



4-1-2012

Fire and Force: Civilization as Noosphere in the Works of Teilhard de Chardin

Anthony M. Stevens-Arroyo
stevensa@ptd.net

Follow this and additional works at: <https://scholarsarchive.byu.edu/ccr>

Recommended Citation

Stevens-Arroyo, Anthony M. (2012) "Fire and Force: Civilization as Noosphere in the Works of Teilhard de Chardin," *Comparative Civilizations Review*: Vol. 66 : No. 66 , Article 7.

Available at: <https://scholarsarchive.byu.edu/ccr/vol66/iss66/7>

This Article is brought to you for free and open access by the All Journals at BYU ScholarsArchive. It has been accepted for inclusion in *Comparative Civilizations Review* by an authorized editor of BYU ScholarsArchive. For more information, please contact scholarsarchive@byu.edu, ellen_amatangelo@byu.edu.

Fire and Force: Civilization as Noosphere in the Works of Teilhard de Chardin

Anthony M. Stevens-Arroyo
stevensa@ptd.net

*Someday, after mastering the winds, the waves,
the tides and gravity, we shall harness for God
the energies of love, and then, for a second time in the
history of the world, man will have discovered fire.*

-Pierre Teilhard de Chardin

The French Jesuit, Pierre Teilhard de Chardin, was a priest trained as a paleontologist. He became a living proof of the adage that it is luck to be “in the right place at the right time.” In his career, he was witness to the unraveling of the Piltdown Man hoax in 1912 when he was still a student in England and as a mature scientist worked in the unearthing of the Peking Man in 1921, a major event in paleontology that revolutionized much of the early twentieth century thinking about evolution. Silenced by the Vatican, which was still wrestling with theological implications of evolution, de Chardin turned to writing more spiritual reflections on the meaning of evolution to the human experience.

In that context, he addressed the issue of civilization, adopting a strikingly innovative perspective. Who else, after all, has written about civilizational process as driven by the “fire and force” of love? This emotional, even mystical, approach to the study of civilizations, however, is not the only contribution of Teilhard to the field of civilizational studies.

De Chardin’s¹ thought was highly influenced by his reading of the French Jewish philosopher, Henri Bergson, (1859-1941) winner of the 1927 Nobel Prize in Literature for his *L'Évolution Créatrice*. Published in 1907, Bergson’s work argued against Herbert Spencer’s rationalist application of Darwin’s theory to human civilization. Bergson’s objections were important because they refuted a reductionist trend of those times to impose biological determinism upon human behavior. Although Spencer’s intentions may be debated, the influence of British Utilitarianism in his writings allowed the emergence of the raw and reactionary political theory of “Social Darwinism.”

By that measure, society was shaped by “survival of the fittest,” a phrase Spencer coined to interpret Darwin’s theory. Bergson rejected the notion that human advance derived solely from social power acting in self-interest and advocated instead a greater respect for the development of virtuous altruism in evolution. Whether in animal

instincts towards pack behavior or the human creation of tribal loyalties, Bergson viewed Darwinism as proof that “the fittest” were not necessarily the biggest and the strongest but rather the most adaptive and cooperative among the species. To separate his approach from Spencer’s emphasis on physical power, Bergson stated that evolution was a spiritual force contained within matter, implicitly repudiating Aristotelianism in which spirit and matter are counterpoised as quasi-dualistic forces. One can see in the writings of de Chardin a reflection of Bergson’s humanizing efforts upon Spencer’s ambitious undertaking.

It would be a grand mistake, however, to equate Teilhard’s theories of the evolution of civilization to mere repetition of either Bergson or Spencer. De Chardin’s approach to the human experience is significantly different from that of both predecessors for its scientific understanding of evolution, its emphasis upon futurity, and its Christian mysticism. His theories demand familiarity with paleontology, an education in Classical Greek philosophy and patience with countless neologisms. Those qualities, not incidentally, also stamped his work as so idiosyncratic as to avoid falling within any one alone of the academic disciplines of biology, theology or history.

In our own discipline of Civilizational Studies, one can link individual scholars of the ISCS² to de Chardin, but he is seldom cited in the body of work since the 1970s. This paper will offer an overview of crucial concepts in Teilhard’s thought that bear on civilizational studies. At issue is whether de Chardin’s notion that evolution is guided by the fire and force of love can be applied to the institutions and innovations that characterize civilizations.

