# NOTES

## THE HUMAN PHENOMENON<sup>1</sup>

After a wait of some four years, an English translation of Le phénomène humain² has been published. A book which excited readers in Europe and elsewhere has reached the American market. One may doubt that the impact will be quite as profound here as it was in France. Apart from normal differences in the two reading publics, the French were influenced by the martial failures of World War II, subsequent political inadequacies, and existentialism. In this setting, a book which showed that one could be a modern (indeed, a scientist) and a believer in God and purpose was most enthusiastically received. Nevertheless, the American edition of a very difficult book is selling well here in the United States. From a purely practical point of view, then, it behooves teachers of philosophy and theology to know about the book's contents; they shall certainly be asked about them.

# THE AUTHOR<sup>3</sup>

Pierre Teilhard de Chardin was born in the Auvergne region of France in 1881. He entered the Society of Jesus at Aix-en-Provence in 1899. His studies were made on the Isle of Jersey and in Hastings, England, interrupted by three years of teaching in Cairo. It was here that his definitive passion for paleontology developed. He was pursuing higher studies in Paris when World War I made him a stretcher-bearer for four years, during which time he was awarded France's most important military decorations.

In 1922 he received his doctoral degree from the University of Paris; he had already started teaching geology at the Institut Catholique of Paris. In 1923 he went to China for the first of several extended tours of scientific duty in that country. These tours lasted until 1946, with interludes in Paris, French Somaliland and Ethiopia, and South Africa. In China he was closely associated with the work at Choukoutien, the site of Sinanthropus, and made numerous long exploratory trips throughout the country. In 1951 he was given a study at the Wenner-Gren Foundation for Anthropological Research in New York. He died of a heart attack on Easter Sunday, 1955, and was buried at the Jesuit Novitiate, St. Andrew-on-Hudson, Poughkeepsie, New York.

- <sup>1</sup> Pierre Teilhard de Chardin, *The Phenomenon of Man*. New York: Harper, 1959. All references and paginations in this article are to the American edition.
  - <sup>2</sup> Pierre Teilhard de Chardin, Le phénomène humain. Paris: Editions du Seuil, 1955.
- <sup>3</sup> Cf. Claude Cuénot, *Pierre Teilhard de Chardin* (Paris, 1958), an extremely full biography, with the most complete bibliography of Teilhard's writings, published and unpublished.

In the course of Teilhard's career he published several hundred papers and monographs in the fields of paleontology and anthropology, together with numerous articles for the general public. But a broader, and most probably a more profound, influence on many people is being exercised by the writings in which he attempts a synthesis of various areas of reality, with evolution as the prime key to an appreciation of the workings of God and His universe.

During his life he was not allowed by superiors to publish his thoughts on evolution, faith, and humanity. Whatever the reasons were, this state of affairs had several bad effects. One was that Teilhard was not subjected to the give-and-take of reviewers and critics. Teilhard was very much an individual, and he drew his opinions from his own experience as a scientist and from his own soul. As Tresmontant points out, 4 certain doctrines of Teilhard come remarkably close to those proposed by modern biblical scholars; but he seems not to have read these writings. Similarly, dogmatic theologians and metaphysicians with a co-operative spirit could have corrected certain points and rounded out others. I may anticipate the conclusion of this article by saying here that it is still not too late for such action.

Another bad effect of the nonpublication of Teilhard's works during his life was the fact that he sent manuscripts and notes to friends in Europe. As Msgr. de Solages once remarked, it was a case of "Save me from my friends!" They had the notes duplicated, and these copies spread abroad with enthusiastic reception. Naturally some came to Teilhard's superiors, who were already worried by la nouvelle théologie. The dubiety about some of Teilhard's doctrines was, of course, enhanced in the minds of authorities when, after his death, his works began to be published without reference to the norms either of the Society of Jesus or of the Church. Teilhard had willed the manuscripts to a group of friends. Two committees were formed, one scientific and the other general (the first including practically all the famous names in paleontology, the second stiff with social rank), and these committees are listed in the front of the French edition of Le phénomène humain. Six volumes of his works have appeared in French, and many trans-

<sup>&</sup>lt;sup>4</sup> Cf. Claude Tresmontant, Pierre Teilhard de Chardin: His Thought (Baltimore, 1959) p. 84.

