

# **EVOLUTIVE CREATION: THE PERSPECTIVE OF TEILHARD DE CHARDIN**

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## **INTRODUCTION**

We live in a time of tragedy and crisis. Despite great triumphs, human pride is shaken, while human security is threatened by despair. Humanity sees some of the greatest thinkers accepting the notion that the world is an absurdity; people who are eminent in literature and cinema seem to delight in blackening life as a useless agony, and ridiculing the human being as a mere mechanical puppet. With human activity robbed of all hope and nobility, people are turning to Teilhard de Chardin in order to find out whether human labor is vain and without justification, or whether it has an absolute value or whether it can only peter out in a trackless waste and meet a catastrophic end.

We have our technical skills, our science, inventions and discoveries, our cities; we have the natural beauties of our earth; we can speak to one another and communicate with one another across continents and oceans; we know the joy of living and creating. We can see and hear the intense activity of the human hive—and we ask whether all these have a meaning and a direction.

As a student of science faced with such an existential predicament, I ask myself: “Is it possible to be truly a Christian and fully a man? Is it possible to hold the crucified God before one’s eyes, while still be passionately devoted to the human enterprise and the full development of man? Can I love both the world and God? Is secular history inseparable from sacred history?” There is a general feeling that Teilhard can answer these agonizingly urgent questions.

The dominant concern of theologians in the first two centuries of the Church was to determine the position of Christ in relation to the Trinity. Today, the vital question is to analyze and specify the relationship between Christ and the universe.<sup>1</sup> Teilhard integrates modern scientific knowledge of a universe in evolution, with spiritual insights

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<sup>1</sup> Teilhard de Chardin, *Christianity and Evolution*, trans. René Hague (London: William Collins Sons, 1971), p. 48.

into the nature of God's activity as deep as any mystic has ever achieved. The physical universe itself becomes an object of adoration.<sup>2</sup> This is what he calls *Evolutionary Creation*, the title of this dissertation.

Teilhard's project was to trace, from the text of the living earth, the journey from non-life to life, from life to consciousness, from consciousness to the final unity of creation with its Creator. Teilhard could not believe in a wasteful Creator or in a diffuse, accidental, purposeless creation. He believed that at the root of all his thought and at the root of every human aspiration was an instinctive desire for a unity and harmony in the cosmos. Once humans abandoned their hope for it, they condemned themselves to suicide or madness. "Christianity" and "Evolution" are not two irreconcilable visions, but two perspectives destined to fit together and complement each other.<sup>3</sup>

The overall vision that Teilhard sets out is that of a universe in the process of evolution—a massive organism which is slowly progressing towards its fulfillment through a forward and upward movement. He calls it *evolutionary creation* or *creative transformation* because God is at work within this process, directing it from inside—yet also at work ahead of the process, drawing it towards Himself and its final fulfillment. In a paper entitled *What I Believe*, Teilhard set out his cosmic vision in four terse statements:

*I believe that the universe is an evolution*

*I believe that evolution proceeds towards spirit*

*I believe that spirit is fully realized in a form of personality*

*I believe that the supremely personal is the universal Christ.*<sup>4</sup>

In this dissertation, an attempt is made to capture the essence of both, the thought and the person of Teilhard, the missionary and the apologist. It attempts to show Teilhard grappling with the mysteries of the universe and the Christian revelation, achieving a synthesis of the two and then humbly submitting it all to the Church for approval.

The first chapter deals with the **formative influences** that molded the mind of Teilhard. The second chapter gives the reader an overview of **various theories of evolution** while the next takes us to the crux of Teilhard's perspective on evolution, a

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<sup>2</sup> Bernard Towers, *Teilhard de Chardin* (London: Lutterworth Press, 1966), p. 4.

<sup>3</sup> Henri de Lubac, *Teilhard Explained*, trans. Anthony Buono (New York: Paulist Press, 1968), p. 61.

<sup>4</sup> *Christianity and Evolution*, p 96.

**synthesis between Science and Christian faith.** The fourth chapter draws a parallel between Teilhardian thinking and the **Indian concept of evolution** based on the *Sāṃkhya* school of thought. The final chapter answers the question of whether Teilhard has succeeded in his **attempts to synthesize** these two apparently warring factions of reason and revelation.

The object of this study is to present Teilhard's thinking in a way that is possible to understand. These conceptions are not only of importance to the biologist, and the geologist, the philosopher and the theologian, but to everyone who is interested in the development of the world.

For the sake of convenience, I have used the term 'man,' throughout this paper, though the reader is requested to bear in mind the universal application of such a term to signify all human beings.

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# CHAPTER I

## THE MAKING OF A MIND: A SHORT BIOGRAPHY OF TEILHARD DE CHARDIN

*There is a communion with God, and a communion with earth,  
and a communion with God through earth.*<sup>5</sup>

These lines that conclude Pierre Teilhard de Chardin's essay, "The Cosmic Life," provide an appropriate starting point for a consideration of his life. They are of special interest because Teilhard wrote them in 1916 during his initial duty as a stretcher-bearer in World War I. In many ways, they are an early indication of his later work. Yet the communion experiences emphasized here take us back to his early childhood in the south of France and ahead to his years of travel and scientific research. Throughout Teilhard's seventy-four years, his experience of the divine and his insight into the role of the human in the evolutionary process emerges as his dominant concerns. In briefly presenting the biography of Teilhard three periods will be distinguished: **the formative years**, **the years of travel**, and **the final years** in New York. It is not possible to separate his life from his thought. "He was all of a piece, a garment without seams, just as he conceived the created universe to be."<sup>6</sup>

### 1.1. THE FORMATIVE YEARS

#### 1.1.1 Childhood Experiences

Pierre Teilhard de Chardin was born on 1 May 1881 to Emmanuel and Berthe-Adele Teilhard de Chardin. He was the fourth of the couple's eleven children and was born at the family estate of Sarcenat in the ancient province of Auvergne. The long extinct volcanic peaks and the forested preserves of Auvergne left an indelible mark on Teilhard. In his spiritual autobiography, *The Heart of Matter*, he remarks, "Auvergne moulded me... [It] served me both as museum of natural history and as wildlife preserve. Sarcenat in Auvergne gave me my first taste of the joys of discovery."<sup>7</sup>

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<sup>5</sup> Pierre Teilhard de Chardin, *Writings in Time of War*, trans. René Hague (London: William Collins Sons, 1968), p. 14.

<sup>6</sup> Towers, pp. 2-3.

<sup>7</sup> John Grim and Mary Evelyn, "Teilhard de Chardin: A Short Biography," ed. Arthur Fabel, *Teilhard Studies*, (New York: American Teilhard Association, 1984), p. 1.

Drawn to the natural world, Teilhard developed his unusual powers of observation. This youthful skill was fostered by his father, who had an avid interest in natural science. The stones around Auvergne augmented his youthful search for a permanent reality. Yet Teilhard's earliest memory of childhood was not of the flora and fauna of Auvergne but a striking realization of life's frailty and the difficulty of finding any abiding reality. He recollects, "I was five or six. My mother had snipped a few of my curls. I picked one up and held it close to the fire. The hair was burnt in a fraction of a second. A terrible grief assailed me; I had learnt that I was perishable . . ." <sup>8</sup>

Undoubtedly, his sensitive nature was also nurtured by his mother's steadfast piety. Teilhard's reflection on his mother's influence is striking, he writes:

A spark had to fall upon me, to make the fire blaze out. And, without a doubt, it was through my mother that it came to me, sprung from the stream of Christian mysticism, to light up and kindle my childish soul. It was through that spark that 'My universe,' still but *half* personalized, was to become amorized, and so achieve its full centration. <sup>9</sup>

This early piety was well established and when he entered Notre Dame de Mongre, at twelve years of age, his quiet, diligent nature was already well formed. During his five years at this boarding school, Teilhard exchanged his security in stones for a Christian piety largely influenced by Thomas Kempis's *Imitation of Christ*. Near the time of his graduation, he wrote to his parents indicating that he wanted to become a Jesuit. He entered the Jesuit novitiate at Aix-en-Provence in 1899.

### 1.1.2 The Society of Jesus

Teilhard's training as a Jesuit provided him with the thoughtful stimulation to continue his devotion both to the scientific investigation of the earth and to the cultivation of a life of prayer. The influence of the Spiritual Exercises, with their grandeur and generosity of manner, their sense of history, and their closing invitation to love God in all things and of classical Thomism, which harmonized the relations of nature and grace, and defined the substantial relationship of matter (body) and spirit (soul), were to remain fundamental in Teilhard's thought. Theology was to supply Teilhard with many formal elements and implicit stimuli. For instance, his *personalism*

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<sup>8</sup> Ibid., p. 2.

<sup>9</sup> Ibid.

derives from the dogma of the Trinity and the notion of the Mystical Body; his concept of a global history of creation is borrowed even more from the Bible than from biology; the mystery of the Incarnation, disclosed to him the eminent and central position of Christ in the world.<sup>10</sup>

### 1.1.3 Scientific Training: The Influence of Henri Bergson

Practical scientific training developed in Teilhard the scientist's normal qualities: a respect for facts, exactitude and accuracy. It gave him a sense of the magnitude, complexity and richness of the universe, a sense of an objective world, existing as a whole organism of interdependent elements. He shared the faith of his time in the value of positive phenomena, as the only way in which man can apprehend sensible reality, but at the same time, like Henri Bergson, he extended this positivity to spiritual phenomena. His specializing in geology and biology gave Teilhard a sense of time and of history, seen in their widest dimensions. Biology provided him with the evidence that showed the irresistible power of spiritual energy.

Teilhard was strongly influenced by Henri Bergson, whose works he had studied, in particular *Creative Evolution* in 1908 and *The Two Sources of Morality and Religion* during the war in 1939. It was the first of these two books that awoke the young Teilhard from his "fixist slumber" and introduced him to the idea of a creation that continues in duration and ascends towards spirit. In reading Henri Bergson's newly published *Creative Evolution* Teilhard encountered a thinker who dissolved the Aristotelian dualism of matter and spirit in favor of a movement through time of an evolving universe. From Bergson, then, Teilhard received the vision of on-going evolution. For Bergson, evolution was continually expanding, a *Tide of Life* undirected by an ultimate purpose. Teilhard would eventually disagree with Bergson with respect to the direction of the universe. Later, he put forward his own interpretation of the evolutionary process based on the intervening years of fieldwork. Teilhard borrowed many elements from Bergson's scientific metaphysics of cosmic history and corrected them by the notion, at once rational and religious, of unification and universal convergence.<sup>11</sup>

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<sup>10</sup> Emile Rideau, *Teilhard de Chardin: A Guide to His Thought*, trans. René Hague (London: William Collins Sons, 1968), pp. 19-20.

<sup>11</sup> *Ibid.*, pp. 23-5.

In 1905, Teilhard was sent for his teaching internship at the Jesuit college of St. Francis in Cairo, Egypt. For the next three years his naturalist inclinations were developed through prolonged forays into the countryside studying the existing flora and fauna and the fossils of Egypt's past. His *Letters from Egypt* reveal a person with keen observational powers. In 1907 Teilhard published his first article, *A Week in Fayoum* and due to his finds of shark teeth in Fayoum and in the quarries around Cairo, a new species named *Teilhardia*, and three new varieties of shark were presented to the Geological Society of France by his French correspondent, Monseur Prieur.

Between 1912 and 1915 Teilhard continued his studies in paleontology and gained an expertise in the geology of the Eocene Period that earned him a doctorate in 1922. While Teilhard was developing a promising scientific career he also renewed his acquaintance in Paris with his cousin Marguerite Teilhard Chombon. Through Marguerite, Teilhard entered into a social milieu in which he could exchange ideas and receive critical comment from several perspectives. In these surroundings, Teilhard developed his thought until the outbreak of World War I in 1914.

#### **1.1.4 The Soldier-Priest**

The powerful impact of the war on Teilhard, for a span of four and a half years, is recorded in the letters to his cousin, Marguerite, now collected in *The Making of a Mind*. They give us an intimate picture of Teilhard's initial enthusiasm as a *soldier-priest*, his humility in bearing a stretcher while others bore arms, his exhaustion after the brutal battles, his heroism in rescuing his comrades of the Fourth Mixed Regiment, and his unfolding mystical vision centered on seeing the world evolve even in the midst of war.

“Baptism in the real,” in his own phrase, the war gave Teilhard an opportunity for making an extensive contact with men, and for intense personal reflection and mystical illumination. It was here that the essence of Teilhard's thought came into being: the idea of a world in the process of genesis, of a universal matter permeated, animated and unified by Christ.<sup>12</sup>

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<sup>12</sup> Ibid., p. 21.

Throughout his correspondence he wrote that despite this turmoil, he felt there was a purpose and a direction to life more hidden and mysterious than history generally reveals to us. This larger meaning, Teilhard discovered, was often revealed in the heat of battle. His writings from the battlefield puzzled his Jesuit Superiors, especially his rethinking of such topics as evolution and original sin. Gradually Teilhard realized that the great need of the Church was, “to present dogma in a more real, more universal—a more ‘cosmogonic’ way.”<sup>13</sup> These realizations often gave Teilhard the sense of “being reckoned with the orthodox and yet feeling for the heterodox.”<sup>14</sup>

After returning to Paris, Teilhard continued his studies with Marcellin Boule in the phosphorite fossils of the Lower Eocene period in France. Extensive field trips took him to Belgium where he began to address student clubs on the significance of evolution in relation to current French theology. By the fall of 1920, Teilhard had secured a post in geology at the Institute Catholique and was lecturing to student audiences who knew him as an active promoter of evolutionary thought.

The opportunity for fieldwork in China had been open to Teilhard as early as 1919 by an invitation from the Jesuit scientist Emile Licent who had undertaken paleontological work in the environs of Peking. On 1 April 1923, Teilhard set sail for China. Little did he know that this “short trip” would initiate the many years of travel to follow.<sup>15</sup>

## 1.2 THE YEARS OF TRAVEL

Teilhard’s major interest during these years of travel was primarily in the natural terrain. Although he interacted with innumerable ethnic groups, he rarely entered into their cultures more than was necessary for expediting his business or satisfying a general interest. One of the ironies of his career is that the Confucian tradition and its concern for realization of the cosmic identity of heaven, earth and man remained outside of Teilhard’s concerns. Similarly, tribal peoples and their earth-centered spirituality were regarded by Teilhard as simply an earlier stage in the evolutionary development of the Christian revelation.

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<sup>13</sup> Teilhard de Chardin, *The Making of a Mind*, trans. René Hague (London: William Collins Sons, 1965), pp. 267-8.

<sup>14</sup> *Ibid.*, p. 277.

<sup>15</sup> Towers, p. 14.