I. Orthogenesis and the Evolution of Consciousness

Teilhard disputed theories that made completely random all physical adaptations in the evolution of species. He proposed instead a theory of orthogenesis,³ which views evolution as following a direction towards certain stabilizing configurations. There may be abortive starts, dead-ends and cataclysmic reversals in the process, but nonetheless coherence comes from forces that predictably control and govern such comings and goings among species development. Today, his ideas might best fit under the heading of “convergent evolution” as described in the writings of Richard Dawkins⁴ and Stephen J. Gould.⁵ These scholars propose evolution as the unwinding of diverse and accidental forces that assume a pattern of fitful development, but which nonetheless eliminates redundant and unadapted life forms.⁶

Teilhard’s orthogenesis ought not to be equated with “Intelligent Design,” a theory recently elaborated to argue that evolutionary change proves the existence of God. Despite his unabashed Christian mysticism, de Chardin avoids theological interpretation of physical forces. Unlike Intelligent Design, Teilhard places the “intelligence” of the universe within humanity as a basically human attribute, not outside of it as something imposed by a deity. De Chardin defers from asking for the ‘who’ or ‘what’ that created

the architecture because, he says, this is not a physical question but a metaphysical one and he wishes to limit his analysis to the physical realm.

Teilhard identifies energy contained within matter as spiritual substance, so that everything has a “within” and a “without.” This is a highly important notion, traceable to Bergson. In de Chardin’s most scientific work, *The Phenomenon of Man*, written by 1940 but published only posthumously because of Church censures during his lifetime, he cites the geological evidence for the transformation of gases, cellular microbes, and plant life into mineral forms.⁷ Although they have been created by crystallization, these minerals should be examined “biologically,” he says, because they began as organic forms. Eventually, says de Chardin, what was organic energy in a primordial world suffered through eons of existence to emerge in mineral form as coal or oil.

After tens of millions of years of evolution, the original energy that was trapped inside of minerals is now being transformed back to energy by human activity. He describes this as a “doubling back” of intelligence because human thought discovers both how minerals were formed and also how the same principles can tap that energy for current use. Thus, when human technology turns minerals into energy for purposes of sustaining life, or extending travel, or producing life-rewarding products, matter becomes spiritual, that is, its existence acquires intelligent purpose that exploits the chemical processes that formed the substances.

In his celebrated “Hymn to Matter,” Teilhard wrote:

I acclaim you [matter] as the universal power which brings together and unites, through which the multitudinous monads are bound together and in which they all converge on the way of the spirit.⁸

A key notion in de Chardin’s thought is the continuity between complexified matter⁹ --- called “controlled additivity” in another place¹⁰ -- and the spiritual characteristics of energy and consciousness. Molecules gain consciousness in evolution. This occurs because of “a continuous accumulation of properties” by organic life in a sort of “snowball” effect that results in thought. As he describes in detail, the nervous system and brain found in simpler forms of life gradually acquire complexity into a human brain. Not content to view this evolution in merely physical terms, Teilhard claims that structural changes in organisms as simple as earthworms were guided by a purposeful adaptation.

The underlying principles of evolution in those simple organisms eventually produce human brain ganglia. Thus, argues de Chardin, the purpose of evolution present at the beginning of change in matter was guided towards the emergence of human consciousness, a spiritualized result. He may be understood to invoke the principle that “form follows function.” This, I believe, is a better formulation of how he interprets the teleology behind the interlocked forces of evolution.

In defending his theory from the empirical measure that physical reality does not itself exhibit the spiritual energy of thought, de Chardin insists it is unscientific to conceive of the brain without locating it within functions that improve the survival of the human species. Thus, *Homo sapiens* was not an “accident” of random selection, but the culmination of an inexorable complexification of matter that achieved its fuller spiritual dimension with the human brain.

The being who is the object of his own reflection, in consequence, of that very doubling back upon himself, becomes in a flash able to raise himself to a new sphere. ...life, being an ascent of consciousness could not continue to advance indefinitely along its line without transforming itself in depth.¹¹

The human species itself emerged from primordial substances and through plants and animals, said de Chardin, driven by a geo-genetic dynamic wherein matter transformed itself into consciousness thus becoming spiritual, i.e., intelligent life. Yet at the same time, intelligence is linked to everything else in the planet, much as when human beings eat food produced by a food chain. He uses the example of how the top rungs of a ladder depend upon the lower ones and suggests the process is like the leaves at the top of a tree which are dependent on the whole system of roots, trunk and branches.¹² He insists that matter has a spiritual dimension in the energy that undergoes “the metamorphoses of living creatures.”¹³ He writes:

... natural history no longer appears as an interlocking succession of structural types replacing one another, but as an ascent of inner sap spreading out in a forest of consolidated instinct... Right at its base, the living world is constituted by consciousness clothed in flesh and bone...¹⁴