<sup>&</sup>lt;sup>5</sup> Cf. Bruno de Solages, "Christianity and Evolution," Cross Currents 4 (1951) 26-37. This is the best short article on Teilhard's thought that I know of.

<sup>&</sup>lt;sup>6</sup> We are told that Teilhard sought expert advice with regard to this act. He must have found a more benign opinion than is to be found in the decree of the Sacred Congregation of Religious (AAS 5 [1913] 366) or in A. M. Arregui, Annotationes ad Epitomen Instituti Societatis Jesu (Rome, 1934) pp. 476-77.

<sup>&</sup>lt;sup>7</sup> Reading the other works of Teilhard is necessary for a proper evaluation of his total thought, for his attitude toward the supernatural, and for an idea of his high spirituality.

lations into other tongues. Books about Teilhard's thought are appearing with great rapidity.8

It is not irrelevant to spend a paragraph on the personality of Teilhard. He was a prose poet and a mystic. His conversation was always ennobling, even when his ideas became a bit too original and too expansive for the workaday vocabulary. This is a characteristic of his writings too. What may be less apparent to one who merely reads the cold printed word (but nevertheless furnishes the key to why he wrote at all, and why he wrote as he did) was his extreme empathy with any and all human beings he encountered. Sacerdotalized, this made him missionary. I cannot do better than quote from a tribute written by a fellow scientist, an eminent geologist who had worked with Teilhard:

This dry factual account of his life fails to mention Teilhard's most striking characteristics—his humility and his warm sympathetic humanity. He was utterly without conceit or self-interest. He found it well-nigh impossible to think ill of any man, even when others took advantage of his forbearance and generosity. He showed a keen interest in other people and their work, so that after half an hour in his company a stranger felt that he had discovered a life-long friend whom he had known for years. He always seemed surprised that others should hold him in such high affectionate respect.<sup>9</sup>

#### THE METHODOLOGY AND PURPOSE OF THE BOOK

Before outlining the argument of the book, it seems imperative to delineate the type of book the author claims it to be; this will lead us into a brief discussion of its goal, keeping in mind the particular audience to which it is addressed.

The author begins by stating clearly that *The Human Phenomenon* is a scientific treatise, on the phenomenological level.<sup>10</sup> By this statement he excludes any entrance into the fields of philosophy or theology. But just what is this phenomenological approach, as it actually works out in the volume?

As Msgr. de Solages points out,<sup>11</sup> those of us who are used to modern Scholastic definitions of disciplines may have difficulty in placing this approach

Harper and Brothers are preparing English editions of the collected works, the *Oeuvres* (Paris: Editions du Seuil).

<sup>&</sup>lt;sup>8</sup> Two good works in English are Tresmontant's (supra n. 4) and Nicolas Corte, *Pierre Teilhard de Chardin: His Life and Spirit* (New York, 1960).

<sup>&</sup>lt;sup>9</sup> George Barbour, "Memorial to Pierre Teilhard de Chardin, S.J. (1881-1955)," Proceedings Volume of the Geological Society of America, Annual Report for 1955 (July, 1956) pp. 170-71.

<sup>10</sup> The Human Phenomenon, pp. 29-30.

<sup>11</sup> Op. cit. (supra n. 5).

in one of the traditional categories. For that matter, an analogous difficulty may be experienced by the natural scientist.<sup>12</sup> De Solages states that the nearest traditional framework of Teilhard's approach is that of what Aristotle called physics and the Scholastics cosmology. However, de Solages adds: "In its consideration of the totality of reality, the point of view is the objective view of science. It aims to present a systematic exposition of this total reality and to sort out its essential laws and those pertaining to the existence of God."