Teilhard returned to Paris in September 1924 and resumed teaching at the Institute Catholique. But the intellectual climate in European Catholicism had not changed significantly. Pius XI, the new Pope since 1922, had allowed free reign to the conservative factions. It was in this hostile climate that a paper that Teilhard had delivered in Belgium made its way to Rome. Teilhard was ordered to appear before his Superior to sign a statement repudiating his ideas on original sin. In the interim before receiving Rome's reply to his revisions Teilhard continued his classes at the Institute. Those students who recalled the classes remembered the dynamic quality with which the young professor delivered his penetrating analysis of *Homo faber*. According to Teilhard, the human as a toolmaker and a user of fire represents a significant moment in the development of human consciousness or *hominization* of the species. It is in this period that Teilhard began to use the term of Edward Suess, *biosphere*, or earth-layer of living things, in his geological schema. Teilhard then expanded the concept to include the earth-layer of thinking beings, which he called the *noosphere* from the Greek word *nous* meaning *mind*. While his lectures were filled to capacity, his influence had so disturbed a bloc of conservative French bishops that they reported him to Vatican officials who in turn put pressure on the Jesuits to silence him.<sup>16</sup>

In the spring of the following year, Teilhard boarded a steamship for the Far East. Teilhard moved from Tientsin into the more sophisticated scientific circles of Peking where American, Swedish, and British teams had begun work at a rich fossil site called *Chou-kou-tien*. With Licent, Teilhard also undertook a significant expedition north of Peking. Finally, in an effort to state his views in a manner acceptable to his superiors, Teilhard wrote *The Divine Milieu*. This mystical treatise was dedicated to those who love the world; it articulated his vision of the human as “matter at its most incendiary stage.”

Meanwhile, Teilhard had been in correspondence with his superiors who finally allowed him to return to France in August 1927. But even before Teilhard reached Marseille a new attack was made on his thought due to a series of his lectures which were published in a Paris journal. While Teilhard edited and rewrote *The Divine Milieu* in Paris, he was impatient for a direct confrontation with his critics. Finally, in June 1928 the assistant to the Jesuit Superior General arrived in Paris to tell Teilhard that all his theological work must end and that he was to confine himself to scientific work. In this

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<sup>16</sup> Grim, p. 8.

oppressive atmosphere, Teilhard was forced to return to China in November 1928. For the next eleven years, Teilhard continued this self-imposed exile in China returning to France only for five brief visits. These years were very rich in geological expeditions for Teilhard.

In 1929, Teilhard traveled in Somaliland and Ethiopia before returning to China. He played a major role in the find and interpretation of “Peking Man” at Chou-kou-tien in 1929-30. The following year he made a trip across America, which inspired him to write *The Spirit of the Earth*. Because of this extensive fieldwork, Teilhard became recognized as one of the foremost geologists of the earth’s terrain.<sup>17</sup>

The final years of exile in China (1939-46), roughly correspond to the years of World War II and the disintegration of central control in Chinese Republican politics. The most significant accomplishment of this period was the completion of *The Phenomenon of Man* in May 1940. An important contribution of this work is the creative manner in which it situates the emergence of the human as the unifying theme of the evolutionary process. *The Phenomenon of Man* in its presentation of the fourfold sequence of the evolutionary process (the galactic evolution, earth evolution, life evolution and consciousness evolution), establishes what might almost be considered a new literary genre.

With the war’s end, Teilhard received permission to return to France where he engaged in a variety of activities. He published numerous articles in the Jesuit journal, *Etudes*. He reworked *The Phenomenon of Man* and sent a copy of it to Rome requesting permission for publication, a permission never granted in his lifetime. By May 1947, Teilhard had exhausted himself in the attempt to restate his position and to deal with the expectations of his sympathetic readers. His exhaustion caused a heart attack on 1 June 1947. In October 1948, Teilhard left for the United States of America.

In July 1948, Teilhard received an invitation to come to Rome to discuss the controversies surrounding his thought. After several meetings with the Jesuit general, Fr. Janssens, Teilhard realized that he would never be allowed to publish his work during his lifetime; furthermore, that he would not be granted permission to accept the position at

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<sup>17</sup> Ibid., p. 9.

the College de France. Those who spoke with Teilhard when he returned to Paris could sense the frustration that enveloped him as he groped to understand the forces against which he was so powerless.

During the next two years, Teilhard traveled extensively in England, Africa and the United States trying to determine an appropriate place to live, now that China was no longer open. In December 1951, he accepted a research position with the Wenner-Gren foundation in New York.

### 1.3 THE FINAL YEARS IN NEW YORK

Teilhard's correspondence with Father Pierre Leroy during these final years, recently published in English as *Letters from My Friend*, are remarkable in their lack of bitterness and for their single-minded scientific focus. Pierre Teilhard de Chardin died on Easter Sunday, 10 April 1955 at six o'clock in the evening.

In my opinion, the chief reason why Teilhard was misunderstood was the cultural and ecclesiastical milieu of the time. Throughout all of Teilhard's youth and during part of his adult life, the Church, as a whole, was drawing in on itself, adopting an attitude of opposition and defence. In spite of its evident fervor, it was maintaining or even increasing the distance from the modern world. This situation, of which he was painfully conscious, was to react on Teilhard's thought: the new approach to which he contributed, came too late for him to benefit by it. Teilhard's life with its simple, quiet ending unfolds like the tree of life in his own description, slowly, seemingly half opened at points yet bearing within it an enduring dignity. As he wrote of the *Tree of Life*: "Before attempting to probe the secret of its life, let us take a good look at it. For from a merely external contemplation of it, there is a lesson and a force to be drawn from it: *the sense of its testimony*." <sup>18</sup>

In sum, without in any way diminishing Teilhard's originality, we can say that, all these influences, taken together, contributed to the birth and development of his thought.




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<sup>18</sup> Teilhard de Chardin, *The Phenomenon of Man*, trans. Bernard Wall (London: William Collins Sons, 1959), pp. 137-8.

## CHAPTER II

### OVERVIEW OF THEORIES OF EVOLUTION

*Living creatures arose from the moist element as it was evaporated by the sun.... Human beings are like other animals, namely fish, in the beginning.*<sup>19</sup>

- Anaximander of Miletus (546 B.C.)

In these words of Anaximander, one can find the beginning of the vision of the evolutionary pattern of nature—the realization of which was to be perhaps the chief ingredient in the making of the modern world.

#### 2.1 THE MEANING OF THE TERM “EVOLUTION”

The term *evolution* is derived from the Latin word *volvere*, which means *to turn or to roll*. The prefix *e* adds the notion *out of or from*. Thus, evolution means *a turning out from, an unfolding or a development*. As Good describes it, “Evolution in its more general meaning of *change with time in continuing directions*, is a fundamental characteristic not only of the planet Earth, but, as far as known, of the whole cosmos.”<sup>20</sup>

According to Richard Swann Lull:

Evolution is the gradual development from the simple unorganised condition of primal matter to the complex structure of the physical universe; and in like manner, from the beginning of organic life on the habitable planet, a gradual unfolding and branching out into all the varied forms of beings which constitute the animal and plant kingdoms.<sup>21</sup>

Unless it is understood that we are speaking from a particular frame of reference, we should always put some distinguishing adjectives, such as stellar, geological, atomic, organic or cultural, before the term *evolution*. The term *evolution* when applied to the world of creatures implies a development that entails a leap from one species to another. Thus, the evolutionist advocates a *transformism*, whereby somehow and perhaps very gradually one kind of being develops into another. In general, the fundamental meaning of biological evolution is that life proceeds from the simple to the more complex or from the lower to higher forms.

<sup>19</sup> Qtd. in Anthony Hanson, ed., *Teilhard Reassessed* (London: Darton & Todd, 1970), p. 12.

<sup>20</sup> Ronald Good, *The Philosophy of Evolution* (Great Britain: Dovecote Press, 1981), p. 1.

<sup>21</sup> Richard Swann Lull, *Organic Evolution* (Delhi: Seema Publications, 1976), p. 6.

## 2.2 A HISTORICAL SKETCH OF THE THEORY OF EVOLUTION

Organic evolution is often imagined to be a 19<sup>th</sup> century contribution to the biological sciences, whereas the idea in itself is the product of an evolution of thought and the fruition of no fewer than twenty-four centuries of speculation and research. The germ of the evolutionary idea had its inception with the Greeks, the first writers being **Anaximander** and **Empedocles**. The latter is called the *Father of Evolution*<sup>22</sup> as he was the first to show the possibility of the origin of the fittest forms through chance rather than through design. **Aristotle** on the other hand did not believe in *Special Creation*; nevertheless, he postulated an intelligent design as the primary cause of the changes.

During the middle ages, under the influence of the Church, the theory of *Special Creation*, resting upon a literal interpretation of the Mosaic cosmogony was dominant.<sup>23</sup> Among the Fathers of the Church and later among the Scholastics, those who, like **St. Augustine**, accepted a less literal interpretation of the Bible combined it with the general conception of evolution. The progress of the evolutionary idea virtually ceased until the coming of the modern philosophers. One of the first to suggest the transmutation of species by accumulated variations, and to advocate the experimental investigation of the subject, was **Francis Bacon**. According to E. W. Hobson, though **Descartes** paid lip service to the orthodox doctrine of *Special Creation*, he believed himself to have found an explanation of the universe, and in particular of the phenomenon of life, on purely physical principles. **Leibniz**, in his doctrines of monads, developed the view that each monad is the focus of an endless process of evolution and involution. **Immanuel Kant**, in his earlier period, advanced the conceptions of Selection and Adaptation but he later appeared to have abandoned his evolutionary views.<sup>24</sup> While **Hegel** set out to understand past history rather than to forecast the future, he saw in history the gradual coming to full self-consciousness of an Absolute Idea, sometimes identified with God, by means of dialectical processes.

### 2.2.1 The Naturalists

Definite perspectives on evolution arose with naturalists like Linnaeus, Buffon, Erasmus Darwin, Lamarck, Lyell and culminated in the *Theory of Evolution by Natural Selection* of Charles Darwin. Here is a brief summary of their views.

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<sup>22</sup> Ibid.

<sup>23</sup> E. W. Hobson, *The Domain of Natural Science* (New York: Dover Publications, 1968), p. 426.

<sup>24</sup> Ibid., p. 427.

**i. Linnaeus (1707 – 1778)**

Among the great naturalists, Linnaeus was a contributor of facts rather than a theory. His faith in the origin of species through *Special Creation* never wavered, except that he believed in the production of post-creation forms by hybridizing or by degeneracy due to climatic change.<sup>25</sup> Linnaeus argued for the *fixity of species*, that the present range of species, which can be observed in the natural world, represents the way things have been in the past, and the way they will remain in the future. In this view, each species can be regarded as having been separately created and endowed with fixed characteristics.

**ii. Buffon (1707 – 1788)**

Buffon was the naturalist founder of the modern form of the evolutionary theory. The fear of persecution from the orthodox ecclesiastical authorities explained why he wavered between *Special Creation* and *Evolution*. For him, the factor in the modifications of the structure of species was the direct influence of the environment.<sup>26</sup> Buffon anticipated various ideas—the struggle for existence, artificial and natural selection, geographical isolation—all of which later became fundamental ideas of evolution.

**iii. Erasmus Darwin (1731 – 1802)**

Unlike Buffon, he did not emphasize the influence of the directly acting environment, but believed that modifications sprang from the reactions of the organism in response to various influences. Many of these acquired forms were transmitted to their posterity.<sup>27</sup> This was the first time that the factor of the inheritance of acquired modifications is clearly stated. Erasmus Darwin believed that powers of development were implanted within the original organism by the Creator and that these in turn gave rise to the various adaptations without further divine intervention.

**iv. Jean Baptiste Lamarck (1744 – 1829)**

Lamarck's studies in systematic Botany and Zoology led him to the conception of the mutability of species, and to the theory of the origin of species by descent. In this domain, he may be regarded as the most important figure prior to Darwin. The highest

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<sup>25</sup> Lull, p. 8.

<sup>26</sup> Ibid.

<sup>27</sup> Ibid., p. 9.

point of development of Lamarck's views was exhibited in his *Philosophie Zoologique* (1809). His scheme included the main ideas that species varied under changing external influences; that there was a fundamental unity in the animal kingdom; and that there existed a progressive and perfecting development. The fundamental assumption made by Lamarck was that changes acquired are transmissible by heredity to the offspring.<sup>28</sup>

#### v. Charles Lyell (1797 – 1875)

Charles Lyell's *Principles of Geology* (1830), which fully discussed Lamarck's doctrines, marked the birth of modern geology and greatly influenced Charles Darwin. By its insistence on the importance of slow and minute changes in the structure of the earth, it pointed to an evolutionary theory.<sup>29</sup> Up to Lyell's time, the prevailing geological theory had been *Catastrophism*, which postulated a sequence of great cataclysms, between which God had created new species. Lyell rejected the notion that sudden catastrophes have been an important element in producing terrestrial changes and argued for *uniformitarianism*, in which the same forces, which could be currently observed at work within the natural world, have been active over huge expanses of time in the past.<sup>30</sup>

#### vi. A. R. Wallace (1822 – 1913)

Alfred Russell Wallace's explorations in the Amazon served as the basis for his book, *Travels on the Amazon and Rio Negro* (1853). On reading Malthus's *Essay on Population* there suddenly flashed upon him the idea of the survival of the fittest. He finally arrived at the same mechanism of *Natural Selection* as the driving force of evolution. He penned a letter to Charles Darwin in the summer of 1858 and his sketch was almost a replica of Darwin's own outline written in 1842.<sup>31</sup>

#### vii. Charles Darwin (1809 – 1882)

The five-year voyage of 1831 on the H.M.S Beagle which visited some of the islands of the South Pacific—of which the Galapagos Islands were the most important—led to the development of Darwin's ideas. During the voyage, various facts of paleontology and biogeography, which Darwin observed, suggested to him the possibility that species might not be immutable. He began to realize that human success

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<sup>28</sup> Hobson, p. 431.

<sup>29</sup> Hobson, p. 436.

<sup>30</sup> Alister E. McGrath, *Science and Religion: An Introduction* (USA and UK: Blackwell Publishers, 2000), p. 21.

<sup>31</sup> W.W. Fletcher, *Modern Man Looks at Evolution* (New York: Fontana, 1974), p. 87.

in producing useful varieties of plants and animals depended upon selection of desired variations for breeding stock. Malthus's *Essay on the Principle of Population* (1798) gave him the insight that he extended to include all organic beings. This finally appeared in the *Origin of Species*, the fruit of twenty-two years.<sup>32</sup>

From this historical sketch, it is evident that the necessary concepts and ideas with regard to evolution were already prevalent before the time of Darwin. Darwin did not invent all the ideas by himself. The ideas were there; but there was a considerable stumbling-block because nobody had any exact idea of how evolution would possibly have worked. This is where Darwin's originality lies. His genius was his explanation of evolution through the principle of natural selection aided by sexual selection.

### 2.2.2 From Darwin to Teilhard

A major misinterpretation of the theory of organic evolution is that it is necessarily a denial of religion or of belief in God. According to John A. O'Brien:

Fourth-rate popularizers of science, who do not have even a speaking acquaintance with Darwin's own writings, have often pictured this book [*The Origin*] as tending to erase God from the universe. Yet, he [Darwin] concludes that very book with a sentence expressing the grandeur of the creative act of God as disclosed by the concept of evolution.<sup>33</sup>

However, a careful observation will reveal, that Darwin's *Natural Selection* has no special interest in man. A radical change in man's environment could result in the total disappearance of the human species. Just as the dinosaur had become extinct, a new species might arise, capable of taking over from man his present supremacy.