My suggestion here is that Teilhard applies these inexorable processes of complexification and controlled additivity--- not just to the physical evolution of things, but also to the social evolution of human institutions. While *The Phenomenon of Man*, his book on evolution, explains these principles against the backdrop of paleontology, his *Divine Milieu* applies the same principles to civilization. In other words, when a civilization adds tools, writing, knowledge of time and tides, understanding of agricultural cycles and the science of engineering to its accumulated knowledge, it has registered itself as a higher rung in the intellectual evolution of the human species, continuing on another level the same process that produced the physical characteristics of humanity. This is how Teilhard links the process that produced the human species from less evolved matter in nature to the historical emergence of civilizations. Much as humanity evolved from different hominoid species that give way to more specialized forms, civilizations are species of human organization that are constantly evolving. This, I believe, is the essential function of what de Chardin wrote about as the “Noosphere.”

II. The Noosphere

The term “Noosphere” is a Teilhardian neologism, created from the classical Greek words nous = “mind” + sphaira = “sphere”. De Chardin defines evolution as the “gaining of the psychic zones of the world”¹⁵ but this idea is not limited to the prehistoric emergence of Homo sapiens after millennia of physical change in hominoid species. The physical emergence, says Teilhard, is only one part of evolution. Humanity has continued evolution through the creation of civilizations that extend “the psychic zones of the world” to more and more people. That same process extends not only the outreach of information to more people; it also exponentially increases the content of human knowledge that is transmitted. It is natural to the future completion of our species’ nature, as it was in bringing us to the present moment.

The noosphere is the reservoir of human knowledge. In Teilhard’s theory based on paleontology, the noosphere functioned for humans as an acquired species’ possession much as instinct functioned for animals as an inherited possession. The noosphere was as intrinsic to the evolutionary scheme for psychic development as had been anatomical changes for physical development. In one place, Teilhard considers the emergence of consciousness, i.e. of intelligence, as equal in importance to the emergence of solid matter from “the condensation of the terrestrial chemism or the advent of life itself.”¹⁶

As Teilhard put it:

The time has come to realize that an interpretation of the universe -- even a positivist one -- remains unsatisfying unless it covers the interior as well as the exterior of things; mind as well as matter. The true physics is that which will, one day, achieve the inclusion of man in his wholeness in a coherent picture of the world.¹⁷

As the noosphere expanded, theorized de Chardin, it would unify human awareness. After all scientific knowledge is factual and does not suffer distortion by individual interpretations, thus the expansion of the body of scientific truth would bring humankind to agree on a constantly growing data base. This common possession of knowledge was enrichment of the entire species and not just of individuals.

...there is one phenomenon which, in the eyes of posterity, may well overshadow everything that has been discovered in radiation and electricity: and that is the permanent entry into operation, in our day, of inter-human affinities – the movement, irresistible and ever increasing in speed, which we can see for ourselves, welding peoples and individuals one to another, for all their recalcitrance, in a more sublime intoxication. It is the constitution, in progress at this very moment, of the organized human bloc, powerful and autonomous – the mass coalescing of humankind.¹⁸

Anticipating the “mass coalescing” of humanity through “inter-human affinities” is not a remarkable prophecy in this age of Internet and Facebook. But Teilhard wrote this not

only before the invention of cyberspace and the Internet but in 1929, before the invention of broadcast television networks.

I venture to say that the accumulated knowledge in cyberspace today in spontaneous sites approximates Teilhard's noosphere, a reality that he named "superconsciousness."¹⁹ This is both an apt and provocative description of knowledge residing in cyberspace because it is generated by and belongs to all human beings. Constantly expanding, it unifies human experience, becoming quite literally a collective human consciousness on which stands individual human consciousness.

III. Civilization and the Divine Milieu

Proclaiming the inevitability of "the mass coalescing of humankind" for Teilhard is not equivalent to a guarantee of utopia. His application of evolution to the future of human civilization does not eliminate the "abortive starts, dead-ends and cataclysmic reversals in the process" that are the pattern for physical evolution in the past. This nuance can be captured by recognizing how paleontology views species.