Thus, we may say that the phenomenologist in the Teilhardian sense examines the discernible phenomena of the universe, seeks to extract from them every bit of evidence, to arrange them meaningfully, and to draw up laws of regularity. He does this without entering into any analysis of the essences of the beings seen in natural action and without adducing the evidence of God's direct revelation.

To the critics who claim that Teilhard goes beyond the proper limits of phenomenology and still leaves much to be desired, we can point out that from the start the author warns us that his view of reality will be essentially partial, because philosophy and theology are omitted. The reader may judge for himself whether or not Teilhard leaves the realm of pure phenomenology, especially in Book 4, "Survival," and in the Epilogue, "The Christian Phenomenon." But also, the reader must not demand too much metaphysics and theology from one who was not a professional metaphysician or theologian and who deliberately omitted these areas, except for an occasional footnote indicating where they should have to step in and complement his work.

The limitations of the book being thus stated, we may turn to a consideration of its aim. What was Teilhard trying to do here, and to what audience was his writing directed? Obviously, the book is addressed to his fellow scientists and equivalent readers. It seems to me that he was attempting to provide an apologetic in terms of science. Inasmuch as the book reaches from the atom to God, we may call it an essay in a new natural theology.

All of us who are engaged in the pursuit of science realize that the consecrated language of Catholic theology is unintelligible to our colleagues. The average non-Catholic scientist is the product of a secularist education. Concepts like the natural law—and, even more so, grace and sin and redemp-

- <sup>12</sup> Cf. review of *The Human Phenomenon* by George Gaylord Simpson, in *Scientific American* 202 (1960) 201–7. Simpson, a brilliant paleontologist, is a secularist; he thinks this is primarily a religious, not a scientific, work.
- <sup>18</sup> Cf. L. Malevez, S.J., "La méthode du P. Teilhard de Chardin et la phénomenologie," Nouvelle revue théologique 79 (1957) 579-99. Of course, Teilhard is within his rights in using the term "phenomenology" according to his own definition; it does not have to be that of Husserl.

tion—are practically incomprehensible to them. Such a priestly man as Teilhard wrestled with this problem, and he decided to approach God through concepts which would be intelligible to his fellow scientists.

Thus, for example, Teilhard has been criticized for omitting the fact of creation from the commencement of his account of evolution. I can only assure the critics that, for the audience envisioned, such a beginning for the book would have been fatal.

Teilhard chose the theme of evolution for his approach, not evolution in the sense of its truth or inadequacy as a theory, but in the sense that evolution has become a dimension of thought. This is certainly true of scientists engaged with the life sciences. This evolution was not simply a matter of paleontology, the evolution of the past up to the present, but also evolution as currently ongoing and the evolution of the future.

Actually, the writings of Teilhard contemporaneous with the early drafts of this book tell us that our author had come to lose considerable of his interest in the past and to develop special thoughts about the future of man. At this time, too, he became even more keenly aware of his science as a platform for religion, rather than an end in itself. However, he always remained faithful to his double vocation as a religious and a scientist, and almost to the very end of his life he went on arduous field expeditions in the interests of human paleontology.

Finally, it must be remembered that Teilhard essayed no more, and could do no more, than bring his fellow scientists to the door of the temple. The riches to be found within that spiritual edifice they would have to discover from others.

# BRIEF ANALYSIS OF BOOKS ONE AND TWO

Book 1, "Before Life Came" (the translation lacks something of the French "La prévie"), begins with the primal constituents of matter in the universe and with the characteristics of matter in the atomic state. There is a multiplicity of small bodies, each vibrant with its physical powers, and all contained in a system. Even at this simplest stage of matter we note the first manifestations of a basic law, that of recurrence, the law of increasing complexification. Atoms may be ranged in their order of complexity, some possessing more of the recognizable particles (such as electrons) than others.