Not all evolutionists were prepared to believe that natural selection could safely be relied upon to perfect man's nature, or, indeed, that man could have been elevated to his present heights merely as a consequence of its operations. One among them was Henri Bergson. Although he accepted the fact of evolution and did not try to defend the orthodox view that man was separately created by God, he sought to show that man's emergence on the earth—or, at any rate, the emergence of beings endowed with freedom—is nevertheless no accident of natural selection.

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<sup>32</sup> Fletcher, p. 88.

<sup>33</sup> John A. O'Brien, *Evolution and Religion: A Study of the Bearing of Evolution upon the Philosophy of Religion* (New York: Century, 1932), p. 49.

### **i. Henri Bergson (1859 – 1941)**

Early in the 20<sup>th</sup> century, Bergson, a French process metaphysician, expounded a philosophical theory in his *Évolution créatrice* (1907; *Creative Evolution*). The theory presented an evolution in which a free emergence of the individual intelligence could be recognized. It was thus wholly distinct from previous deterministic and mechanistic hypotheses that represented evolution as conditioned either by existing forces or by future aims. Bergson based his theory on the distinction between matter and the *élan vital* (*vital impetus* or *life force*), the progress of which he saw as a line continually bifurcating or diverging from its course.<sup>34</sup>

The *élan vital* has succeeded in penetrating matter and has thus given rise to living beings. However it is limited by the matter and the environment within which it works. It does not possess deliberate plans—the deliberate intention, for example, of creating man. It radiates like a fan, trying to conquer matter in this way or that, until it finds that it can progress no further in a particular direction. It then retreats to make the same attempt elsewhere. It created insects, for example, but failed in its task of imposing intelligence on them; the ant-heap and the bee-hive represent the highest levels of its achievement in that particular line of development.

In man, according to Bergson, evolution has satisfied itself; it has produced a being who possesses “the largest possible amount of indetermination and liberty.”<sup>35</sup> Evolution was bound to produce man or a being who is, as it were, man’s *moral equivalent*. In man, Bergson goes on to suggest, evolution developed a being who is endowed with the intrinsic power of growing further in that direction in which evolution has so far moved, if only he chooses to exercise that power. The universe, Bergson says, is a “machine for the making of gods” but it depends on human effort whether that “essential function” of the universe is exercised. It is an important presumption of Bergson’s theory of evolution, as contrasted with Darwin’s, that at a certain point in the evolutionary process there has been a leap: “man alone has cleared the obstacle.” The animal kingdom as a whole, whatever path it took, found it impossible to make the leap into freedom.<sup>36</sup> These thoughts greatly influenced Teilhard de Chardin.

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<sup>34</sup> “Henri Bergson,” *Microsoft Encarta Encyclopedia 99*, CD-ROM. 1993-98 Microsoft® Inc.

<sup>35</sup> Henri Bergson, *Creative Evolution*, trans. A. Mitchell (London: MacMillan, 1960), p. 265.

<sup>36</sup> *Ibid.*, p. 279.

## ii. Julian Huxley (1887 – 1975)

Julian Huxley accepted evolution as a worldview. For him, the entire universe was in a process of evolution with different aspects (physical, biological, social). From this followed a host of ethical and metaphysical implications. Humans possess, he says, hidden powers whose nature they have not yet appreciated. Man, it therefore appears, has a future before him in which his uniqueness will be made more apparent.

## 2.3 THE ORIGIN OF THE TEILHARDIAN VIEW

In one way or the other there has been a growing insistence, in opposition to Darwin, that man, whatever be his origins, is unique: unique in his freedom and unique in his power of co-operating with—or perhaps working against—the process of evolution. Man has developed out of lower forms of living organisms, yet the unique characteristic of self-consciousness represents an *emergent* quality, not defined purely in terms of living processes and still less in terms of physico-chemical reactions.

But if man has thus *emerged*, the further conclusion is drawn, there is good reason for believing that something higher than man may yet be evolved, some form of superhuman being, with psychical powers we can yet only guess at, perhaps a God, perhaps gods. There is no conflict, so a number of philosophers have sought to show, between religion and evolution. It has been a matter of controversy, however, whether the evolutionary theory demonstrates the need for a new religion to include the new idea of an evolving universe or whether nothing more is needed than a transformed Christianity.

These tendencies converge in Teilhard. Evolution, he suggested, first moves towards the perfection of man in new forms of social organization and ultimately to man's union with Christ, which involves the unification of all things. Science thus prepares the way for "the coming of Christ."<sup>37</sup> The world is moving towards a society infused by mutual love, an organized society in which men can live as ultra-human beings and whose sole evil is disunity. Writing all of half century later, Teilhard was bound to accept far more of the Darwinian standpoint, yet he has recourse to some inner

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<sup>37</sup> Teilhard de Chardin, *Science and Christ*, trans. René Hague (London: William Collins Sons, 1965), p. 80.

principle “which alone,” he says, “could explain its irreversible advance towards higher psychisms.”<sup>38</sup>

It is certain that Teilhard’s views agree very closely with those of most other biologists when he speaks of the origin of life. Except that he postulates that “at this particular moment of terrestrial evolution, [there is] a coming to maturity, a threshold, a crisis of the first magnitude, the beginning of a new order. This awakening or jump *could* or was *bound* to happen.”<sup>39</sup> This seems to be of utmost significance not merely for Teilhard’s own system but because it yields to us a pattern fraught with as much significance as evolution itself. All that has happened since in molecular biology has gone to support this view.<sup>40</sup>

In the very beginning of the chaos produced from the *big bang*, all the elements which have emerged in evolution, and which are still emerging, were there. Anything that we recognize as existing now must have been there in the beginning, in however a tenuous form. Consciousness, thought, spontaneity, and of course the life-principle, were all there. “In the world nothing could ever burst forth across the different thresholds successively traversed by evolution (however critical they be) which has not already existed in an obscure and primordial way.”<sup>41</sup>

The picture that emerges is an interesting one, because it gives an analogical description of the conflicting psychological forces within personality. The *explosion* or rebellion is the force, which encourages self-assertion, independence, separation. But there remains in the separated fragments the original tendency to coherence. Things and people tend to reunite in groups—from atoms to personalities: and this is the principle of Mind, which Empedocles and Anaxagoras, two and a half millennia ago, postulated as the principle of order and creation.<sup>42</sup>

Evolution shows a world in which nothing remains the same from one moment to another, and thought belongs to that world. The universe is dynamic within and without. As we trace its progress through past history, we become objective because we can see it

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<sup>38</sup> Hanson, p. 17.

<sup>39</sup> Chardin, *The Phenomenon of Man*, p. 79.

<sup>40</sup> Hanson, p. 13.

<sup>41</sup> Chardin, *The Phenomenon of Man*, p. 71.

<sup>42</sup> Hanson, p. 87.

as a whole. The trouble is that we can never see enough of it, and though we see what we do see objectively, our view is still unbalanced because of what we still cannot see. What we cannot see we have to guess at, and the guesses of the physicists do not agree with the guesses of the biologists, nor indeed those of the biologists and paleontologists with each other. It is in the matter of these guesses that Teilhard is sharply criticized. What he calls “the automatic suppression of the peduncles”<sup>43</sup> means that we can never find actual evidence of the growth of a new phylum. As far as we can see, first it is not there and then it is. This is well enough known as far as *homo sapiens* is concerned, but Teilhard points out that it is a rule which holds good throughout the whole process; and that is why our evidence is of the logical rather than the empirical kind. Looking at the whole picture as far as it is available to us, evolution is the most reasonable hypothesis; but it cannot be proven scientifically.<sup>44</sup>

When accepted as a working hypothesis, it means that the universe is in continual movement, not necessarily from less good to more good, but in a general direction. It need not be moving steadily in that direction: it may be swinging from side to side like a pendulum, with or without any alteration in the length of the swing. It may be following a spiral course: if so, the result might look like the seasons of the year, which follow a general similarity of pattern but are never twice the same. An alternative is a great cycle, at the end of which events repeat themselves exactly: this was the belief of the **Jains** and the **Stoics**, and certain sections of the **Hindus** and even **Buddhists**. These views form two general groups, the directional and the cyclic, possibly reflected in the two schools of thought in astro-physics—the *big bang* theorists and the *continuous creation* theorists.

The former is the one generally in favor at the moment, and it is the one which Teilhard accepts. It is interesting to see how consistent it is with his general thesis, and how inconsistent with some of the criticisms that have been made of him. Teilhard’s system makes no claim to novelty. In fact very little that he says is new, but his genius lies in so co-ordinating a number of ideas already known in other times that they make sense for our time. His actual thesis on the concept of evolution is the topic of discussion in the following chapter.

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<sup>43</sup> Chardin, *The Phenomenon of Man*, p. 90.

<sup>44</sup> Hanson, p. 85.

## CHAPTER III

### EVOLUTIVE CREATION

*Evolution is a light illuminating all facts,  
a curve that all lines must follow.*<sup>45</sup>

#### 3.1 MAN'S PLACE IN THE WORLD

In 1959 at the University of Chicago, fifty outstanding international scholars assembled for a Darwin Centennial celebration. They drafted the following definition for evolution:

Evolution is definable in general terms as a one-way irreversible process in time, which during its course generates novelty, diversity, and higher levels of organization. It operates in all sectors of the phenomenal universe but has been most fully described and analyzed in the biological sector.<sup>46</sup>

As of today, the science of evolution is only in its infancy. In scientific circles, there is no longer any debate as to whether or not man is a product of an evolutionary process. However, there is great speculation as to how that process operates—whether it shows *direction* or is entirely haphazard.<sup>47</sup> Since Galileo, in the eyes of science, man has continually lost, one after another, the privileges that had previously made him consider himself unique in the world. By three successive steps in four centuries, man has seemed to dissolve in the common ground of things. *Astronomically*, he was engulfed in the enormous anonymity of the stellar bodies; *biologically*, like every other animal, he vanished in the crowd of his fellow-species; *psychologically*, an abyss of unconsciousness opened in the center of his *I*.

A century ago, man considered himself as a simple observer; then after Darwin, as a simple branch of evolution. But now, as a result of this incorporation in biogenesis, he is beginning to perceive that the principal shoot in the tree of earthly life passes through him. Life shows an absolute direction of progress towards the values of growing

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<sup>45</sup> Chardin, *The Phenomenon of Man*, p. 219.

<sup>46</sup> Henry Kenney, *A Path through Teilhard's Phenomenon* (Ohio: Pflaum Press, 1970), p. 22.

<sup>47</sup> Bernard Delfgaauw, *Evolution*, trans. Hubert Hoskins (London: William Collins Sons, 1961), p. 10.

consciousness, and on this principal axis man is the most advanced term that we know. Man is no longer at the center but is acting as the leading shoot of the world in growth.<sup>48</sup>

The evolution Teilhard sets forth is one “grand orthogenesis of everything living towards a higher degree of spontaneity.”<sup>49</sup> Accordingly, his concern is to establish that such an evolution does not happen merely by *chance*. Whoever takes the time to unravel it will find it intelligible. Its significance lies in its direction. It terminates in man and consequently man is the key to the universe. Teilhard appeals directly to the facts displayed by his own sciences of geology and paleontology. Ever since the earth was formed, not less than five and probably not more than ten thousand million years ago, it has displayed a unidirectional trend. It cannot be said whether the world, or indeed the whole universe of matter, was preceded by one or a series of other universes. It may be that the process is cyclical at that level. But within the fantastically long time-scale of the present universe there can be no doubt, according to Teilhard, that events have occurred along a unidirectional axis. Minor axes have developed at all stages, like branches from a tree. The tree continues to grow and flourish, and its topmost shoot, in the axis of the trunk, is the essential *growing-point*.<sup>50</sup>

## 3.2 TEILHARDIAN TERMINOLOGY

To get a clear grasp of Teilhard’s worldview, we need to understand three important neologisms coined by him:

### 3.2.1 The Law of Complexity-Consciousness

Left long enough to itself, under the prolonged and universal play of chance, matter manifests the property of arranging itself into more and more complex groupings, and at the same time in ever deepening layers of consciousness; this double and combined movement of physical unfolding and psychic interiorisation (or centration) once started, continuing, accelerating and growing to the utmost extent.<sup>51</sup>

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<sup>48</sup> Teilhard de Chardin, *The Appearance of Man*, trans. René Hague (New York: Harper & Row, 1965), p. 268-9.

<sup>49</sup> Chardin, *The Phenomenon of Man*, p. 151.

<sup>50</sup> Towers, p. 32.

<sup>51</sup> Chardin, *The Phenomenon of Man*, pp. 60-1.

This key concept of Teilhard states two things:

- i. Throughout evolution, there has been a tendency for matter to become increasingly complex in organization.
- ii. With increase in material complexity, there is a corresponding rise in the consciousness of the matter (or organism).

### 3.2.2 The Two *Energies* (Tangential and Radial)

Consciousness is not something imported or injected into matter, it is one of its fundamental properties or *faces*. The process of complexification comes about through an internal propensity of matter to unite.

Teilhard distinguishes this long-recognized form of energy, in which there is a *natural* flow from less probable to more probable states as *tangential energy*. But there is another form of natural energy, which leads to a build-up of *stored complexity* (increase in the degree of interiority), from the building-bricks of hydrogen (or rather its component sub-atomic particles) to the staggering organization that is self-reflective man. This, Teilhard calls *radial energy*.

This feature of the physical world had been largely ignored by scientists, who concentrated on the analysis of the other tendency discernible in the universe, that of organized matter to disintegrate and become more random and dispersed. Scientists have spent their time reducing complexity to simpler forms of organization. Every successful analysis has been welcomed as an “explanation” of the complex that had been taken to pieces. It is not surprising that the enterprise looked like ending up with the random chaotic movement of atoms rather than a synthetic vision.

### 3.2.3 The *Third Abyss*:<sup>52</sup>

Through the increasing complexity of organisms and finally of the nervous system there is a *rise of consciousness*: such is the way in which the axis of *cosmogensis* can be defined.<sup>53</sup> Pascal’s two infinities, the two abysses of greatness and inferiority, must be supplemented and opposed, by a third: *the infinite of complexity*<sup>54</sup>

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<sup>52</sup> Henri de Lubac, *Teilhard Explained*, trans. Anthony Buono (NY: Paulist Press, 1968), p. 44.

<sup>53</sup> Chardin, *The Phenomenon of Man*, p. 140.

<sup>54</sup> *Ibid.*, p. 23.

which succeeds in burrowing itself in man, in whom evolution finally becomes conscious of itself. Teilhard asserts:

In fact, I doubt whether there is a more decisive moment for a thinking being than when the scales fall from his eyes and he discovers that he is not an isolated unit lost in the cosmic solitudes, and realizes that a universal will to live converges and is hominized in him.<sup>55</sup>

### 3.3 THE INTUITION AND THE PROJECT

The universe involves man; and at the term of vital evolution, man may picture the universe to himself and think, in Julian Huxley's phrase, that "Man is nothing else than evolution becoming conscious of itself," and that "the consciousness of each one of us is evolution looking at itself and reflecting on itself."<sup>56</sup> Teilhard belongs to a relatively small number of paleontologists who persist in regarding evolution as "progress." In this, his position is the same as that of Julian Huxley; but behind his conviction lies the fact that he is a Christian. He sums up his view into four interrelated propositions:<sup>57</sup>

1. The cosmos under all its aspects, including man, is to be understood only as a continuous process of evolution, in which each phase has its distinctive period. From a purely biological standpoint, a forward movement of life can be read from the increasing complexity of the brain-and-nerve mechanisms.
2. Matter is in principle *conscious* matter; but it requires a high degree of organisation to enable it to cross the threshold beyond which it can begin to manifest itself as consciousness.
3. In matter a dual energy is operative: *tangential energy* informing and controlling matter in its normal physico-chemical reactions—and *radial energy* by which matter is constituted as progressively higher forms of unity.
4. There is a parallelism between *complexity* (material synthesis) and *interiority* (consciousness). They are two facets of one and the same phenomena.