A phylum is a cluster of related species considered as connected to each other through eons or evolution. Thus, each manifestation of the species covers it, its predecessors and its heirs, within "an envelope of life" that surrounds all these forms of evolving life. Consider, for instance, that the Hyracotherium, the prehistoric Eocene ancestor of the horse, is connected to the modern thoroughbred race horse. Similarly, human civilization must be analyzed across a long time span to understand its adaptations as vital to the present survival. Teilhard wants us to view the past, present and future as an organic whole. He writes:

It is the same *in every domain*: when anything really new begins to germinate around us, we cannot distinguish it – for the very good reason that it could only be recognized in the light of what it is going to be. Yet, if, when it has reached full growth, we look back to find its starting point, we only find that the starting point itself is now hidden from our view, destroyed or forgotten. Close as they are to us, where are the first Greeks and Romans? Where are the first shuttles, chariots, or hearth-stones? And where, even after the shortest lapse of time, are the first motor-cars, aeroplanes or cinemas? In biology, in civilization, in linguistics, as in all things, time, like a draughtsman with an eraser, rubs out every weak line in the drawing of life.²⁰

Although these different manifestations of energy are dispersed along a ladder in the order of being, they are, nonetheless, governed by the same forces. And, just as in the example of gases and organic substances that are fossilized and later return to energy form under the intelligent use of human kind, Teilhard views the same force to operate in the shaping of human civilization. In his view, the collapse of past civilizations is a precondition for the rise of new and better civilizations, very much in parallel with the

pattern of physical evolution of the species. Along with his bias in favor of Christianity, he locates the matrix of future civilization with the West, that is, with Europe.

It is easy for the pessimist to belittle that extraordinary period of history during which in the space of a few thousand years civilizations crumbled one after another into ruin. But it is surely far more scientific to discern once again, beneath these successive waxings and wanings, the great spiral of life always irreversibly ascending, but by stages, along the dominant line of its evolution. Susa, Memphis, Athens may crumble: but an ever more highly organized awareness of the universe is passed on from hand to hand and increases with each successive stage in clarity and brilliance....

But in dealing with this historical period we should be allowing sentiment to falsify fact if we refused to recognize that during its centuries the principal axis of anthropogenesis has passed through the West. It was in this ardent zone of growth and universal recasting that all that makes man what he is today was discovered — or at least *must have been rediscovered*, for even those things which had long been known elsewhere achieved their definitive human value only when they were incorporated into the system of European ideas and activities. We are not being merely naive if we hail as a great event the discovery by Columbus of America....

The fact is that during the last six thousand years, in the Mediterranean area, a neo-humanity has been germinating and is now at this moment completing its absorption into itself of the remaining vestiges of the Neolithic mosaic of ethnic groupings, so as to form a new layer, of greater density than all the others, on the noosphere. And the proof of this is that today, in order to remain human or to become more fully human, all the peoples from end to end of the earth are being inexorably led to formulate the world's hopes and problems in the very terms devised by the West.²¹

Before interpreting de Chardin as an apologist for the West, however, one should note that he was quite clear that the human species took physical shape in Africa. To assert that the noosphere first formed in Europe, then, is likely only a historical recognition and not the basis for some grand theory of racial or regional superiority. The more important issue is contained in his statement that “in order to remain human or to become more fully human, all the peoples from end to end of the earth are being inexorably led to formulate the world's hopes and problems.”

Analyzing this statement with the analogy to pre-historic hominoid species, the challenge to civilization may be understood in stark terms: Western civilization, like Chinese civilization or Egyptian civilization, is species destined to eventual obsolescence as were Neanderthals and Peking Man. Just as these forms gave way to *Homo sapiens* in the evolutionary process, particular civilizations are evolving into a common global civilization that unifies rather than divides humanity.

Faithfulness to the evolutionary comparison requires recognition that species do not so much disappear as they are absorbed. So too, with civilization: as suggested on the

evolutionary scale of civilizations, positive accomplishments from Egypt and Assyria are incorporate into the civilizations of Greece and Rome. The novel part of de Chardin's evolutionary scale is his dependence on matter as a stage for spiritual accomplishment. His theory makes no Manichean dichotomy between the idea of mathematics and the stone used to construct the pyramids of Egypt. One exists within the other and the advance of the human experience depends as much on the stone as it does on the idea of mathematics.

The easiest point of entry of de Chardin's thought to civilizational theory today is in terms of the environment. Teilhard anticipated many of the environmentalist concerns of today because of his conception of the pyramid of life. We are, of course, familiar with related notions like "the food chain." If humanity pollutes and corrupts the planet so as to destroy the links of animals and nature and human beings, then humanity attacks itself. River water, for example, is not just "river water" but an organic connection in the food chain that is both controlled and used by humanity, but whose destruction would be a form of species suicide. Its tides connect it organically to cities alongside its banks, while also framing the commerce and migration of peoples and ideas for the planet. Think of the Mississippi, therefore, as "Ol' Man River."

