide, in the sense that the fulfilment of hominisation through ultra-reflection appears as a necessary preliminary condition of its divinisation. The Christ of history becomes the lord of the universe at the resurrection by his conquest of space, sin and death. He acts today in the world through a new form of existence. In this existence his redemptive incarnation is being continued through the unification of the entire universe into his cosmic body. The Eucharist is the concrete means of effecting this unification. It is instituted by Christ as a symbol of love and unity. The cosmic Christ is still present in the world through the Eucharist, and it is at the heart of Teilhardian theology. The cosmic Christ is nothing but the Omega of Teilhard. He is the Omega of evolution identified with the historical Christ of revelation. Through incarnation Christ entered not only into mankind but also into the universe that bears mankind.

God is not a person of the same order as we are. God is said to be the father of Christ. He is a super-person, a hyper-centre.
That means someone deeper than us. If a universe, made up of personal elements, is to be super-animated without being destroyed, it must itself be some special centre. God can be defined only as a centre of centres. It is in this complexity that the perfection of his unity lies – the only culmination that can logically be attributed to the developments of Spirit-matter. The condition is that God shall gather together into his own simplicity the evolutionary extensions of all the fibres of the advancing world: he must be the God of cosmic synthesis in whom we may realize that we are progressing and becoming united through a spiritual transformation of all the powers of matter.

The second condition is that this same God shall, in the course of that synthesis; act as a first nucleus of independent consciousness: a supremely personal God from whom we are all the more distinct, the more we lose ourselves in him. In a governed plan of creative union, it is inevitable that not the universe alone but God himself ‘is Christified’ in Omega, at the upper limits of cosmogenesis. In other words, ‘evolved’ monotheism, around which all that is best in the earth’s religious energies is
concentrating, is logically and biologically being fulfilled in the direction of some form of ‘pan-Christism’. In the eyes of the new man of today, the whole truth of God, the one and triune God appears in the form of Christ. Similarly, when Teilhard says, ‘Christ saves’ he does not mean Christ is in some way dependent on an evolving world. He is referring to the fact that the growth of Christ’s mystical body is necessary to him, and also perhaps to the apostolic value derived from Christianity’s acceptance of the idea of evolution. Teilhard holds that, far from being a catastrophe or disintegration, the end of the world is the triumph of the divine enterprise, the successful realisation of God's plan, through the fulfilment of man, his collective emergence into the life of God is the concept of a supreme pentecost, effecting the purification and final exaltation of the Church. A figure is presented showing the action of Omega-Christ in a history that is supernatural from its origin.

The centre of ideal personalisation, and the principle of pure love, Teilhard identifies with Christ. All things are created and sustained by him. The whole universe has become in Teilhard’s
eye, the temple of the living God. Every thing that exists is sacred and everything that happens is adorable. The rhythms of nature are the movements of the Lord. The idea of Christ evolving has divinised the whole. And behind the creation God has a purposive plan. In agreement with Christian theology, Teilhard accepts the view that God has created the world, but he interprets creation in a way that accommodates the established theories of science. His aim is to explain creation without violence to religion and science. He agrees with the Christian view that God is the initial and permanent principle and that everything proceeds from Him and towards Him. But he rejects the view that creation is an event in time and accepts the scientific theory of evolution. Creation, viewed as an event in time, cannot satisfactorily explain God's immanence. The world is not a finished product manufactured by a still God from out of nothing. God's creation is a movement of loving expansion by which He freely and completely unites His creation with Himself. God's creation takes the form of a transformation. Creation is a process of unification. It is through a continuous process of higher and higher unification, that matter reaches spirit in a holy wedlock.
Man’s fulfilment is essentially a final self-emptying on our part. We call it a surrender to the Divine. “God must in some way or other make room for himself, hollow us out and empty us. If He is to produce the necessary entrance to our inmost selves, it will make us undergo the required dissociation. It will put us into the state organically needed if the divine fire is to descend upon us.” Teilhard’s humanism combines within itself the divinisation of earthly life and its merger with the ultra-human. Man is not a spectator, but a participant and a conscious collaborator of cosmogenesis. At the same time his thirst for total freedom liberates him from the narrow limitations of his earthly existence and culminates in the total realisation of the fulness of his being. Man in embracing the “Absolute Thou” gives glory to His existence and makes Him immortal. St. Paul, one of the Apostles of Christ, sees Christ as the centre of the universe. To re-centralise everything in Christ is the ultimate goal of the progress of the universe. All things in Heaven and on Earth have been created through Him and are sustained in Him.”