The point of these propositions will become clear if we trace in very rough outline the course taken by the development of living creatures. After the original bifurcation into plant and animal kingdoms, both have continued to evolve. Since man is in the direct line of extension with the animal kingdom, we shall speak only about that.

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<sup>55</sup> Ibid., p. 36.

<sup>56</sup> Rideau, p. 47.

<sup>57</sup> Delfgaauw, pp. 29-30.

In the animal kingdom various ramifications occurred—many attempts to arrive at a higher organization of life. Two branches acquired a place of dominance because in them life attained higher and more varied structures than anywhere else. These are the *articulata* (jointed animals, arthropods) on the one hand, and the vertebrate animals on the other. The former culminated in the insects, especially the social insects like ants and bees, and the latter in the mammals, with man at the top.

Both apexes are characterized by a highly developed cerebral and nervous mechanism. In the case of the insects, all development has ceased. In an anatomical context, Teilhard associates this with the insects' external armor, which inhibits further development of the brain. The other branch of life that continues to evolve is man who has found a means to keep his development going—not any more along anatomical lines, but by way of the mind or spirit. As Teilhard has said at the end of his foreword to *The Phenomena of Man* “man is seen ‘not as a static centre of the world...’ but as the axis and leading shoot of evolution.”<sup>58</sup>

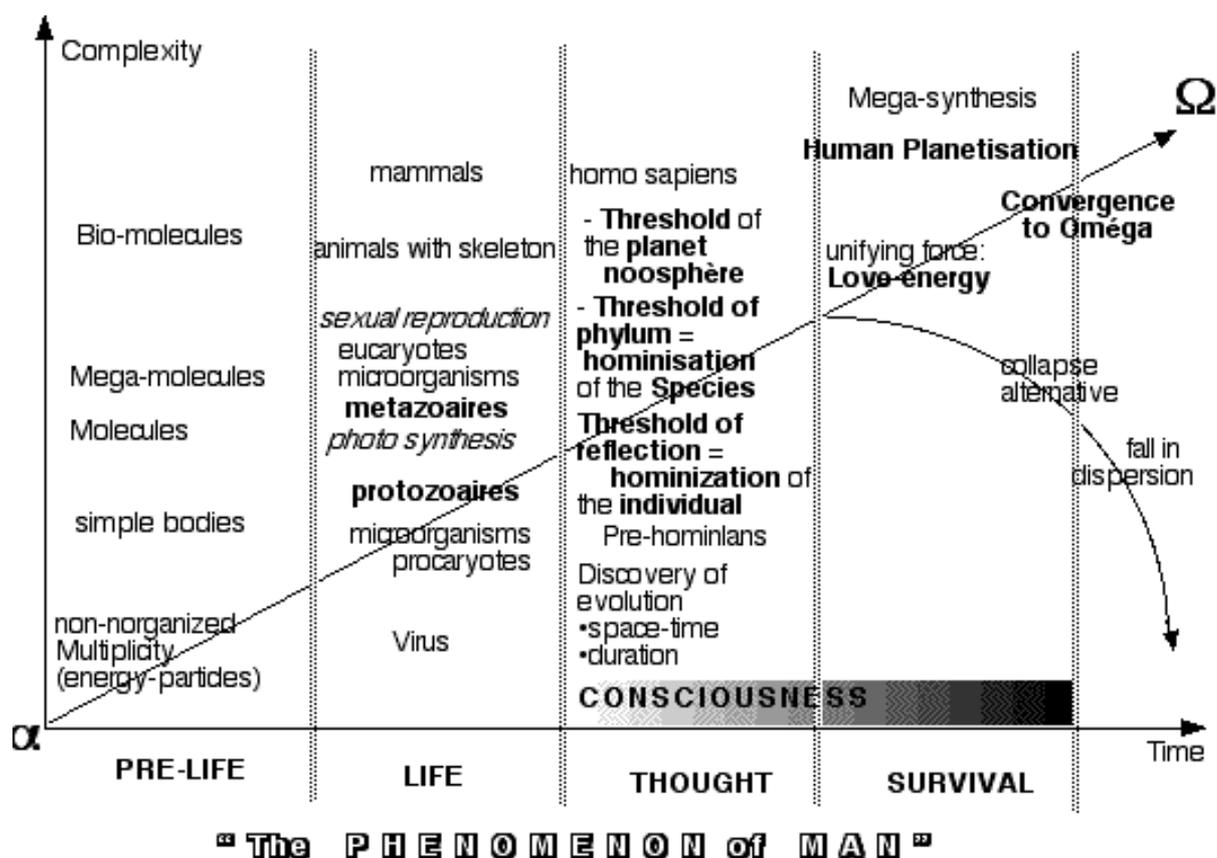
Consciousness, then, is tied to this mechanism, the mounting complexity of which involves an increase in consciousness. It is this cohesive relation between complexity and consciousness, which supplies the link binding the propositions mentioned earlier. It is the guiding force through the whole complex of living forms.

When observed through a sufficient depth of time, Life can be seen to *move*. Not only does it move but it advances *in a definite direction* [...] so much so that one could draw a steadily rising Curve of Life, taking time as one co-ordinate and, as the other, the quantity (and quality) of nervous tissue existing on earth at each geological stage.<sup>59</sup>

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<sup>58</sup> *The Phenomenon of Man*, p. 36.

<sup>59</sup> Teilhard de Chardin, *Let Me Explain*, trans. René Hague (London: William Collins Sons, 1974), p 30.



**Figure: Evolution according Teilhard de Chardin.**

The vertical axis shows complexity and the horizontal shows development in time. Evolution is divided into sectors, the first showing the period before life originated. The next shows life and development of species from virus to mammals. Then comes the development of thought and self-consciousness. The final period is the one recently started. Here we see that life may come to an end, or, humanity may reach the Omega point. The most complex manifestation of consciousness for the physical human being is the Noosphere, a collective *shell* or *membrane* of consciousness enveloping the Earth.<sup>60</sup>

<sup>60</sup> Figure courtesy: "The Phenomenon of Man." <http://www.perso.wanadoo.fr/.../PHfigAnglais.gif>.

### 3.4 THE PHENOMENON OF MAN AS THE CRUX OF TEILHARD'S THOUGHT<sup>61</sup>

Teilhard's religious thinking forms a unity with his *worldview*, in the most literal sense of the term. That worldview constitutes the primary and most comprehensive theme of *The Phenomenon of Man* (written in Peking between 1938 and 1940). The entire universe is seen to be in a continuous process of development; and man in the middle of it all. What does this mean for our life and for our relationship to the world, to our fellow beings and to God? Teilhard was repeatedly putting into words his vision of these questions and he did this most comprehensively of all in *The Phenomena of Man*.

The expression "the phenomena of man" points to the empirical fact of the appearance in the universe of the power of reflection and thought. For enormous periods, the earth lacked any real manifestation of life. Then for another enormous period, in the layer of organic matter which appeared on its solid or watery envelope, it presented only signs of spontaneity, and that of unreflective consciousness. The animal feels and perceives; but it does not appear to know that it feels and perceives. Finally, in a relatively recently epoch, spontaneity and consciousness acquired on earth, in the zone of life that had become human, the property of isolating and individualizing themselves in their own right. Man knows that he knows. He emerges from his action. He dominates them in however feeble a way. He can therefore abstract, combine and foresee. He reflects. He thinks.<sup>62</sup> Being reflective, man is not only different but quite other. It is not merely a matter of change of degree, but a change of nature, resulting from a change of state.<sup>63</sup>

Teilhard enlarges the perspectives of biological evolution to cosmic proportions—proportions that would include the past *and* the future, the subhuman *and* the human, the individual *and* the social. This is the work of *The Phenomenon of Man*. If the theory of evolution itself does not evolve into a truly cosmic vision, there is, according to him, no possibility of reconciling these realities.

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<sup>61</sup> Delfgaauw, p. 19.

<sup>62</sup> Chardin, *Let Me Explain*, p. 34.

<sup>63</sup> *Ibid.*, p. 40.

### 3.5 CHRISTIFYING EVOLUTION

Teilhard's scientific studies convinced him beyond all doubt that just as an individual is in a continuous state of dynamic interaction with his environment so too, in the evolutionary process, are individual species and other, larger, taxonomic groups. "Evolution," he says, is "a general condition to which all theories, all hypotheses, all systems must bow, and which they must satisfy henceforward if they are to be thinkable and true. Evolution is a light illuminating all facts, a curve that all lines must follow."<sup>64</sup>

Teilhard takes a leap in this discussion by seeking to *Christify* evolution. In answering the question as to whether there are two evolutions or one, Teilhard points out that in the most general way that evolution *is* his resolution for the conflicting loves of God and the world. He was convinced that the Christian could not be *double-hearted*; somehow these two dimensions must be unified in such a way as to do justice to both.

For the final stage of Christ, St Paul uses the term *pleroma*, the fullness or completeness which Christ will possess at the end of His growth, which is the end of time. Within history, then, there is a *Christogenesis* going on. At the same time there is anthropogenesis—mankind proceeding to higher forms of psychosocial existence. As a consequence, this question occurred to Teilhard: what is the relation between the two apparently separate processes of evolution, human and Christic?

If men could only see that in each one of them there is an element of the *pleroma*, would not that effect the reconciliation between God and our age? If only they could understand that, with all its natural richness and its massive reality, the universe can find fulfilment only in Christ: and that Christ, in turn can be attained only through a universe that has been carried to the very limit of its capabilities. For God initiated the immense movement of material and organic evolution.<sup>65</sup>

Evolution is the key to such a unification, but not evolution understood merely as the origin of higher species from lower ones. Rather, the two are seen as grounded in two evolutions (cosmic and Christic), which interpenetrate and reinforce one another. "Just as there is no conflict between my foot and me, there is no conflict but rather the closest possible unification between Christ and the world, between Christ's love and the world's growth."<sup>66</sup>

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<sup>64</sup> Chardin, *The Phenomenon of Man*, p. 219.

<sup>65</sup> Kenney, pp. 26-7. Original quote in *Writings in the Time of War*, p. 220.

<sup>66</sup> *Ibid.*, p. 19.

The above note is precedent enough for Teilhard's quest to adapt Christianity to contemporary evolutionary thought. Such integration calls for a new awareness of the value of creatures and of man's heightened responsibilities for the world now known to be in evolution. Put in another and dramatic way, his apologetics to Christians is an attempt to wake and liberate Catholic thought and show them how to *Christify* evolution.

By all accounts the greatest original idea of the past hundred years is that of evolution. What Teilhard sought to do for Christians is to show them how to view Christ and the future of man against the backdrop of evolution. The great schism which threatens the Church, and therefore the Christian, is the fact that *Christian* and *human* no longer tend to coincide. *Christifying* evolution is an effort to see the grandeur of an evolving universe, illumined from within by Christ, the *Evolver*. He seeks to show the Christian that cosmogenesis, the evolution of the cosmos, in all reality is a Christogenesis, the evolution of Christ. For one committed to the person and action of Christ, this necessarily invests the world with a splendour and a dynamism it lacks for one who finds Christ only in the liturgy and personal prayer.

If the world is convergent and if Christ occupies its centre, then, [...] Christ invests Himself organically with the very majesty of his creation. And it is in no way metaphorical to say that man finds himself capable of experiencing and discovering his God in the whole length, breadth and depth of the world in movement.<sup>67</sup>

Thus with the Epistles as a starting point, he will elaborate his teaching on the *cosmic Christ*, or the *universal Christ*, which later becomes the doctrine of the *evolutive Christ*. For this, he undertakes to Christianize the new dynamic representation of the cosmos—just as Paul had to Christianize certain Stoic views.<sup>68</sup> In this regard, Teilhard loves to cite: *In ipso condita sunt universa... Omnia in ipso constant.* (In Him things were made... In Him all things hold together).<sup>69</sup>

In particular, it is Teilhard's attempt to sketch a *metaphysics of union* that raises questions concerning God and an evolutionary creation. With regard to the doctrine of God, his ideas raise more questions than they answer, but at the same time, they provide suggestions for answers which may well prove to be more fertile and more coherent with

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<sup>67</sup> Chardin, *The Phenomenon of Man*, p. 297.

<sup>68</sup> Lubac, *Teilhard Explained*, p. 14.

<sup>69</sup> *Ibid.*, p. 15. Original quote in *The Appearance of Man*, p. 215.

the total structure of human knowledge than any previous ones. With this background, we now sketch briefly the theory which Teilhard described variously as *evolutive creation*, *creative transformation*, and *creative union*.<sup>70</sup>

### 3.6 EVOLUTIVE CREATION<sup>71</sup>

*Creation*, Teilhard says, is not the production of a world fully made in some primordial moment, but is an action in which God brings things into existence through the process of union which is called *evolution*. This is at once a continuous process and a genuine *creation*, in that it produces not merely new forms of being but also more being. Where there is no union at all there is nothingness, and God Himself, perfect union, is the fullness of being. Between these two poles, Himself and nothingness, God brings into existence through union.

In accordance with the mutation theory, Teilhard sees evolution as always proceeding in leaps. Evolution also makes it possible for him to recognize the emergent *new*, which Bergson highlighted in his *Creative Evolution*. The evolution that Teilhard sees is undoubtedly a creative evolution into the bargain: an evolution, which does its own evolving, but is enabled to do so by its utter dependence on the Creator. He sees the self-evolving cosmos as a greater testimony to God's greatness as Creator than a cosmos in which God was forever being obliged to intervene with new acts of creation.

#### 3.6.1 God and Evolutive Creation<sup>72</sup>

Teilhard connects the doctrine of God not only with anthropology but also with our knowledge of nature as a whole. Since the world is evolutionary in nature, he says, "God is no longer conceivable (either structurally or dynamically) except in the measure that, like a sort of *formal* cause, he coincides with the centre of convergence of cosmogenesis"<sup>73</sup> that is, theology can no longer proceed as though God were "structurally detached from His work."

While Teilhard points out that his interpretation of evolution shows that it requires something beyond itself for its completion and for its very existence, he also

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<sup>70</sup> Chardin, *Writings in Time of War*, p. 152.

<sup>71</sup> Delfgaauw, p. 34.

<sup>72</sup> Hanson, pp. 41-4.

<sup>73</sup> *Ibid.*

says that this must be discovered through some other means of knowledge than the purely natural. Teilhard maintains, “By itself science cannot discover Christ, but Christ satisfies the yearnings that are born in our hearts in the school of science.”<sup>74</sup> Teilhard’s religious thought must not be seen as an extension of his evolutionary ideas: it would be closer to the truth to say that his evolutionary perspective is an extension of his faith in the Incarnation.