Teilhard challenges the Hobbesian theories that defined civilization as a conquest over the forces of nature. The brute confidence that reason and human engineering can overcome all natural barriers is often cited as the positive legacy of the Enlightenment and the modern era. In de Chardin, that confidence in human experience is not focused on overcoming nature, but rather by aligning one's consciousness in concert with natural forces. This definition of lasting civilizational achievement as concert with the environment is found in Teilhard.

Human civilization is the consciousness of all the matter in the universe: the astronomer is the consciousness of the stars being studied; the carpenter is the intelligence of the trees that produced his wood. Alongside these positive transformations of matter to the betterment of humanity are evil perversions that pollute, contaminate and kill. Thus, the purpose of all God's creation is fulfilled or frustrated by a set of human choices.

This approach to nature as misunderstood and misused by contemporary society anticipates the anti-Enlightenment thrust of critical theory as first developed out of the Frankfurt School by Max Horkheimer and Theodor Adorno. Where de Chardin parts company with today's Post-Modernist thinking, however, is his confidence in a teleological better place. That better place is the Omega Point and the vehicle to get there is in Teilhard's concept of love as the driving force and fire of human civilizational evolution.

IV. Love and The Omega Point

The energy that produced the first evolution created the consciousness of the noosphere, and also impels the human future. “Love is the affinity which links and draws together the elements of the world... Love, in fact, is the agent of universal synthesis,” writes de Chardin. It has been very easy for persons with a theological bent to conceive of “love” thus named as identical to a Christian virtue. However, I believe it is more useful to understand “love” in Teilhard’s evolutionary scheme as akin to the Greek philosophical notion of physical unity or magnetism.

Organic life is drawn to and then assimilates other elements, such as when a plant’s roots seek water and its leaves seek sunlight. These natural forces are absorbed into the life of the plant and become a higher form of life in the process. The human emotion of love can be understood to embrace other beings in much the same way. Here, as elsewhere in his system, Teilhard uses the same concept in paleontology as in civilization history.

If there were no internal propensity to unite, even at a prodigiously rudimentary level - indeed in the molecule itself - it would be physically impossible for love to appear higher up, with us, in "hominized" form. . . . Driven by the forces of love, the fragments of the world seek each other so that the world may come into being.²²

The effects of the noosphere do not eliminate evil, that is, the perverted use of the tools of technology or the awareness of our connectedness to others. In fact, the possibility to use science for good increases the evil in the world when science is used to divide or crush life. For de Chardin, “the Divine Milieu” is not heaven, but rather the general awareness in society (i.e. the human phylum) that every human use of energy has cosmic effects on others. Moreover, “God” in his writings is not necessarily the Christian God, but the Buddhist, Hindu divinity or the non-religious Gaia. Even atheists fall within his definition of the divine if they consider the earth to have a beginning.²³

This unity of consciousness will take place in the noosphere of human civilization, but like a physical force shooting a canon ball into the air, it has a trajectory and a target that lies in the future. He calls that moment, the “Omega Point.”²⁴

Because it contains and engenders consciousness, space-time is necessarily *of a convergent nature* [and] must somewhere in the future become involuted to a point which we might call Omega, which fuses and consumes them integrally in itself.²⁵

The Omega Point enables judgments that resemble, but do not constitute Teilhard’s theory of Good and Evil. He introduces no Decalogue or Pope to set standards of morality. Is the cosmos becoming more hominized, i.e. humanized with consciousness of the unfolding of life on the planet? or is that awareness thwarted? Good and Evil,

says de Chardin, is not constituted by a single act, but in how we respond to events and use or misuse them to expand life.²⁶

V. Conclusions

Elements of Teilhard's thought deserve incorporation into the contemporary field of civilizational analysis. This may be done, I submit, without need of repeating the Christian mysticism that was most pronounced in the final works of Teilhard, works that reflect his preoccupation with the questioning he suffered from Church authorities. It may not be denied, however, that de Chardin saw the movement towards the future as shaped and guided by the Christian experience.

He compared the consciousness of the material cosmos in the noosphere to the communion wafer of bread being consecrated by a priest during the mass into a new spiritual reality of Christ's Sacred Body. This is a bit much for a secular civilizationalist. One may also argue, however, that it was a self-protective apologetic by de Chardin to shield himself from the incessant prohibitions and condemnations issued out of the Vatican during his lifetime.²⁷

There is great reward to civilizationists in his work because he offers an important new dimension to a futuristic view of civilizational process. This concern with the future has been especially important in the ground-breaking work of Andrew Targowski²⁸ who has focused on a systematic inclusion of ecology, biology, energy, demographics and the like as factors shaping the future. A similar futurist dimension to civilization is evident in the work on youth culture²⁹ by Adán Stevens-Díaz, who has put modern dress upon Teilhard's visionary description of the noosphere with his discussion of the power of the Internet to create flash mobs and revolutionary movements.