Here, too, we meet the first example of the attempt of Teilhard throughout the book to reconcile opposites. He distinguishes between the "without" of things and the "within." The "without" is the physical being, with its observable activities; this is the object of scientific, statistical study. The "within" is another set of powers, which can be estimated only in the results of the whole course of evolution. The "within" is equated by Teilhard with

"conscience," consciousness; for the other half, or the other face, of the law of recurrence is that of the increase of consciousness during evolution. "Spiritual perfection (or conscious 'centreity') and material synthesis (or complexity) are but the two aspects or connected parts of one and the same phenomenon." Teilhard attributes the dim beginnings or foreshadowings of consciousness to the atomic and molecular state of matter.

This "panpsychism" has been severely criticized, not always justly in my opinion. Teilhard is here reasoning as does a paleontologist (not an unexpected activity in an eminent paleontologist's thought). When we find a certain well-developed biological form in a certain stratum, we feel safe in postulating its ancestor(s) in a lower and earlier stratum, even though the exact form or forms be not yet discovered. The induction so far is too good to make this postulation a particularly dubious process. Teilhard is here postulating powers ancestral to those later manifested in living beings. While one may consider this mere speculation perhaps, certainly no philosopher can say it is not a true deduction on the evidence. The philosopher can state that a stone does not manifest any other than inanimate activities; he cannot say that no such powers are present. And the intimate atomic activities of the constituents of a stone, we now know, are vastly more complicated and energetic than ever could have been imagined before the development of the atomic theory.

A cognate distinction to the "within" and the "without" is introduced under the headings of tangential and radial energy. Tangential is the energy measurable by the physicists in material reactions. Radial energy is imponderable; it is the energy of union, of synthesis, and ultimately the energy of psychism. Here Teilhard is dealing with the fact that the material universe suffers from entropy—the gradual dissolution of energy with a distant future of an extremely dull level; but life tends to go upwards, towards the more complex ("swimming upstream," we might say).

In the early days of the existence of the universe, the law of complexification holds true as atoms unite with other atoms, producing molecules. Eventually, huge molecules are produced, such as are our present-day proteins. The stage is set for the appearance of the biosphere.

Book 2 is briefly labeled "Life." A critical point had been reached in the inorganic world; there was a sudden "jump," and a new phenomenon appears on the face of the lithosphere and the hydrosphere. Very simple living entities occur; eventually, for most manifestations of life, the cell is the natural granule. Again, as in the case of the atom and the molecule, cells do not exist as a mere aggregation but as part of a system.

The introduction of life was a decisive step forward in the development of

<sup>14</sup> The Human Phenomenon, pp. 60-61.

consciousness. It also selected from innumerable possibilities and channeled the future course of evolution, as will every successive event.

One may list the elemental movements of life: reproduction, multiplication, renovation, conjugation, association, controlled additivity. Most of these are familiar to us, but a brief comment on the several headings may be in order.

Reproduction is a process whereby the genetic elements of a cell are replicated, so that two cells exist where only one existed before. It is here cleverly described as the rendering permanent of the unstable. Organic molecules are, of course, more unstable than those that are inorganic. Multiplication may be thus graphically summarized: theoretically, one single-celled animal could end up by covering the face of the earth. Actually, this process is held in check by many other forces. Renovation means that each living thing is a focus of diversification. The variation in any biological population is largely caused by recombinations of genetic material from the parents of the extant population. Conjugation accelerates and intensifies the work of multiplication and renovation. In English-speaking biology books this word means the sharing of genetic materials by two individuals of a single-celled status. However, it quickly yields to the more complicated fact of sex. Association is found in various degrees. Bacteria form simple aggregates without any noticeable structure. Cells become clumped into colonies, with more or less co-operation among the individuals. With the Metazoa (many-celled animals) we have what our author calls "a cell of cells." Here there is interdependent structure, the sort of situation with which we are familiar among ordinary plants, animals, and men. Additivity is a most important concept for the theme of this book. It is not simply a characteristic of life which manifests itself horizontally, by the crossing of characters in the same generation. It is an addition in a predetermined direction; our author does not hesitate to use the word "orthogenesis," a word which is much in disrepute among current biologists and anthropologists, especially when it is believed to conceal the implication of an inner force which directs evolution. However, here Teilhard considers it a useful word to indicate the fact that it is a property of living matter to form a structure which yields one term after another. Perhaps the phrase "directed evolution" as used by some American biologists is nearly synonymous. Basically, this seems to mean that the mere fact of a certain development in a biological entity limits and conditions any subsequent development. At all events, Teilhard points out that he is talking not merely about a spread of life but about an ascent.