In exploring the issues which the theory of evolutive creation raises for our understanding of God, we must keep in mind this dual setting of the doctrine of God. On the one hand, our knowledge of God comes from God, above all from his self-revelation in Jesus Christ. On the other hand, we must not make the mistake of supposing that we can think of God apart from the world. As the world’s *Omega*, God is not to be found apart from the beginning, ongoing, and the end of creation.

### 3.6.2 The Evolutive Christ (*Christogenesis*)

In a universe conceived of as evolving (in the complete sense of the word, no longer only tellurical or biological, but spiritual), Christ must be called the *evolutive* (cosmic) Christ. For if everything has been created in Christ “as in the supreme center of harmony and cohesion which gives the world its meaning, its value, and thereby its reality,” and if “the universal Christ means that Christ exerts a physical influence on all things,” then to maintain this total influence He must be conceived of as exerting Himself in some manner over the evolution of the world.<sup>75</sup>

The whole Teilhardian programme in this regard is summed up in a *new Christology*—a Christology “extended to organic dimensions of our new universe.” He goes on to explain further that it is a question of “endowing the traditional Christology with an increase of actuality and vitality.”<sup>76</sup> As he says, “the universe is fulfilling itself in the synthesis of centres in perfect conformity with the law of union. God, the Centre of centres. In that final vision the Christian dogma culminates. So perfectly does this coincide with the *Omega* point.”<sup>77</sup>

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<sup>74</sup> Chardin, *Science and Christ*, p. 36.

<sup>75</sup> Lubac, *Teilhard Explained*, p. 17.

<sup>76</sup> Chardin, *The Phenomena of Man*, p. 296.

<sup>77</sup> *Ibid.*, p. 294.

### 3.6.3 How Evolutionary Creation proceeds<sup>78</sup>

What makes such a process work? What makes it go on as it does? What is it that causes the changes that occur at what Teilhard calls, *critical points*, such that life appears where there was no life and thought, where there was no thought? Two such *critical points* are the emergence of life and the emergence of man. We shall consider a brief discussion of these aspects.

#### i. The Emergence of Life<sup>79</sup>

The common conception of matter is of an inert and non-dynamic substance. If a worldview stems from such conception of matter, there certainly will be no intelligible place or meaning for life, human thought and love. These will be unintelligible, valueless absurdities. However, if one begins as Teilhard does, with matter that is actively and dynamically oriented towards bringing forth life, then man has a defined place and a priceless worth. In a genetic view of the cosmos, life is the very impetus of matter towards consciousness and spontaneity. And the fullest expression of these lies in man's reflective consciousness and creative freedom.

For Teilhard *life* is not an inexplicable anomaly; it is not incidental to the cosmos nor is it accidental. *Life* is a huge and necessary centre of the cosmos. The most basic law of the created cosmos is that it evolves to ever higher and more complex unities—to ever-greater interiority. Life with its interior of self-organisation, is palpably a higher form of matter than inorganic or organic compounds—be they stars or proteins.<sup>80</sup>

So far as the earth is concerned, the great step forward was when chemistry achieved the preparation of organic substances by artificial means. However, the development of life out of lifeless matter continues to be a hypothesis, because we cannot, of course, at a subsequent moment in the earth's history catch such a development in the very act, so to speak; nor has it ever, as yet, being made to happen in the laboratory. The hypothesis will only become a thesis if we do indeed succeed in producing living from lifeless matter. Whether we shall ever succeed in this nobody

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<sup>78</sup> Hanson, p. 52.

<sup>79</sup> Kenney, p. 64.

<sup>80</sup> *Ibid.*, p. 63.

knows. If not, the proposition will always remain a hypothesis. Teilhard regarded it as by no means out of the question that such an experiment might one day prove successful.<sup>81</sup>

How then, can life arise out of what is lifeless? To this pertinent question Teilhard gives a paradoxical reply: only because the lifeless is not really without life, simply on account of the fact that from the outset all matter contains a primitive germ of life (consciousness).<sup>82</sup> Teilhard has no wish to philosophize—only to see what the phenomena are and to describe them. That what is living evolves from what is lifeless is a scientific hypothesis in that it has to do with establishing a connection between phenomena. However, when he postulates that what is lifeless has nevertheless a certain primitive degree of life in it—because we cannot otherwise understand or envisage how life could evolve from what is lifeless—he is actually putting up a philosophical thesis. This is because, what is being proposed falls *per se* and in principle outside the wholly phenomenal world and can only be based on requirement of our thinking.

The scientist is confronted with the following choice. He can assume that what is living has evolved from what is without life. He can dismiss the question with an *ignoramus et ignorabimus* (we do not know, and we never shall). He can postulate that life has a wholly peculiar source: it is a new creation on God's part, subsequent to the inanimate cosmos. The first position is in the nature of scientific hypothesis; the second amounts to a scientific agnosticism, which scientifically, does not get us anywhere; the third offers a theological, or perhaps philosophical, answer to a scientific question. At first sight the third possibility might seem to be the most attractive one for the Christian, because it demonstrates, by implication as it were, God's existence. Yet this demonstrative character is not so conclusive as to disqualify the other two positions. It is even questionable whether an appeal to God's activity as Creator is in place here. If we do in fact suppose that life has not originated from what is without life but is a new act of creation by God, then we are taking a philosophical-cum-theological line in order to short-circuit a scientific problem. The only scientific way of stating the issue, surely, is to postulate that what is living has evolved from what is lifeless.<sup>83</sup>

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<sup>81</sup> Delfgaauw, p. 69.

<sup>82</sup> *Ibid.*, p. 65.

<sup>83</sup> Delfgaauw, pp. 67-8.

## ii. Man from Ape?

Human reflection is “something new on the face of the earth.” It is qualitatively discontinuous with previous consciousness; it is a radically new psychological form. Still, there is a continuity between animal consciousness and human self-reflection. Man did arise from lower forms of life and consciousness. Hence, the evolutionary paradox and dialectic: change with permanence, discontinuity in continuity, multiplicity and unity. Julian Huxley analyses the difficulty in the following way:

Minimising the difference between animals and ourselves by unconsciously projecting our own qualities into them is the way of children and of primitive people... this is partly because we have often been guilty of the fallacy of mistaking origins for explanations... If it can be shown that man originated from an animal, then in all essentials he is nothing but an animal. We have a [fallacious] way of thinking that if there is continuity in time there must be continuity in quality.<sup>84</sup>

### 3.6.4 *Omega* as Prime Mover Ahead

Teilhard postulates God as the *Omega point*. Evolution, he says, has been ceaselessly moving in a certain direction. If it is to continue as it has done, it must move towards the increase of *complexity-consciousness*, and this process must have a goal. It must have a goal because a unitary goal is essentially required by the unifying nature of the process; and because it will not work through human consciousness without a goal. This goal is *God-in-Christ*, the *Omega point*.<sup>85</sup> God is the *motive force* which makes evolution work, and in some sense the form which evolution will ultimately arrive at. Since *Omega* is the moving force of creation, it must be in His role as *Omega* that Christ is the agent of creation, something of Him must be present and operative from the beginning. Teilhard expresses it as follows:

God willed His Christ—and in order to have His Christ, He had to create the spiritual world, and man in particular, upon which Christ might germinate—and to have man, He had to launch the vast process of organic life and the birth of that organic life called for the entire cosmic turbulence.<sup>86</sup>

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<sup>84</sup> Qtd. in Kenney, p. 66. Original quote in Julian Huxley, *Evolution in Action* (New York: Harper & Brothers, 1953), pp. 147-8.

<sup>85</sup> *Ibid.*, pp. 146-57.

<sup>86</sup> Chardin, *Science and Christ*, p. 79.

### 3.6.5 Why “Christ” *Omega*?<sup>87</sup>

What exactly is this *motive force* of evolutive creation? What provides the push or pull that brings about evolutionary advance? In some of his early writings Teilhard raised the question of the *universal element* found throughout creation which makes union possible. This universal element, present in every particle of being, is “the penetrating influence of Christ-Omega.”<sup>88</sup> It is “the will of God, conceived as a special energy instilled into beings to animate them and order them towards their end.” It is “God’s creative action.” The real universal element is the “cosmic influence of Christ.” This attractive force of the *Omega* is recognized by man as the goal of his evolution.<sup>89</sup>

## 3.7 CLARIFICATIONS

This provocative thesis of Teilhard may lead to a few mistaken notions. Two of the most prevalent ones are:

### 3.7.1 This position is one of *Semi-Creationism*

A *semi-creationist* might see Teilhard’s position this way. Once terrestrial evolution has led to the emergence of mega-molecules, the substratum is ready for life. At that juncture, the Creator intervenes by *animating* this material substratum with life. Such semi-creationism is not what Teilhard had in mind. His thesis is: *The organisation of matter reaches such a state of complexity in the mega-molecules that life is able to be manifested. In virtue of the degree of complexity, interiority has scope for expressing itself.*<sup>90</sup> Each phase in the life process has a time proper to itself. This means that only during one period in terrestrial evolution were circumstances—the global sea, the temperature and so forth—of such a nature that this transition could take place. We cannot rule out the possibility that those circumstances might someday be reproduced in a laboratory. Once life has arisen—that is, has become visible—it seeks for different ways in which to evolve.

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<sup>87</sup> Delfgaauw, p. 47.

<sup>88</sup> Chardin, *Writings in the Time of War*, pp. 289-302.

<sup>89</sup> Hanson, p. 50.

<sup>90</sup> Delfgaauw, p. 30.

### 3.7.2 This position is a kind of *Materialism*<sup>91</sup>

To say that man has come from the ape by a process of biological evolution would seem so if Teilhard were to have understood matter as *dead* matter in the materialist's sense. But for Teilhard, matter means something quite different. Simultaneously and inseparably, it has its exterior physico-chemical aspect and its interior vital, conscious aspect. The greater the complexity with which matter is organized, the more its interiority—that is, its life, its consciousness—grows.

With respect to evolution as having an **inherent determinism**, Teilhard says that it is in the very possibility of giving and withholding of assent, that man is disclosed as self-consciousness and so as the axis and spearhead of evolution. In man, evolution has led to a self-conscious and free being—two characteristics indissolubly bound up together. As Teilhard would say, “*L’animal sait, l’homme sait qu’il sait*” (And animal knows but man knows that he knows). But this turning back to oneself is at the same time freedom. He evidently sees freedom under its double aspect of freedom of choice and interior freedom (self-realisation) in their mutual cohesion.<sup>92</sup>

That is why the concept of evolution does not imply that everything is determined and that there is no such thing as human freedom. As matter develops into living matter it discloses, along with the growth of consciousness, a first blueprint, as it were, of freedom. Consciousness and freedom are correlative. That is precisely why in man, evolution has not only become conscious of itself but has also taken hold upon itself—which is to say that evolution from now on is an evolution governed by human freedom. As Teilhard would affirm:

I am convinced that an honest interpretation of the new achievements of scientific thought justifiably leads not to a materialistic but to a spiritualistic interpretation of evolution—the world we know is not developing by chance, but is structurally controlled by a personal Center of universal convergence.<sup>93</sup>

By way of conclusion, it could be affirmed that Teilhard wants to comprehend the material-cum-spiritual world in terms of his thesis regarding the direct proportional relation between material complexity and consciousness (life). As Teilhard himself

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<sup>91</sup> Ibid., p. 34.

<sup>92</sup> Ibid., pp. 42-3.

<sup>93</sup> Qtd. in Lubac, *Teilhard Explained* p. 42.

recognized, his Christian vision influenced his philosophical interpretation of the natural history of the world. In one sense, while remaining scientific, *The Phenomenon of Man* belongs to *Christian* philosophy. Implicitly or explicitly, the whole of Teilhard's work is inspired by faith. And it is, in any case, the pervasive influence of Christianity that makes him reject Plato's and Plotinus's notion of a material universe that has fallen from the divine harmony, and accept the contrary fundamental idea of a *history* in time, extending to the totality of things, of the subordinate value of a *nature* that is capable of rejoining its origin, a truly *Evolutive Creation*.<sup>94</sup>

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<sup>94</sup> Rideau, p. 48.

## CHAPTER IV

# EVOLUTION: A PARALLEL BETWEEN THE SĀṂKHYA THEORY AND TEILHARDIAN THOUGHT

*Spiritual perfection and material synthesis are but two aspects of one and the same perfection.*<sup>95</sup>

Philosophy has always been concerned with the nature, origin and development of the material world. In keeping with their worldview, each of the principal systems of thought explains how the universe is constituted and wither it will return. In contrast to the *reasoning* mind of the westerners, the eastern philosophers arrive at such answers through *realization* because they believe that reason has its limits. Based on this conviction, the Indian sages have put forth a number of theories of creation or evolution of the world. One such theory is the *Sāṁkhya* theory of evolution. This theory seeks to explain the universe from the standpoint of cosmic evolution based on the principle of conservation, transformation and dissipation of energy.

In the history of Indian speculation there arose a stage when the idea of the One, Eternal, Supernatural, Supreme, Omnipotent, Omniscient, Immanent and Transcendent deity as the Mind and Matter of the cosmos, gave place to three co-existing, correlating, eternal entities combining for the evolution of the organic and inorganic world. One system shunted off the Supreme Soul beyond the sphere of its speculation and riveted its attention to the inter-relations of spirit and matter. This atheistic *Sāṁkhyan* philosophy became the most popular system in India.<sup>96</sup> This chapter discusses the cosmogonic speculations of the *Sāṁkhya* school, as they have left a lasting stamp upon all other systems of thought and have struck a mean between the theistic and materialistic theories of evolution.

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<sup>95</sup> Chardin, *The Phenomenon of Man*, pp. 60-1.

<sup>96</sup> Balkrishna, *Hindu Philosophers on Evolution* (Mumbai: D. B. Taraporevala, 1939), p. 91.

## 4.1 THE ORIGIN OF THE TERM ‘SĀṂKHYA’

The origin of the name of this school is possibly from the grammatical equivalent *saṅkhya* which means *number*. It is applied to this philosophy since it aims at a right knowledge of reality by enumerating the ultimate objects of knowledge under twenty-four categories. A more plausible explanation is that the word *sāṅkhya* means *perfect knowledge* (*Samyag jñāna*) and a philosophy in which we have such a knowledge is justly named *Sāṁkhya*. It is also called a school of Pluralistic Spiritualism/ Atheistic realism/ Uncompromising Dualism because it maintains a clear distinction between the two ultimate principles, *Puruṣa* and *Prakṛti*. Though many references are found in ancient texts, *Sāṁkhya* received its classical expression in the *Sāṁkhyakārikās*, “Stanzas of *Sāṁkhya*” by Īśvarakṛṣṇa (3<sup>rd</sup> c. A.D.) and a 16<sup>th</sup> century treatise by Vijñānabhikṣu.<sup>97</sup>

## 4.2 THE SĀṂKHYA THEORY OF EVOLUTION OR CREATION

### 4.2.1 The Components of Evolution

In the *Sāṁkhya* system, *prakṛti* (matter) and *puruṣa* (spirit) are the two ultimate realities. *Prakṛti* is the undeveloped matter containing in itself all the possibilities of all things, which are actualized by the organizing power of the self, *puruṣa*. The concept of *prakṛti* as the ultimate cause of the world, follows logically from the *satkāryavāda* theory of causation—a real transformation of the material cause into the effect, the appearance of a quality due to certain changes of atoms in the cause, and the production of an effect potentially existing in the cause.<sup>98</sup>

#### i. *Prakṛti*

*Prakṛti* is an unintelligible, unconscious, uncaused, eternal, all-pervading, tremendous power, the source of all the evolutes and the final cause of all entities other than *Puruṣa*. It is also called *mūla prakṛti*, *pradhāna*, *avyakta*. The most distinguishing characteristic of the *Sāṁkhya* system is its “*Guṇa* Theory,” which holds that the mental and material objects of the phenomenal world are the combinations in different

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<sup>97</sup> S. C. Chatterjee and D. M. Datta, *An Introduction to Indian Philosophy* (Calcutta: University of Calcutta, 1939), p. 284.