Consider as example of non-futuristic thinking most political science and journalistic reports on the Arab Spring of 2011. Events in Egypt are usually described in terms of the actions taking place in the famous square or political statements issued in response. Mention of food shortages, for instance, is generally limited to a background factor fanning the unpopularity of the Mubarak regime. Civilization is introduced by reference to a desire to imitate the values of the West or as the result of contact via Internet and television with Western life styles. In sum, we are asked to view a political awakening as an intellectual event standing alone and independently from material changes in nature. De Chardin, in contrast, demands that both experiences are contained within the same "envelope of life."

De Chardin's interpretation of the Arab Spring might run something like this: Climate change damaged grain crops in Siberia and together with diminishing supply of gasoline contributed to rising prices of food. These were organic planetary events that brought an economic crisis in Egyptian and Tunisian societies because these material shortages altered cultural patterns of consumption. The Internet and social media expanded the

impact of these material changes and shaped an emerging collective consciousness that the political and economic systems of distribution had to be altered for life to prosper.

Once people deprived of freedom accessed the noosphere, that is, the reservoir of human experience of such things in other parts of the globe, the people were enabled to take coordinated actions according to patterns that had been successful in challenging stale political power. The eventual result of the environmental changes and material shortages was a new awareness that humanity could be unified around the exercise of basic principles of liberty and democratic expression. The two forces of nature and politics are interconnected in this Teilhardian vision because the noosphere of human consciousness embraces the knowledge of both how to pollute and also how to tumble regimes.

This sort of analysis, I submit, is the futuristic book end to the materialist-environmental approach of scholars like Jared Diamond and more recently Ian Morris. If “guns, germs and steel” are interrelated to civilizational processes in the past, ought we not to look for similar interactive factors in the future with “Internet, climate change and oil”? In this way, I believe we can incorporate Teilhard’s definition of the noosphere for studies of the future course of global civilization. As the French Jesuit wrote, such an effort will represent that “for a second time in the history of the world, man will have discovered fire.”³⁰

Annotated Bibliography* of the Works of Pierre Teilhard de Chardin***French titles and date of publication first: English translation follows**

- Le Phenomenene Humain*. Paris, Seuil, 1955/ *The Phenomenon of Man*. N.Y.: Harper, 1959; 1961 p.b. 1965 revised p.b.
Teilhard's only systematic presentation of his theme of the evolution of man towards Omega.
- L'Apparition de l'Homme*. Paris, Seuil, 1956 / *The Appearance of Man*. N.Y.: Harper, 1965.
Teilhard's theory of the origins of man.
- La Vision du Passe*. Paris, Seuil, 1957 / *The Vision of the Past*. N.Y.: Harper, 1967.
Development of the themes of *The Phenomenon of Man*.
- Le Milieu divin*. Paris, Seuil, 1957 / *The Divine Milieu*. N.Y.: Harper, 1960; 1965 p.b.
A classic essay on the interior life; a Christian spirituality "for those who love the world."
- L'Avenir de l'Homme*. Paris, Seuil, 1959 / *The Future of Man*. N.Y.: Harper, 1964; 1969 p.b.
Very important to an understanding of Teilhard's vision; sets forth the "grand option" that modern humanity must confront in facing the evolutionary future.
- L'Energie Humaine*. Paris, Seuil, 1962 / *Human Energy*. N.Y.: Harcourt Brace Jovanovich, 1971; 1972 p.b.
Six of Teilhard's major essays in which the theme of love energy is treated extensively. Fr. Wildiers considers them of "first importance for the sound understanding of his teaching. They are perhaps some of the most original and valuable expositions that he made."
- L'Activation de l'Energie*. Paris, Seuil, 1963 / *The Activation of Energy*. N.Y.: Harcourt Brace Jovanovich 1971; 1972 p.b.
These essays follow chronologically those in *Human Energy* and are important to an understanding of the inner coherence of Teilhard's vision.
- La Place de l'Homme dans la Nature*. Paris, Seuil, 1963 / *Man's Place in Nature*. N.Y.: Harper, 1966; 1973 p.b.
Teilhard's concept of man's place in the whole cosmic process, the evolving cosmos, includes the famous one on Original Sin which was the cause.
- Science et Christ*. Paris, Seuil, 1965 / *Science and Christ*. N.Y.: Harper, 1969.
Rich and stimulating ideas of a Christian philosophy for the modern world.
- Comment Je Crois*. Paris, Seuil, 1969 / *Christianity and Evolution*. N.Y.: Harcourt Brace Jovanovich, 1971; 1974 p.b.
These essays, which set forth Teilhard's vision of the Christian mystery and of his banishment to China. The original French title could not be used because of the publication in 1969 of a translation of the title essay "How I Believe" by Harper paperbacks.