Following this section on the elemental movements of life comes a "Corollary: The Ways of Life," in which the following ways are discussed: profusion, ingenuity, indifference, and global unity. *Profusion* is the result of mul-

tiplication and is at the heart of the struggle for life. "'Survival of the fittest by natural selection' is not a meaningless expression, provided it is not taken to imply either a final ideal or a final explanation."15 Here Teilhard returns to a word which is translated "groping." But for him groping is directed chance; it means that life in its various forms tries every possibility. It registers in what the scientist calls "adaptive radiation," whereby sundry forms of a group try out various ecological niches (the sea, the forest, the air, etc.) and become adapted to them, thus bringing about a differentiation within the group. In this, and in every other process, life exhibits great ingenuity. This, of course, has been admired by man in nature from the earliest times. As regards the individual, life seems to exhibit a great indifference, "On the one hand the individual unit is lost in number, on the other it is absorbed in the collectivity, and in yet a third direction it stretches out in becoming. This dramatic and perpetual opposition between the one born of the many and the many constantly being born of the one runs right through evolution."16 This antinomy is only cleared up with the appearance, in the world of mind, of the person. The fourth way of life is global unity. This we have already noted of inorganic matter; with life it is more striking and more organized. Indeed, life seems to be one single and gigantic organism. It is this unity we must discern underneath the plurality and essential rivalry of individual beings.

Under the heading "The Ramifications of the Living Mass" we come to a general description of how life diversifies, a process which results in the varied array of plants and animals in the world today and in the past.

First of all, there are certain aggregates of growth. Very gradually phyla are formed (and Teilhard uses this word in a very general sense, meaning all natural groups of living things, but especially the larger classifications). Certain beings, under one or more of many possible influences, draw together and draw apart from their neighbors. They form, as it were, a sheaf of many lines, but the sheaf now has its own axis. This phylum is a collective reality, but also one which is elastic and dynamic. It starts its career with many potentialities, contributed by the founding forms.

The phyla then exhibit the *flourishing of maturity*. Briefly, this is a fanning out of the phyla, until each may be pictured as "a verticil of consolidated forms."

A phenomenon which is commonly observed in this mature state of a phylum is that of socialization. We may think this phenomenon relatively rare and that possibly only ants, bees, and mankind exemplify it. However, this is not true; it seems to be another of the laws of living matter.

With this maturity, we have reached the beginning of the end of the phy-

<sup>&</sup>lt;sup>16</sup> Ibid., p. 109. <sup>16</sup> Ibid., p. 111.

lum, unless by some system of mutation one line or the other strikes out anew. This process, again, is quite close to what we biologists call a secondary adaptive radiation.

The third situation to be noted in the ramification of living matter is the effect of distance. Chief among these effects is the exaggeration of the apparent dispersion of the phylum, mainly caused by the extinction of intermediary forms. Secondly, there is an apparent suppression of the "peduncles," the original stocks from which the phylum or phyla arose. The individuals at origins of the phyla were few, and all beginnings are misty. As Teilhard asks, who now knows where, when, or how such a recent people as the Greeks came into being?

Following upon these general headings, our author takes up in a more detailed manner the ramification of the mammals, after presenting a standard picture of the development of the animal kingdom. The mammals are, of course, of particular interest to us, because it is the phylum of man himself. In mammals, too, in contradistinction to their forebears the reptiles, we witness an insistence on and an expansion of the brain. They are the highest exemplification of the law of cephalization.