<sup>98</sup> *Ibid.*, p. 287-8.

proportions of the three ultimate, subtle entities technically known as *triguṇa*.<sup>99</sup> These *primal qualities* are held in unity and equilibrium with each other (*sāmyāvasthā*).<sup>100</sup> They are principally important as physio-psychological factors. The highest one is *sattva* (illumination, enlightening knowledge, and lightness); the second is *rajas* (energy, passion, and expansiveness); the third is *tamas* (darkness, obscurity, ignorance, and inertia). These *guṇas* co-operate with each other and combine in various proportions like that of oil, wick and flame, to produce the objects of the world. The multiplicity in the world is traced to the preponderance of the *guṇas*.<sup>101</sup>

## ii. *Puruṣa*

*Puruṣa* is the other ultimate, eternal reality accepted by the *Sāṃkhya* system. One cannot deny one's own existence, as by doing so, one is actually pre-supposing the reality of one's self. The *Sāṃkhyakārikas* assert that the self is not the body, not the senses, nor is it an object of the world. It is the conscious spirit, the transcendent subject whose essence is pure consciousness. It is always the subject of knowledge and never the object.<sup>102</sup>

### 4.2.2 The Process of Evolution

The chain of evolution begins when *puruṣa* impinges on *prakṛti*, much as a magnet draws iron shavings unto itself. Due to the contact between the two, (*samyoga*) the state of equilibrium among the three *guṇas* is disturbed.<sup>103</sup> The *puruṣa*, which before was pure consciousness without an object, becomes focused on *prakṛti*, and the first to evolve is *mahat* or *buddhi* (spiritual awareness). Next to evolve is the individualized ego consciousness (*ahaṃkāra*, the *I-maker*), which imposes upon the *puruṣa* the misapprehension that the ego is the basis of the *puruṣa's* objective existence.<sup>104</sup> The *ahaṃkāra* further divides into the five gross elements (*pañcabhūtas*): space, air, fire, water, earth; the five fine elements (*tanmātras*): sound, touch, sight, taste, smell; the five organs of perception, the five organs of activity and mind (*manas*). The universe is the result of the combinations and permutations of these principles. *Buddhi*, *ahaṃkāra*,

<sup>99</sup> Anima Sen Gupta, *The Evolution of the Sāṃkhya School of Thought*, 2<sup>nd</sup> ed. (New Delhi: Munshiram Manoharlal, 1986), p. 16.

<sup>100</sup> Chatterjee, p. 290.

<sup>101</sup> *Ibid.*, pp. 287-8.

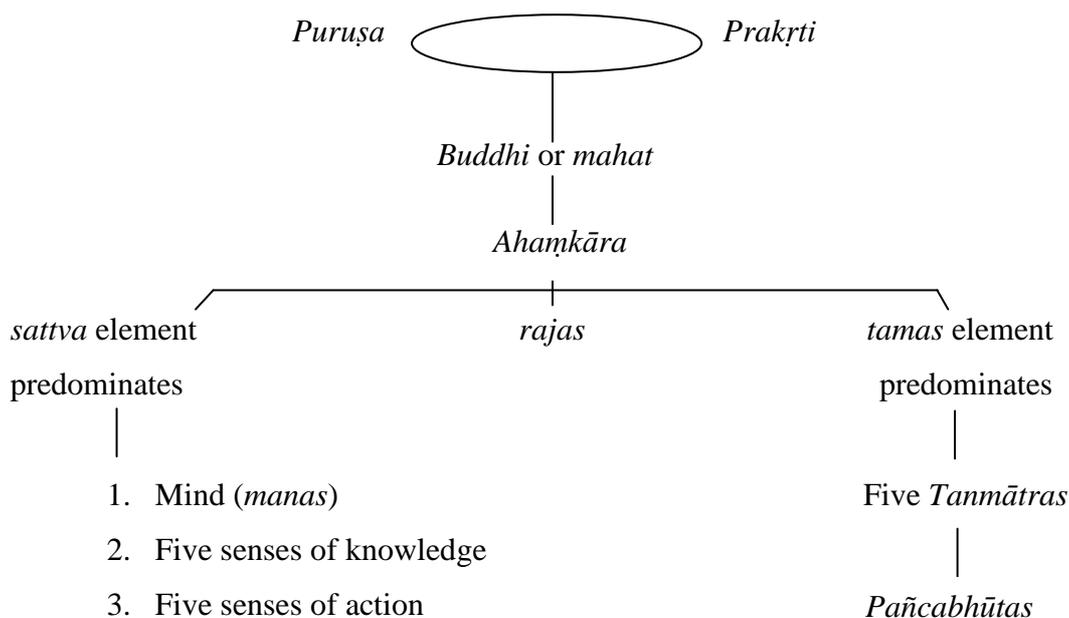
<sup>102</sup> *Ibid.*

<sup>103</sup> *Ibid.*, p. 298.

<sup>104</sup> K. P. Sinha, *Indian Theories of Creation: A Synthesis* (Delhi: Chaukhambha Orientalia, 1985), p. 12.

*manas* and the ten senses are known as *karāṇa-s* (instruments): the first three constitute what may be called *antaḥkarāṇa* (the inner organs) while the ten senses form the *bāhyakarāṇa* (the outer organs). The whole course of evolution from *prakṛti* to the gross physical elements is distinguished into two kinds, namely, the psychical (*buddhisarga* and *pratyayasarga*) and the physical (*tanmātrasarga* or *bhautikasarga*).<sup>105</sup>

**The Sāṃkhyan order of cosmic evolution can be presented as:**



#### 4.3 PARALLELS BETWEEN SĀMĀKHYA AND TEILHARDIAN THOUGHT

We now consider the parallels between a few propositions found in Teilhardian thought and in the *Sāṃkhya* school. They are:

- ☩ The inherent teleology in the process of evolution
- ☩ The mystery of the emergence of life
- ☩ The genesis of consciousness
- ☩ The role of God in the process of evolution
- ☩ The relationship between spirit and matter

Before we elucidate these propositions, it should be noted that there is a stark similarity in the starting point of both, the speculations of the *Sāṃkhya* school and Teilhard's phenomenology. Life, as we all know, is a ceaseless flow of experience. It is therefore expected that a good philosophy, which seeks to explain the significance of

<sup>105</sup> Chatterjee, p. 304.

human life in relation to the whole universe, should establish its claim to general acceptance by showing that it has formulated a theory based on a thorough analysis of experience. This is the starting point of the *Sāṃkhya* philosophy. The fundamental principles and categories were not merely dogmatically postulated; they were discovered and accepted after proper analytical study of consciousness or experience. *Puruṣa* and *prakṛti*, the *guṇas*, their conjunction and disjunction are not mythical and airy but are at the very root of the possibility of experience or knowledge.<sup>106</sup> Teilhard too saw phenomena as such, and elaborated ideas, which are testable by scientific techniques thus building his house on rock and not on sand.<sup>107</sup>

### 4.3.1 Teleology in the Evolutionary Process

In classical *Sāṃkhya*, nature is supposed to be impregnated with a sort of unconscious teleological force by virtue of which the *guṇas* are capable of providing the *puruṣas* with experiences of various sorts and of liberating them from bondage.<sup>108</sup> Īśvarakṛṣṇa says that *prakṛti* and the *puruṣa* come in contact with each other because *prakṛti* wants to be known by the *Puruṣa* (*darśanārtham*), and the *Puruṣa* wants to attain liberation (*kaivalyārtham*). All the acts of *prakṛti* are prompted by its inherent teleology. Just as non-intelligent milk flows for the nourishment of the calf, so does non-intelligent *prakṛti* function for the liberation of the *Puruṣa*.<sup>109</sup> This form of teleology is an important hypothesis on the ground of which this school seeks to explain the creation of this well-ordered universe by an unconscious *prakṛti*, in the absence of any active guidance from the *Puruṣa*.<sup>110</sup>

The history of the evolved universe is not the dance of blind atoms, nor the push and pull of mechanical forces which produce a world to no purpose. On the other hand, it serves the most fundamental ends of the moral or the spiritual life. The history of the world must be, in spite of appearances to the contrary, the progressive realization of the life of spirit. In *Sāṃkhya*, the evolution of *prakṛti* into a world of objects makes it possible for spirits to enjoy and suffer according to their merits and demerits. But the

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<sup>106</sup> Gupta, pp. 12-3.

<sup>107</sup> Delfgaauw, p. 19.

<sup>108</sup> Gupta, p. 7.

<sup>109</sup> Sinha, p. 11.

<sup>110</sup> Gupta, p. 21.

ultimate end of the evolution of *prakṛti* is the freedom (*mūkti*) of self. It is through a life of moral training in the evolved universe that the self realizes its true nature.<sup>111</sup>

The central conception of evolution from the stand point of *Sāṃkhya* lies in the expression *Samsṛṣṭi vivichate*—the gradual development of what existed in a diffused state within the primary cause. The process of evolution follows a definite law, which is almost inviolable. Dr. B. N. Seal elucidates the significance of this concept:

The process of evolution consists in the development of the differentiated within the undifferentiated, of the determinate within the indeterminate, of the coherent within the incoherent. The order of succession is [...] from relatively less differentiated, less determinate, less coherent whole to a relatively more differentiated, more determinate and more coherent whole.<sup>112</sup>

Like Teilhard's law of Complexity-Consciousness, it is now clear that according to Hindu philosophy, evolution, production, creation or emanation of the world is an integration, accumulation or aggregation of subtle into less subtle or more complex entities. Everything is a *complexification* of something simpler and subtler.

### 4.3.2 The Emergence of Life

It is admitted that dead protoplasm does not produce living protoplasm, although the molecules of both are the same in their compositions. It is the living protoplasm, which has the power of selection, assimilation, preservation, transformation and development. No physico-chemical theory has satisfactorily explained these facts. Though all organisms assimilate inorganic substances and give off inorganic products, no inorganic object has been seen to produce the phenomenon of life.

Various theories have been propounded in response to the question of the origin of life. While some attempt to explain the origin of life-processes in terms of physics and chemistry, of evolution of the living, animate or organic from the dead, inanimate and inorganic matter; others deny that life can be explained on a physico-chemical basis and assume an all-controlling, unknown, mystical, hypo-mechanical force responsible for all living processes under the name of *Vitalism*.<sup>113</sup>

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<sup>111</sup> Chatterjee, pp. 305-6.

<sup>112</sup> Qtd. in Gupta, p. 29. Original quote in B.N. Seal, *Positive Sciences of the Ancient Hindus*, p. 7.

<sup>113</sup> Balkrishna, pp. 198-9.

The *Sāṃkhya* theorists, using the analogy of the loadstone, which possesses the power of causing vibration of particles in other bodies by means of its mere proximity to them, assert that sentient effects follow from insentient causes. They hold that life is not merely external air (biochemical forces). Life is another name for the fivefold breaths which are a resultant of the various concurrent activities of the three internal instruments—the sensoric-motor, the emotional and the apperceptive—in the organisms. An individuated eternal soul is postulated as the essential background of all sentiency. Without the contact and presence of this eternal element, *prakṛti* cannot transmute itself into these life forces.<sup>114</sup>

The theory of a continuous development of a human soul from the lowest vegetable forms to the highest human beings is a fundamental notion of these speculations. It implies a slow and laborious process, involving great tracts of time. The whole animate creation is straining for assuming better, higher, nobler forms. The ultimate perfection is never at hand, but the path to truth, beauty and progress and happiness is open to all. Man can make or mar his future.<sup>115</sup>

### 4.3.3 The Emergence of Consciousness

*Mahat* or *buddhi* is the first modification of the noumenon (*prakṛti*). It could be understood as the subconscious self of an individual or the impersonal consciousness in the cosmos. At this stage each individual soul becomes vaguely conscious of oneself and the world. The Cārvākas and Buddhists regarded both mind and consciousness as an excrescence or epiphenomenon, having no real existence in themselves but only appearing as a result of a peculiar kind of material integration. However, Kapila, like Teilhard, struck a happy mean between the two views. He expresses both mind and matter to be variants of the same ultimate substance. How a soul in combination with a certain aspect of unconscious matter becomes modes of consciousness, intelligence, mind, organs, etc., may not be intelligible to us, but this is the doctrine developed by Kapila.<sup>116</sup>

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<sup>114</sup> Ibid., p. 202.

<sup>115</sup> Ibid., p. 289.

<sup>116</sup> Cf. Balkrishna, pp. 162-6.

#### 4.3.4 The Role of God in the Process of Evolution

A striking feature in the *Sāṃkhya* theory of evolution is the absence of God (*Īśvara*) as the ultimate cause of creation. Although, as Dr. K. P. Sinha points out:

The old *Sāṃkhya* found in the *Mahābhārata*, *Bhāgavata purāṇa* and *Viṣṇu purāṇa*, ‘*Paramātman*’ or ‘*Īśvara*’ is the ultimate reality, omnipresent, omnipotent, omniscient, endowed with a power to create the world and control it in all its phases. The classical *Sāṃkhya*, however, does not make any reference to *Īśvara* for the explanation of the creation process but refers only to *puruṣa* and *prakṛti* as the sources of the world.<sup>117</sup>

This is where the *Sāṃkhya* theory differs from that of the Semitic religions where God is the Creator of the universe. In Christianity, for instance, man is seen as the crown of creation and he is given the power over the entire world. Therein man becomes the master of all. On the contrary, in *Sāṃkhya*, evolution is not concerned about the external being of living beings, but rather the inner being. The emphasis is on the spiritual and psychological make-up of human beings rather than the physical.<sup>118</sup>

Teilhard does not find it necessary to bring in a special divine intervention at the creation of the human soul, although he is open to this suggestion. This attitude in no way undermines the supreme role of God. The self-evolving cosmos is a greater testimony to God’s greatness as Creator than a cosmos in which He was forever being obliged to intervene with new acts of creation. This agency directs the process and supplies evolution with the creative energy needed. Similarly the *Sāṃkhya* theory too, without involving any meta-natural power or divine interference with nature, strikes at the root of the idea that the world is divine in its progressiveness.<sup>119</sup>

#### 4.3.5 The Relationship between Spirit and Matter

The distinction between physical and mental sciences goes back to Descartes, who drew a very sharp dividing line between mind and matter. Mind was identical with thinking, and as such attributable only to spirit. Matter was identical with extension and as such peculiar to inanimate things, plants, animals and man. In man these two, mind and matter, came together. The mind was the soul, matter the body.

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<sup>117</sup> Sinha, pp. 9-10.

<sup>118</sup> Chatterjee, p. 321.

<sup>119</sup> Balkrishna, p. 157.