30 *The Bible*. (Col I, 15-18)
Teilhard’s solution to the problem of man and to the problem of happiness is spiritual growth, in collaboration with the impulse that drives history towards its end. Three phases may be distinguished in the process, which are called centration, decentration, and super-centration. In the first place, each individual must get away from the dispersive, restless confusion that brings servitude and alienation; he must attain the maximum of being, must grow and increase in stature, must emancipate himself and possess himself. This involves an effort to develop a total, hierarchic culture, which will result in giving his personality more order, more unity and more value.

Personal culture might well become a subtle form of self-love, if it does not open out into love and place itself at the service of others. Here again, our lesson comes from nature, where everything shows us the interconnection, interdependence and solidarity of elements, directed towards the unification of individuals. Love is coexistence and collaboration, acceptance and gifts, sacrifice and renunciation: the only love that brings happiness is expressed in a spiritual progress realised in common.
Once the earlier movement has got under way, it moves out, beyond closed circles and groups, towards the creation of a perfectly unified and single-minded humanity. Once again, this effort consorts with the evident fact of the present increase in the utility of man. We may anticipate the time when men will know what it is all together, as though with one heart, to desire, to love the same thing at the same time. It consorts too, with a recent spiritual phenomenon that is drawing the elite of mankind towards a value that overtops them: the epic of the explorer, the technologist and the scientist.

Teilhard describes how the collective life of man at different epos tends to promote an ultimate cosmic unity. In all movements of life, there is the identity of a structure which, under different forms, extends from the bottom to the top, from threshold to threshold, from the roots to the flowers - by the organic continuity of movement or, which amounts to the same thing, by the organic unity of milieu. The unity of mechanism is evident in grouping and invention, in ‘trying all and discovering all’. The unity of movement is seen in the rise and expansion of
consciousness. Man becomes much more than the centre of the universe. Phylogesis merges with ontogenesis. In this process heredity plays its part. The collective memory and intelligence of the human biota springs to life, supremely active, in its noosphere form - that is to say, by becoming hominised.

When we consider the ultimate phases of man's evolution, we have to assess the evolutionary significance of love. In mammals it appears as sexual passion, parental instinct, social solidarity, etc. Lower down on the tree of life, love is so thinned out as to become imperceptible. But even in the molecule itself, we can discern love at the rudimentary level. We have to assume its presence in everything that exists. Love enables the fragments of the world to seek each other. But love alone can unite living beings. Love personalises by totalising. The synthesis of the one and the many through love is not a Utopian ideal, but a biological necessity. It may be said that to love all is to love none. Love presupposes an object of love. Teilhard is clear all through his writings that this initiating, activating, diverting, sustaining energy is also an energy of love. He speaks of a phylum of love, the
central growing shoot of life, the growing point, much in the same way as he speaks of Christ. Everything loving permeates the whole universe with love. Only union through love and in love brings individuals together, not superficially and tangentially but centre to centre; it can physically possess the property of not merely differentiating but also personalizing the elements which comprise it. Mankind will find and shape itself, only if man can learn to love one another in the very act of drawing closer. Personality should not be confused with individuality. Individuality involves isolation. But personality develops with association.

Teilhard says that everything in the universe ultimately proceeds towards Christ - Omega. Teilhard suggests the possible lines of development. In the first place, evolution will assume a collective and spiritual form. The second line of evolution is what Teilhard calls the discovery of the human object. The science of man is the practical and theoretical science of hominisation. Man’s significance to science is two-fold. He is at present at the most mobile point of the stuff in the course of transformation. To understand man is, therefore, to understand the world, not only in
its present form but also in relation to its future possibilities. The third line of future evolution is a conjunction of science and religion.

The birth of consciousness and the increasing unity it has acquired has completely revolutionised our idea of mankind. In the eyes of the eighteenth century prophets, mankind appeared to be a jumble of confused and loose relationships. In the course of a few generations all kinds of economic and cultural links have been forged around us. The human field now requires the whole earth to nourish each one of us – globalization. Mankind is a collective reality. From this point of view, there are two ways in which we can picture the future of mankind, either as a common power of knowing and doing, or as a community of souls. The evolutions of mankind and of science go together. They support one another. Thinking, at first, was carried on for speculative pleasure. Intellectual discovery and synthesis have seen reached at a later stage. Science attempts to give a harmonious picture of the universe. Science now has become knowledge for power. Mankind
may also be viewed as a community of souls. Mega-synthesis ends in unanimity.