La Direction de l'Avenir. Paris, Seuil, 1973 / *Toward the Future*. N.Y.: Harcourt Brace Jovanovich, 1975; 1975 p.b

The theme is that human fulfillment consists in personal communion with the divine center of the evolutionary process, culminating in the spiritualization of matter. Includes the famous essay "The Evolution of Chastity."

Ecrits du Temps de la Guerre, 1916-1919. Paris, Grasset, 1965 / *Writings in Time of War*. N.Y.: Harper, 1968.

The germs of all of Teilhard's later thought lie in these essays; they are his "intellectual testament." Written in the trenches in the midst of war and death, they are an expression of life, an impassioned vision of the Earth and an adoration of God. (Seven essays in the French edition are not in the English edition. However, two will be found in *Hymn of the Universe* and the remaining five in *The Heart of Matter*.)

La Coeur de la Matiere. Paris, Seuil, 1976 / *The Heart of Matter*. N.Y.: Harcourt Brace Jovanovich, 1979.

The last of the Collected Works, the book contains in the title essay a spiritual autobiography and in "The Christic" a development of *The Divine Milieu*. Written towards the end of his life, they sum up Teilhard's unique vision.

Hymn of the Universe, New York: Harper & Row. 1961.

Related Works Cited

Bergson, Henri. 1907/1911. *Creative Evolution*, tr., Arthur Mitchell, New York:

Dover. from *L'Évolution Créatrice* 1907. Paris: Presses Universitaires de France.

Dawkins, Richard. 1986. *The Blind Watchmaker: Why the Evidence of Evolution Reveals a Universe without Design*. New York: W. W. Norton & Company.

Diamond, Jared. 1997/1999. *Guns, Germs, and Steel: The Fates of Human Societies*. New York: W. W. Norton and Company.

Gould, Stephen J. 1977. *Ever Since Darwin: Reflections in Natural History*. New York: W. W. Norton & Company.

Gould, Stephen J. 1980. *The Panda's Thumb: More Reflections in Natural History*. New York: W. W. Norton & Company

Horkheimer, Max and Theodor Adorno. 1944. *Dialectic of Enlightenment*. English translation by John Cumming (New York: Herder and Herder, 1972)

Morris, Ian. 2010. *Why the West Rules – for Now*. New York: Farrar, Straus and Giroux.

Spencer, Herbert. 1896. (1864, 1867; revised and enlarged: 1896), *Principles of Biology* in two volumes. D. Appleton & Co., New York.

Spencer, Herbert. 1897. *The Principles of Sociology*, 3 vols. New York: D. Appleton and Co., 1876-96.

Stevens-Díaz, Adán. 2011. "Civilization and Youth Culture." *The ISCSC Newsletter*, 50 (Winter 2011) 1, 7.

- Stevens-Díaz, Adán. 2006. "Dystopia and Civilizations: Comparison of Social Movements in the Network Society." *Comparative Civilizations Review* (55: 72-90).
- Targowski, Andrew. 2011. "The Civilization Manifesto Towards the Wise Civilization and New Ideology." *Civilizational Futures: Proceedings of the 2010 Conference of the International Society for the Comparative Study of Civilizations*. Editors: Connie Lamb and Andrew Targowski. Provo, Utah: Brigham Young University. 1-59.
- Toynbee Arnold. 1946/1974. *A Study of History*. 10 vols. Abridgement by D. C. Somervell, 2 vols. Oxford: Oxford University Press.

Endnotes

¹ His baptismal name is "Pierre", his surname, "Teilhard" and the title "de Chardin" a tradition for his family which was given seigniorial rights under King Louis XVIII of France. In this text, "Teilhard" and "de Chardin" shall be used alternately for reasons of style, since both surnames are his.

² The late Roger Wescott, President of the ISCSC from 1992 to 1995 was a board member of the Teilhard Association in 1974. See: http://www.teilharddechardin.org/history_8.html

³ *The Phenomenon of Man* pg. 70.