However, it is the idea of evolution that enables us to overcome the dualism. Man is not *material body + spiritual soul* but *psychic* or *spiritual* (self-conscious and free) *matter*, or what can be called *living matter*. For Teilhard, all material realities have some sort of consciousness. An electron is the most elementary reality and so it will have the most rudimentary type of consciousness. A molecule is more complex and so will have more advanced consciousness.<sup>120</sup> Consciousness is thus coextensive with matter. In the words of Paul Chauchard:

The within and the without are inseparable, as two aspects of one and the same reality. In man the within and the without are clearly discernible. It is true that the within aspect is not noticeable in the lower beings, but the fundamental unity, coherence and continuity in the cosmos point to its presence.<sup>121</sup>

The *Sāṃkhya* system also regards matter and spirit as ultimate realities. All existence (material and mental) and all phenomena (objective and subjective) are different modes of manifestation of the one *prakṛti*. Consciousness, egoism, mind, thought and sensual impressions, and all forms of material existences, are epiphenomena, developments of one ubiquitous unity. A disturbance in the equipoise of the noumenon of the three *guṇas*, starts all phenomena. Consciousness, mind, the whole psychical organism of man and the subtle essences of material forms proceed directly or indirectly from the one supreme source of the eternal *guṇas*.

This idea presents a universal correlation of the world and annuls the fatal gulf between the material and immaterial.<sup>122</sup> The union of the soul with matter is formulated by the sage Kapila in these words, “On those phenomena we base our conviction that even the atom is not without a rudimentary form of sensation and will, or, as it is better expressed, of feelings and inclination—that is, a universal *soul* of the simplest character.”<sup>123</sup>

In sum, to say that spirit is a product of matter is a gross misunderstanding according to Teilhard. The evolutionary perspective has renewed the manner of understanding the classic distinction between matter and spirit. Teilhard never stopped

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<sup>120</sup> Chardin, *The Phenomenon of Man*, pp. 60-1.

<sup>121</sup> Paul Chauchard, *Man and Cosmos: Scientific Phenomenology of Teilhard de Chardin* (New York: Herder and Herder, 1965), pp. 80-1.

<sup>122</sup> Balkrishna, p. 158.

<sup>123</sup> *Ibid.*, pp. 191-2.

explaining himself. Already in November 1917, he wrote, “Properly understood, consciousness must not be regarded as a simple resultant... [It is] the appearance in the world of something entirely new... [It is] a new substance.”<sup>124</sup> Consciousness arises in matter, which is more and more synthesized, but this does not signify that matter changes itself into spirit. The same being possesses a certain concrete unity of this *within* and *without*, matter and spirit. Spirit is not matter any more than the *within* of things is their *without*.

The purpose of this analysis was to highlight the parallels between the *Sāṃkhya* system and Teilhardian thought. It does reveal that Teilhard was no ordinary scientist. Like the ancient seers of this Indian school, he too was a visionary and a mystic. Though the number of supporters for this line of thinking is on the increase, others feel that there are numerous contradictions and inconsistencies in such a hypothesis. These will be highlighted in the forthcoming chapter.

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<sup>124</sup> Lubac, *Teilhard Explained*, p. 48.

## CHAPTER V

### TEILHARD: A SYNTHESIZER OR A SIGN OF CONTRADICTION?

*There is less difference than people think between research and adoration. Religion and science are the two conjugated faces or phases of one and the same act of complete knowledge.<sup>125</sup>*

It is not easy to make a cool assessment of Pierre Teilhard de Chardin. This is partly because he is a figure about whom it is difficult to be neutral. The other reason that makes assessment difficult is that, like the Jesuit poet Gerard Manley Hopkins, Teilhard published (or was permitted to publish) very little in his lifetime. This means that he did not have the benefit of his contemporaries' criticism, and was therefore bound to be a bit of a Narcissus. As in the case of Dietrich Bonhoeffer, we do not always know what he meant.<sup>126</sup> Thirdly, Teilhard touches so many aspects of thought that he is very vulnerable to the attack of the specialist. But such thinkers are badly needed in a time when people are complaining of the fragmentation of knowledge. We must often be prepared to give him credit for what he tried to do even though we may criticize the way he did it.

#### 5.1 A CLASSIFICATION OF TEILHARDIAN THOUGHT

Teilhard's approach to reality, affords an explanation of why his work is so difficult to categorize. Scientists intuit that Teilhard does not share their passion for scientific inquiry as an end in itself. However, science, for Teilhard, is indispensable for affording a view of what God is doing in his world. It teaches us by its inability to disclose reality through its analytical method, that reality must be found "in the direction in which things become complex in unity, for in that direction there must lie a supreme centre of convergence and consistence, in which everything is knit together and holds together."<sup>127</sup>

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<sup>125</sup> Chardin, *The Phenomenon of Man*, pp. 250, 284-5.

<sup>126</sup> Hanson, p.vii.

<sup>127</sup> Chardin, *Science and Christ*, p. 34.

In *Teilhard Reassessed*, Anthony Hanson qualifies Teilhardian thought as *Realist Metaphysics*, consisting of the following features:<sup>128</sup>

- i. Realist Metaphysics represents a reaction against philosophical Idealism because it takes science as its starting-point for the apprehension of reality, rather than an *a priori* philosophical belief in the primacy of the mind.
- ii. It does not regard the mind as the essential component of reality, as Idealism does, but regards the world in time and space as possessing its own reality which is in no way impaired by any lack of cognition of it.
- iii. Realist Metaphysics tends towards the view that matter is not hostile to spirit, but rather is inter-penetrated through and through by spirit.

Teilhard's work fulfills these canons. As he said, his point of departure is the "phenomenal point of view to which I systematically confine myself."<sup>129</sup> And in another place, "Without doubt there is something through which material and spiritual energy hold together and are complementary...the two energies of mind and matter...are constantly associated and in some way pass into each other."<sup>130</sup>

## 5.2 TEILHARD: THE SYNTHESIZER

The entire work of Teilhard de Chardin can be regarded as one vast proof—renewed in a scientific perspective—for the immortality of the human soul and the existence of God. Teilhard may not have fully succeeded in his effort of systemization; but this was his constant project, his effective orientation—and such is the criterion to which he himself wished his thought ultimately to be submitted.<sup>131</sup>

In his opinion, he did not conceive of illusory *human hopes* without relation to *the Christian hope*: his passionate interest in man's work on this earth—far from diverting his thought from the hereafter—drew all its vigor from the latter and in fact was completely ordered by it.<sup>132</sup> Teilhard seeks primarily to develop a spirit and stimulate an attitude. In his loyalty to positive scientific method, he remains in the order of the "phenomenon" and eschews a deductive metaphysics. As Emile Rideau points out:

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<sup>128</sup> Hanson, pp. 121-4.

<sup>129</sup> Chardin, *The Phenomenon of Man*, p.308.

<sup>130</sup> *Ibid.*, p. 63.

<sup>131</sup> Lubac, *Teilhard Explained*, pp. 36-41.

<sup>132</sup> Teilhard de Chardin, *Le Milieu Divin*, trans. Bernard Wall (London: Collins, 1960), p. 69.

Christianity itself, is to him in the first place and evidential datum, a fact. At the same time, and with full justification, he took as his basis the value of reason and the analogical capabilities of language and so endeavoured throughout his life, to organize his thought logically and present it as a coherent whole: thus, he arrived at the structure that informs a philosophy and a theology.<sup>133</sup>

### **5.2.1 Faith and Science in Teilhardian Thought<sup>134</sup>**

The problem for Christian philosophers today is how to accommodate the Christian apprehension of a transcendent God into a universe, which, if they are to accept the findings of physics only, seems to be a completely self-integrated, autonomous, dynamic process. Teilhard stands among the few thinkers who sought to integrate pure scientific research with a religious vocation. He made it his personal mission to reconstruct the most basic Christian doctrines from the perspectives of science and, at the same time, to reconstruct science from the perspectives of faith.

His whole life was as an attempt (posthumously successful) to persuade the Church to accept the conclusions of science in the sphere of biology. Teilhard was in person a representative of Christian openness. It is not only in his writings that this openness appears. Teilhard is known to have spent long periods in the company of fellow scientists, most of them non-Christians, and he won their respect and admiration. If ever there was a man who symbolized the Christian presence among scientists, it was he. This is indeed one of Teilhard's greatest titles to honour, "He [Teilhard] was not willing to keep his theology and his paleontology in separate compartments; he was determined to be both a scientist and a theologian."<sup>135</sup>

The first duty of a Christian philosopher is to see that the deliverance of science or of autonomous reason does not end by denying Christian experience. Teilhard's faith in God, and therefore in the universe, convinces him that faith and reason cannot ultimately conflict. Teilhard's work was a noble effort to vindicate this faith. If evolution itself points toward a form of conscious life, which has personality, perhaps God is the goal toward which this universe is moving after all. This explains the deep affinity which Teilhard felt to science and religion.

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<sup>133</sup> Rideau, pp. 11-2.

<sup>134</sup> Hanson, pp. 159 - 64.

<sup>135</sup> Ibid., p. 164.

But can science and religion be successfully remarried? Can a reunion of these old lovers infuse new vitality to the whole of the western culture, as Teilhard passionately asserted it would. Or, does Teilhard accomplish the reconciliation of science and religion at the expense of both partners to the marriage? Does he fatally compromise both sides in forcing an alliance, which should never have been attempted in the first place? We now study why Teilhard also became a sign of contradiction, both in the religious and in the secular world.

### 5.3 TEILHARD: A SIGN OF CONTRADICTION

Teilhard's philosophy is *unitary* and it tries to embrace the totality of being in one logical coherent structure. Problems of extreme difficulty arise from this passion for the rational that sometimes tends to devalue the concrete, individual existence of beings and at the same time tends to minimize the discontinuities between orders of being.<sup>136</sup>

#### 5.3.1 Reasons for the Failure of Teilhard's Project

The attitude Teilhard adopted towards some of the most fundamental questions, arouses violent opposition, bitter controversy, and contradictory interpretations. A few reasons for the failure of his project are highlighted below.<sup>137</sup>

- i. Teilhard's method is found to be riddled with inconsistencies and elementary logical errors. Though he is acclaimed as a great scientist who has reconciled science with the Christian faith, Nobel prize winner, Sir Peter Brian Medawar, disagrees: "Teilhard's works in general lack scientific structure. His competence in his field is modest. He neither knows what a logical argument is nor what a scientific proof is, and he does not respect the norms required of a scientific scholarship."<sup>138</sup>
- ii. Teilhard's terminology is often obscure, in which the meaning of the terms shift disconcertingly. As Bernard Towers would say: "At times his passion for neologisms, and the dexterity with which he mingles scientific, poetical and mystical insights, become somewhat confusing."<sup>139</sup>

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<sup>136</sup> Rideau, p. 23.

<sup>137</sup> Hanson, p. 2.

<sup>138</sup> Dietrich Hilderbrand, *Teilhard de Chardin: A False Prophet* (Chicago: Franciscan Press, n.d.), p. 11.

<sup>139</sup> Towers, p. 11.

iii. Teilhard visionary metaphysics rests on an epistemology of the utmost indefiniteness. According to Dietrich von Hilderbrand, in Teilhard's writings, there is a gliding from one notion into another. He systematically blurs all the decisive differences between things. The difference between Christian love of neighbour (which is essentially linked to an individual person) and an infatuation for humanity (in which the individual man is but a single unit of the species man) is hazy. Teilhard also ignores the difference between eternity and the earthly future of humanity, both of which he fuses in the totalization of the Christ-Omega.<sup>140</sup>

Teilhard's obscurity is to be explained, however, by his own style of writing and his tendency to wander into the realm of pure speculation. His fertile imagination sometimes led him into a fantasy world foreign to scientists and theologians alike. When one cuts through his sometimes lurid prose, one encounters a series of highly imaginative and suggestive proposals for the reunion of research and religion.

### 5.3.2 Opposition from Church Authorities

It was at the height of his career in paleontology while studying fossils in northern China in 1927 that Teilhard wrote what he called "a little book on piety," designed to convey both the sincerity and the orthodoxy of his faith to his superiors in Rome. In this book, Teilhard speaks of *The Divine Milieu* and by its very title suggests his theme: the whole material world as the setting for a profound, mystical vision of God. It is in the world itself, as seen through the eyes of science, that the workings of God are most apparent. Teilhard's writing is graphic and unrestrained:

All around us, to right and left, in front and behind, above and below, we have only to go a little beyond the frontier of sensible appearances in order to see the divine welling up and showing through [...]. By means of all created things, without exception, the divine assails us, penetrates us and moulds us. We imagined it as distant and inaccessible, whereas in fact we live steeped in its burning layers [...]. The world, this palpable world, which we were wont to treat with the boredom and disrespect, with which we habitually regard places with no sacred association for us, is in truth a holy place, and we did not know it. *Venite, adoremus.*<sup>141</sup>

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<sup>140</sup> Hilderbrand, p. 26.

<sup>141</sup> Chardin, *Le Milieu Divin*, p. 112.

Needless to say, writing like this did not reassure the religious authorities in Rome, for Teilhard affirmed the material world as a source of mystical illumination. Though Teilhard did not directly criticize any specific doctrines of the Church, this work constitutes an assault upon the skeletal supports of traditional theology. Early on, he describes his book in two sentences that were intended to convey the modesty of his position but in reality contained a theological time bomb:

This little book does no more than recapitulate the eternal lesson of the Church in the words of a man who, because he believes himself to feel deeply in tune with his own times, has sought to teach how to see God everywhere, to see him in all that is most hidden, most solid, and most ultimate in the world. These pages put forward no more than a practical attitude—or, more exactly perhaps, a way of teaching how to see.<sup>142</sup>

Teilhard says that he intends no more than to “recapitulate the eternal lessons of the Church,” but he goes on to assert that he is actually teaching the Church how *to see*! As a scientist and an individual thinker, he is suggesting that the primary source of religious truth is to be found in the material world rather than in the *magisterium* of the Church. In a real sense, it shall be science which shows theology how to see.<sup>143</sup> As Karl Marx turned the world of philosophy upside down by revealing the foundations in society for every human theory, Teilhard tried to accomplish the even more difficult task of turning theology downside up. He tried to demonstrate that the material world, the world of rocks and trees, stars and planets, plants and animals, rather than being the neutral subject of scientific investigation, was in fact the soil from which would spring a new vision of the Holy. The very subject matter of pure science was nothing less than a mirror in which one could see reflected the face of God. Hence Teilhard did not succeed in calming the anxious theologians at the Vatican, and they were rightly worried. He had raised the material world to a level of importance it had seldom held for theologians, Catholic or Protestant.

One must bear in mind that Teilhard was developing his ideas at a time, when, in reaction against “modernism” and in terror of Communistic humanism, the Roman Catholic Church was anything but inclined to enter into an alliance

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<sup>142</sup> Ibid, p. 46.

<sup>143</sup> Charles P. Henderson, “Pierre Teilhard de Chardin: Toward a Science Charged with Faith,” *God and Science*. <http://www.crosscurrents.org/chardin.htm>.

with science or to extol the greatness of human achievements.