We cannot leave the future entirely to God because His plan for us includes our co-operation in our own future. Omega does not force evolution to advance beyond the human stage, but draws it only by attraction from ahead. God does not compel us to come to Him, but His love draws us. We may either co-operate or rebel. But we must co-operate in order to bring creation to a successful outcome. The methods to co-operate is to love and remain open to one another, to press on the development from the within.

Teilhard has pointed out the Promised Land as 'the city of God'. But we have still to enter into it. For this a convergence of the talents, energy and love of all people is required. Man has a passion for the world and, at the same time, a passion for God. He must integrate his world and have Christ in his consciousness. "The evil of isolation and insecurity is the great anxiety of man who does not understand the world in which he lives."31

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31 George Appleton, et.al, Op.Cit., p. 103
The primacy of charity, as Teilhard calls it, is an essential ingredient in the cosmogenesis for the evolution to reach the apex. It is through charity that human life becomes dynamic in its movement towards the Omega. Collaboration with God and the edification of the body of Christ are two forms constantly interconnected, which allow the Christian to encounter God in this worldly endeavour. "In action, I adhere to the creative power of God. I coincide with it. I become not only its instruments but its living extension."\textsuperscript{32} Teilhard further says: "The closeness of our union with God is in fact determined by the exact fulfilment of the least of our tasks."\textsuperscript{33} Activity urges man to escape from himself and to arrive at something higher than him. It is by doing our duty and by our intention to grow in union both among men and with God, that we achieve the true fulfilment. Each person has unique aptitudes and a unique role. The secret of happiness consists in discovering one's uniqueness in fulfilment. A person given ten talents has to make it twenty, and a person given twenty has to make it forty. Whatever one's station in life, it is incumbent on him

\textsuperscript{32} Teilhard de Chardin, \textit{The Divine Milieu}. Op.Cit., p. 62

\textsuperscript{33} ibid. , p. 64
to do his duty in the best way. Lord Krsna says to Arjuna: “Do your duty, that is all your part; you should not hanker for the fruits of your action; do not shirk your duty”. Teilhard also believes that the scriptures are God’s words and they teach us our duties. The Ten Commandments and the teachings of Jesus Christ are to be obeyed because they are God’s words. Man should not become sceptical about the results of his action. Results will come as already designed in the plan of God, whose supremacy is illumined in the cosmogenesis. “The divinisation of our endeavour by the value of the intention put into it pours a priceless soul into all our actions”34. Acting with the motive of Ṵivara seva a person attains God – realisation. Teilhard also holds the same view “Through our work we complete in ourselves the subject of divine union and through it again we somehow make to grow in stature and divine tune of one with whom we are united, our lord Jesus Christ”35

Teilhard’s general theory resists any absolute disjunction between the inorganic and the organic. Matter and spirit are two

34 ibid., p. 55
35 ibid., p. 60
stages or aspects of the same cosmic stuff. These transitions from one state to another may be said to correspond to those between the somatic and the psychic, the exterior and the interior, according to the state of relative development, organisation, and complexity. Evolutionary development is characterised by a progression from the simplest components of matter and energy (the lithosphere), through the organisation of flora and fauna (the biosphere), to the complex formations of sentient and cognitive human life (the noosphere). In this sense evolution is a progressive spiritualisation of matter. Teilhard held this to be an orthogenetic process. Matter is in a process of involution and complexification, toward the psychic.

The vision of an evolving world in relation to the divine creative presence and activity is what Teilhard advocates. The world is in a process of immense temporal and spatial proportions, moving ineluctably towards a grand and magnificent conclusion in the divine goal and ground. The law of complexity and consciousness enables to see the evolutionary development of the world in terms of increasingly complex forms of matter
accompanied by increased capacity for consciousness (or spirit). The correlation between complexity (the without of things) is highly evident in human beings. With the advent of modern times the varied human cultures, formed in the course of history, begin to interact in quite new ways, giving rise to an enormously complex international (or planetary) community of peoples bound together. The history of the spirit will at last achieve its final goal. This goal, this point of unity ahead, Teilhard called Omega. Nothing less than universal love can bring the vast evolutionary development of the world to a successful conclusion.

The salient features of future evolution have been outlined as unification, socialisation, personalisation and planetisation. The evolutionary vision of Teilhard advocates international understanding for world peace. He thanks the UNESCO as a step towards world peace. Arnold Toynbee comments that Teilhard sees and presents the universe in evolution, but at the same time as a unity. His vision of unity meets the spiritual need of our time.