It is with his presentation of the law of cephalization (or, as this translation has it, cerebralization) that Teilhard meets, head on, the question of direction in evolution, and by implication the question of finalism. His answer is a definite affirmative.

In the case of the evolution of animals (which alone interests us here), a direction is registered in the increasing complexity and effectiveness of the nervous system. After the great change-over from reptiles to mammals, this direction is most noticeable in the development of the brain. Here is evidence of the within of things, an orthogenesis; nor does this within negate the evidence of the without of things, which is Darwinian in nature (i.e., mutations, natural selection, etc.). Here again Teilhard attempts to reconcile what other men consider irreconcilable opposites. The within of things shows a Lamarckian inner principle; the without is Darwinism. The Certainly, the within is demanded by sound philosophy, no matter how anathema it may be to neo-Darwinian anthropologists.

Among the mammals, one branch specialized in the enlargement of the brain (together with other characteristics), and this branch is the Primates, among whom man is numbered. The highest prehuman development of Primates sets the stage for man.

<sup>17</sup> We must remember that there was a large element of philosophy in the original proposition of Lamarckianism by its author. The inner orientation and finality of beings was part of Lamarck's system.

### BOOK THREE: THOUGHT

Suddenly in the history of life a completely new phenomenon burst upon the world, a living form equipped with something no other animal possesses, namely, reflection. "From our experimental point of view, reflection is, as the word indicates, the power acquired by a consciousness to turn in upon itself, to take possession of itself as of an object endowed with its own particular consistence and value; no longer merely to know, but to know oneself; no longer merely to know, but to know that one knows." Here we are in the presence of a new level, a new sphere, a new state: hominization has occurred. Towards the formation of this newness evolution has tended; indeed, it would not be satisfied without it.

Teilhard employs the simile of the boiling of water. There is a point at which the water ceases to be water and enters on a new state. That point had been reached in the evolution of the intelligence of man, all animal intelligences having been but preparatory.

In a footnote Teilhard emphasizes again that he is here describing phenomena. "But, with that said, there is nothing to prevent the thinker who adopts a spiritual explanation from positing (for reasons of a higher order and at a later stage of his dialectic), under the phenomenal veil of a revolutionary transformation, whatever 'creative' operation or 'special intervention' he likes. . . . Is it not a principle universally accepted by Christian thought in its theological interpretation of reality that for our minds there are different and successive planes of knowledge?" 19

The highest reach of the phylum of Primates has achieved the highest plane of evolution: not only socialization, but the personalization of each member through hominization.

Hominization has two meanings for Teilhard. The first is the leap from instinct to thought—the advent of reflection. The second is the ongoing process of the progressive phyletic spiritualization in human civilization of all the forces of the universe. Geogenesis has yielded to biogenesis, and this to psychogenesis; finally we come to noogenesis. The change from animal to man was geologically small and was an event which could have made little impression on the total world at the time. But the gradual creation of the noosphere is still bringing about the most tremendous terrestrial change ever achieved. "Man came silently into the world." Mankind followed the normal evolutionary rules in the development of a new phylum; but once the first meaning of hominization was reached, a process began which has changed the whole world.

<sup>&</sup>lt;sup>18</sup> The Human Phenomenon, p. 165. <sup>19</sup> Ibid., p. 169, footnote. <sup>20</sup> Ibid., p. 183.

Briefly, then, Teilhard describes the early stages of the history of man (not completely to this writer's satisfaction, but perhaps adequate to Teilhard's purpose). At any rate, the forms with the difficult names show a still diverging type of evolution, in contrast to what is to come. The period which made all the difference in human history is still called the Neolithic, although what made the difference was not merely a new technique in the fashioning of stone tools. With the discovery of agriculture and animal husbandry, mankind passed from the era of food collecting to that of food producing, and thus to the modern era, once the use of metals had been achieved. At this time, there was a vast increase in population, and soon the noosphere had spread out over the whole world.