### 5.3.3 Misunderstandings with regard to Technology

It is clear that Teilhard's first love is technological progress. The creation of God has to be completed by man. But for Hilderbrand, the fact that Teilhard sees a higher stage of evolution in today's industrialized world reveals the lack of a real sense of the beauty of nature. Even the most enthusiastic *progressive* cannot deny that industrialization consistently ruins the beauty of nature. Moreover, industrialization certainly cannot be considered a univocal progress, either from the point of view of increasing human happiness or of fostering higher culture and a real humanism. Industrialization implies the danger of a progressive dehumanization. The replacing of the *organic* in human life by the *artificial*—from artificial insemination to social engineering—is symptomatic of this dehumanization. Yet Teilhard heedlessly jumps from an enthusiasm for nature to elation over the progress of technology and industrialization.<sup>144</sup> Hilderbrand strongly expresses his view in the words:

Teilhard's own approach is betrayed by his attitude toward the atom-bombing of Hiroshima. The alleged progress of humanity which he sees in the invention of nuclear weapons matters more to him than the destruction of innumerable lives and the most terrible suffering inflicted on individual persons.<sup>145</sup>

## 5.4 IMPLICATIONS OF TEILHARDIAN THOUGHT

After this cursory glance over these aspects of Teilhardian thought, it is worth noting the ramifications that such a thinking can have in various spheres of world today.

**5.4.1 Dialogue:** Teilhard's own range of interests and professional competence included some aspects of each *layer*, from inorganic to spiritual and mystic. It is important, in reading him, to be sure that one is on the same *wavelength*, and to remember that a discussion, say, of some point about the noosphere will be conducted in terms appropriate to that level. Such a respect for method makes possible the vital debate between Christian and Agnostic or between Christian and Marxist, to their mutual benefit. But it must always be borne in mind that

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<sup>144</sup> Hilderbrand, pp. 34-5.

<sup>145</sup> *Ibid.*, p. 15.

within and yet beyond the noosphere lies, for Teilhard, Christogenesis, which is its goal and fulfillment, and which makes all things meaningful.<sup>146</sup>

**5.4.2 Sociological and Political Applications:**<sup>147</sup> The sociological and political applications of Teilhardian thought are very far-reaching. The struggles of races, nations, power-blocs, will one day come to an end as surely as did those of individual clans and city-states. The possibility of local outbreaks of aggression will always remain, but by and large the world as a whole will become peaceful. The fundamental oneness of the family of humans, as shown by the theory of his evolution, is a fact of greatest importance. The era of pure individualism is over, and henceforth individual talents will be developed for the benefit of the community. It is in free and loving service to his fellowmen that the individual finds himself, finds the world and finds God.

**5.4.3 Moral and Pragmatic Considerations:** If the reader still has doubts that it is an unjustified extrapolation from the scientific facts to suggest that the entire universe, and with it man, are moving towards perfection, Teilhard appeals to moral and pragmatic considerations. Men must believe that mankind is perfectible, since otherwise human effort will collapse. Teilhard writes:

Positive and critical minds can go on saying as much as they like that the new generation [...] no longer believes in a future and in a perfecting of the world. Has it even occurred to those who write and repeat these things that, if they were right, all spiritual movement on earth would be virtually brought to a stop? The whole of evolution will come to a halt—because we are evolution.<sup>148</sup>

**5.4.4 Bridge between the Sacred and Profane:** A mistake of Christianity is its attempt to drive a wedge between the sacred and profane. “There is a sense in which He [God],” writes Teilhard, “is at the tip of my pen, my spade, my brush, my needle, as well as of my heart and of my thought.” Teilhard asserts that “nothing here below is profane for those who know how to see.” He looks forward to a time when “there will be little to separate life in the cloister from the

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<sup>146</sup> Ibid., p. 38.

<sup>147</sup> Ibid., p. 38.

<sup>148</sup> Chardin, *The Phenomenon of Man*, pp. 232-3.

life of the world.” Only then, he says, will mankind “have attained the intended plenitude of its humanity.”<sup>149</sup>

- 5.4.5 Vision of Matter:** To be sure, it is always impressive when a man seems to have achieved a deep vision of being, and, instead of taking it for granted, gives it a full and ardent response. So with Teilhard. He discovered in matter many aspects, which had generally been overlooked. For example, the mysterious structure and the multiplicity of matter, which natural science is increasingly unfolding, call for genuine wonderment about his reality and for respect for this creation of God.<sup>150</sup>
- 5.4.6 Noosphere:** For Teilhard the noosphere is the world’s way of knowing about the world. The impetus to research, exploration, investigation, becomes irresistible. But for Teilhard there is yet another step. Research is adoration.<sup>151</sup> The evolutionary process is fundamentally religious in nature, because it manifests not only increasing consciousness but also increasing personalization. The *spiritual face* of the world would never have shown itself, could never have developed, if it had not been for the indwelling spirit, operative throughout time both as *alpha* (the source), and *omega* (the end).<sup>152</sup>
- 5.4.7 A Final Overthrow of Manichean Philosophy:** Before the *pleroma* it is necessary that every *sphere* of created matter shall have been fully exploited; and with the advent of man, fully re-created through scientific exploration. The strength of the appeal to understand each aspect of the created universe is far greater than any utilitarian philosophy can give. All such work is oriented, whether or not the fact is recognized, toward the Omega point.<sup>153</sup>
- 5.4.8 The Future of Humanity:** Teilhard asserts that nature is moving, erratically and haltingly perhaps, but nonetheless moving, towards higher forms of consciousness. This movement is most apparent in the evolution of the human species. For Teilhard the most sublime product of evolution is the human person, the individual uniquely aware of itself as a person, yet also aware of its interdependence with the whole. It is humanity in particular which has a clear

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<sup>149</sup> Chardin, *Le Milieu Divin*, pp. 64-7.

<sup>150</sup> Hilderbrand, p. 35.

<sup>151</sup> Chardin, *Le Milieu Divin*, p. 112.

<sup>152</sup> Towers, p. 36.

<sup>153</sup> *Ibid.*, p. 37.

concept of nature and nature's *inner* workings. Teilhard quotes Julian Huxley approvingly, "Humanity is nothing else than evolution become conscious of itself."<sup>154</sup>

Teilhard does not see the value of persons in purely an individualistic kind of way. For him, love means that persons are drawn together in the deepest way—that is, *centre to centre*. He expounds:

In our lives this centric condition is seldom achieved [...]. It may be that in our human inter-relationships we come into contact with our fellows only 'tangentially,' through our interests, through our functions, or for our business dealings [...] without loving—without even suspecting that it is possible for us to love—the thing or person with which we are concerned. Thus our interior life remains fragmented and pluralized.<sup>155</sup>

Faith in God does not distract man from his task on earth but endorses it. The material and biological reality is subsumed within the divine and so is not abandoned but assigned to man as his domain. Teilhard's thinking seeks to rehabilitate the mundane; and through it he addresses himself as much to non-Christians as to Christians.

Teilhard's aims coincide with the legitimate expectations of his readers. What can the nonbeliever expect from *The Phenomena of Man*? He can rightly expect *to see*: to see the *huge past* and the *fantastic future* joined in one meaningful vision; to see the world moving in a directed way, and so to grasp the abiding meaning of the cosmos; to overcome, therefore, the experience of absurdity bred by partial and disconnected viewpoints; to hope, cosmically, from the ultimate success of terrestrial evolution, and personally for the permanent value of himself and his achievements; to love more cosmically and confidently and so to overcome fear and anxiety.

What can the Christian reader expect? He can expect an increase of both his loves—of this world and of Christ—and their intimate union. He can expect to see the world as part and parcel of the *evolving Christ*, to feel the *sense of the earth*, whereby the cosmogenesis is experienced as good. He can expect growth in the Pauline phrase, "Christ loved in the world and the world loved in Christ."<sup>156</sup>

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<sup>154</sup> *The Phenomenon of Man*, p. 221.

<sup>155</sup> *Science and Christ*, pp. 169-70..

<sup>156</sup> Kenney, p. 29.

## CONCLUSION

*The Phenomenon of Man* concludes with a very brief and condensed summary<sup>157</sup> of the topic dealt with in this paper, which I call the *sūtra* of Teilhard's thought:

To make room for thought in the world, I have needed to 'interiorise' matter: to imagine an energetics of the mind; to conceive a noogenesis arising upstream against the flow of entropy; to provide evolution with a direction, a line of advance and critical points: and finally to make all things double back upon *someone*.<sup>158</sup>

- i. ***To make room for thought:*** The unifying, synthesising mind of Teilhard is immediately evident. Thought possesses its primacy among the things of the cosmos, but it must be coherently joined with all the parts and processes of the universe. This is done initially by *interiorising matter*—by making consciousness the property of all matter or by giving a *within* as well as a *without* to every material unit.
- ii. ***To construct an energetics of the spirit:*** Teilhard saw the necessity of finding a law to make the operations and dynamics of the human spirit meaningful. The law had to be applicable to all manifestations of energy (physical, psychical or mystical). This he accomplishes by means of the law of complexity-consciousness. Whenever energy is expended in increasing complexity, there is a corresponding increase in consciousness, and that the direction of evolution has been, is and will be towards ever-higher complexity and its correspondingly higher consciousness.
- iii. ***To conceive an increasing noogenesis contrary to the flow of entropy:*** The picture of evolution is not painted black by the prospect of increasing entropy—the steady decline of energy available for evolution's activity, ending in the dismal *heat death* of the cosmos. What is far more significant is the rise of psychic powers, *increasing noogenesis*, in accord with the law of complexity-consciousness.
- iv. ***To provide evolution with the meaning, a direction and some critical points:*** The direction of evolution is a function of the law of complexity-consciousness. In this ascent, phenomena dictate the necessity of certain *critical points*. These are points where, though there is continuity in the process, the new types and states of consciousness, which arise, are qualitatively different from the prior types.

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<sup>157</sup> Kenney, pp. 178-80.

<sup>158</sup> Chardin, *The Phenomenon of Man*, p. 290.

- v. *To make all things finally double back upon 'someone'*: once consciousness is human and therefore spiritual and personal, Teilhard develops the necessity of humanity's convergence upon a supremely personal and personalising centre of evolution, Omega, for the further evolution and final consummation of humankind.

## 6.1 DOES EVOLUTION CONTINUE TODAY?

One may admit easily enough that evolution has occurred. The burning question is: "Is there evolution today?" Evolution has had the significance of bringing about life and human reflection. Is anything significant being brought into existence today?

Evolution has always been the process of *fanning out* or of *ramification*. Can we say that in the current human stage of evolution, there is only dispersion into diverging ethno-cultural units and the culmination of evolution is to be sought in separate individualities, each within the enclosed sphere of its sensibilities and knowledge? But if we wish to take notice of the socialisation going on, must we not say that this is really an epiphenomenon? That is, the coming together of humanity through communication and transportation is not merely an accidental but an incidental phenomenon.<sup>159</sup> Teilhard is positive that evolution continues even today:

First the vitalisation of matter, associated with the grouping of molecules; then the hominization of Life, associated with a super-grouping of cells; and finally the planetization of Mankind, associated with a closed grouping of peoples: Mankind, born on this planet and spread over its entire surface, coming gradually to form around its earthly matrix a single, major organic unity.<sup>160</sup>

## 6.2 WHO IS THE MAN, 'TEILHARD'?

Teilhard is called a poet, scientist, prophet, theologian and philosopher. Before deciding which of these apply best, we should briefly dismiss two labels that have been used of him, poet and scientist. The category *poet* we need not take seriously; those who use it of him usually do so in order to disparage him. At any rate he would not have claimed that in either *The Phenomenon of Man* or *The Divine Milieu* he was trying to write poetry.

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<sup>159</sup> Kenney, p. 67.

<sup>160</sup> *Ibid.*, pp. 119-20.

*Scientist* has a more serious claim for consideration. But it involves serious difficulties. In one sense he was an eminent scientist, a distinguished palaeontologist in his own right. But those who claim he is a scientist usually mean more than this. They mean that his speculations about the course and future of evolution must be taken as a contribution to science, to biology perhaps. The great majority of scientists who have considered this claim resent and deny it. We cannot therefore regard the category as entirely appropriate for the Teilhard of *The Phenomenon of Man*.

Was Teilhard a *philosopher*? Not in the strict sense. Teilhard did not pay attention to the technical side of philosophy. For instance, he has nothing to say about epistemology. He could be considered a *process philosopher* or he could claim a place under the head of philosophy of religion, in the sense that his whole life work was aimed at providing an up-to-date natural theology for Christians. So, if philosophers of religion are genuine philosophers Teilhard was one undoubtedly.

I would prefer to call him a *theologian*. This is because, in my view, his doctrine of God is of more importance in his system than anything else. His doctrine of the cosmic Christ entitles him to our respect, for few theologians in the past have ventured into this realm, and he deserves the credit due to a pioneer.

But in the final analysis, it is in the category of *prophet* in which Teilhard shines most brightly. It is as a prophet that he points towards the solution of the problem of how to reconcile the *seeking church* under the guidance of a *teaching church*, how to set Christian theologians on a course which allows for both openness and fundamental Christian belief. Teilhard stood for a christocentric theology, rooted in Catholic practice.

As long as we hold on to this faith and this practice, as Teilhard did, we shall feel completely free to explore the wide areas of knowledge and belief with which the world confronts us today. We shall be eager to examine the metaphysical and theological implications of new deliverances in science, whether in physics, biology or any other branch, a work which Teilhard so brilliantly attempted. Above all, we shall look forward to the future with optimism as Teilhard did, confident that our Christian faith is not a fortress to defend, but a light to illuminate whatever human history may have in store for us.

Teilhard de Chardin is not a philosopher in an ivory tower; he is a man who speaks to other men. He does not suffer from any inferiority complex with respect to his convictions. Nothing ever caused him to be a poor believer. His dialogue was always what every serious dialogue on the intellectual plane must at least ultimately be—a dialogue of confrontation. It is a healthy example for us today.<sup>161</sup> Henri Lubac would say, “It is clear that Teilhard is no sterile repeater of orthodox statements but a seeker after truth no matter where found—and as such belongs to the spiritual lineage of St. Thomas Aquinas.”<sup>162</sup>

Teilhard sought to establish between Christianity and humans, between *sacred* history and *natural* history, a dialectical balance that would conform as closely as possible both with tradition and with the new demands of the modern spirit. Whatever may be said about any shortcomings in his thought, are outweighed by the great value of his positive contribution. Teilhard clears the way for a restatement of the philosophy of science and religion. He forces us to revive our mental categories and to invent a new language that will correspond to the present change in consciousness. He lays down the irrevocable conditions that the expression of the truth must satisfy if it is to be acceptable. In virtue of this Teilhard stands on a level with the greatest thinkers in history.

Teilhard was always confident that his ideas were valid and would in time be accepted by all, yet at the end of his major work of synthesis he recognizes, with a characteristically true humility, that:

In this arrangement of values I may have gone astray at many points. It is up to others to try to do better. If I do have a mission to accomplish, the degree of my success in fulfilling that mission will only be able to be judged in terms of the extent to which I am surpassed. In all my work I am conscious of being no more than a sort of sound-box, amplifying what people around me are thinking. Take from me what suits you and build your own structure.”<sup>163</sup>




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<sup>161</sup> Lubac, *Teilhard Explained*, p. 74.

<sup>162</sup> *Ibid.*, p. 9.

<sup>163</sup> Chardin, *The Phenomenon of Man*, p. 290.

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