⁴ 1986. *The Blind Watchmaker: Why the Evidence of Evolution Reveals a Universe without Design*. New York: W. W. Norton & Company.

⁵ *Ever Since Darwin: Reflections in Natural History*. 1977. New York: W. W. Norton & Company; and *The Panda's Thumb: More Reflections in Natural History*. 1980. New York: W. W. Norton & Company

⁶ "The earth was probably born by accident; but in accordance with one of the most general laws of evolution, scarcely had this accident happened that it was immediately made use of and recast into something naturally directed. By the very mechanism of its birth, the film in which the 'within' of the earth was concentrated and deepened emerges under our eyes in the form of an organic whole in which no element can any longer be separated from those surround it." *The Phenomenon of Man*, 74.

⁷ *The Phenomenon of Man* pp. 68ff.

⁸ *Hymn to the Universe*, 1961.

⁹ *The Phenomenon of Man* p. 48.

¹⁰ *The Phenomenon of Man*, p. 141.

¹¹ *The Phenomenon of Man*, pp. 165-166.

¹² *The Phenomenon of Man* pg. 103ff, see 119-120.

¹³ *The Phenomenon of Man*, pg. 69.

¹⁴ *The Phenomenon of Man*, p. 151.

¹⁵ ...evolution is now, whether we like it or not, gaining the psychic zones of the world and transferring to the spiritual constructions of life not only the cosmic stuff but also the cosmic 'primacy' hitherto reserved by science to the tangled whirlwind of the ancient 'ether'. --*The Phenomenon of Man*, 220

¹⁶ *The Phenomenon of Man*, p. 183.

¹⁷ *The Phenomenon of Man*, pp. 35-36.

¹⁸ *Toward the Future*, p. 20.

¹⁹ "We are faced with a harmonized collectivity of consciousnesses to a sort of superconsciousness. The earth is not only becoming covered by myriads of grains of thought, but becoming enclosed in a single thinking envelope, a single unanimous reflection." (*The Phenomenon of Man* 1961, pp. 251-2)

²⁰ *The Phenomenon of Man*, p.121.

²¹ *Hymn of the Universe*, p. 34 (online version)

²² *The Phenomenon of Man*, p. 264.

²³ See *Toward the Future*, pp. 40-59 et passim.

²⁴ The name for the Omega point derives from Revelation 1:8 in the Christian Scriptures that speaks of God as the "Alpha and the Omega."

²⁵ *The Phenomenon of Man* p. 259.

²⁶ "Not everything is immediately good to those who seek God; but everything is capable of becoming good" (Pierre Teilhard de Chardin, *The Divine Milieu* [New York: Harper & Row, 1960], 86). Also: "In the final analysis, the questions of why bad things happen to good people transmutes itself into some very different questions, no longer asking why something happened, but asking how we will respond, what we intend to do now that it happened."

²⁷ Gradually, the works of Teilhard gained greater acceptance and became a Catholic view on evolution and futuristic studies. Consider the front-page article by Cardinal Agostino Casaroli wrote of *l'Osservatore Romano* on June 10, 1981: "What our contemporaries will undoubtedly remember, beyond the difficulties of conception and deficiencies of expression in this audacious attempt to reach a synthesis, is the testimony of the coherent life of a man possessed by Christ in the depths of his soul. He was concerned with honoring both faith and reason, and anticipated the response to John Paul II's appeal: 'Be not afraid, open, open wide to Christ the doors of the immense domains of culture, civilization, and progress.'" There is some solace that this image of the consecration of a secular matter by Christians was recently upheld by Pope Benedict XVI as an inspiration taken from Teilhard for all Catholics. 'This is also the great vision of Teilhard de Chardin: in the end we shall achieve a true cosmic liturgy, where the cosmos becomes a living host.'

http://www.traditioninaction.org/ProgressivistDoc/A_120_RatzTeilhardI.html.

²⁸ Targowski, Andrew. 2011. "The Civilization Manifesto Towards the Wise Civilization and New Ideology." *Civilizational Futures: Proceedings of the 2010 Conference of the International Society for the*

Comparative Study of Civilizations. Editors: Connie Lamb and Andrew Targowski. Provo, Utah: Brigham Young University. 1-59.

²⁹ Stevens-Díaz, Adán. 2011. "Civilization and Youth Culture." *The ISCSC Newsletter*, 50 (Winter 2011) 1, 7. and. 2006. "Dystopia and Civilizations: Comparison of Social Movements in the Network Society." *Comparative Civilizations Review* (55: 72-90).

³⁰ "The Evolution of Chastity" in *Toward the Future*. London: Collins, 1975, 86-87.