Jumping to the modern world, Teilhard states that the principal axis of civilization passed through the West. Since the Renaissance, tremendous changes have occurred: in the field of economics and especially with industrialization, in social changes, and in thought. This is truly an age of transition. The changes that have made profound differences were the two discoveries of space-time and of duration, both of them enormous concepts and realities. Man as an evolution has become conscious of itself; more than that, he has realized that he is responsible for his present and future evolution.

Hence a profound disquiet has seized on many men. They feel lost in the enormous reaches of space-time, of duration, and of sheer number. Is there a proper goal or conceivable outcome of human evolution? We are in the midst of an organic crisis in evolution. Mankind will become nerveless, will not push ahead, unless there is indeed a consummation, which must involve the utmost limit of human personality and powers. For the moment, Teilhard will only supply this much of an answer to man's questing. First, in the future there is some form of survival. Second, to reach a superior form of existence, "we have only to think and walk in the direction in which the lines of evolution take on their maximum coherence." With this cryptic transition we turn to the climax of *The Human Phenomenon*.

## BOOK FOUR: SURVIVAL

For Book 4 there is an initial cautionary note. This note warns us against isolationism in any form, individual or racist. Teilhard denies that true human progress may be made à la mode of survival of the fittest, or the superman. There must be the utmost of co-operation.

Indeed, what we are witnessing now is a confluence of thought. This confluence is the result of two main factors. The first is the fact that the world is a globe; it is pretty well occupied by humans and does not stretch out in all

<sup>&</sup>lt;sup>21</sup> Ibid., p. 233.

directions without limit. Another physical fact is that of modern communications. This leads to a concentration of the energies of consciousness. The second great factor is the coalescence of the branches of humanity, so that we have only one human species. This results in a natural cohesion of humanity; it is yielding a great global unity. We have a megasynthesis of mankind, the culmination of all structuring and arrangements during the course of evolution. Thus we can advance all together toward a spiritual renovation of the earth.

"The spirit of the earth" involves a mankind which is an organic superaggregation of souls. A correlative of mankind is knowledge—knowledge for itself and knowledge for power to be sure, but knowledge necessarily organized by values. But this creation of the spirit of the earth involves unanimity on the part of mankind. A new domain of psychical expansion is needed, and indeed stares us in the face.

The next chapter reveals the secret of this new domain; it is entitled "Beyond the Collective: The Hyper-Personal." After another cautionary note, this time against discouragement, we come to the climax of the Teilhardian system. If one glances at the diagram on page 192, "The Development of the Human Layer," we may note its resemblance to a tulip plant, with diverging leaves below and a tightly furled flower above. The leaves would be the early forms of mankind, each diverging from the main stem (although contributing to it); the flower represents modern mankind from the Neolithic on. Here we have unitary and converging evolution. Toward what does the convergence direct itself?

The trend of much modern thought is to deplore the depersonalizing effect of the current human situation. On the contrary, never was so much of the universe absorbed by personal consciousness. But the seeming opposition between "the All and the Person" can be resolved by disregarding the seemingly granular structure of humanity (a heap of thinking cells) and realizing that the noosphere is a *centered* whole. Equipped now with this consciousness, space-time are necessarily of a convergent nature. But these radii must meet somewhere, and they are directed toward the Omega point. It is beyond our souls we must look, not the other way round.

The goal of humanity is not merely a collection of the achievements and dreams of humanity; to be satisfying, it must be an assembly of all consciousness as well as all the conscious. Omega can only be a distinct center radiating at the core of a system of centers. It must be personal, in a personalizing universe. We must not confuse individuality and personality. A personality finds itself only by uniting, center to center, with another. And so we come to the topic of love.

Love is not just a sentiment. It is the force which joins living beings by what is deepest in themselves, and puts them in resonance with the All. The Omega point is the source of love and the object of love. We must acknowledge this as a present reality, not as a future dream. Omega is in itself the reason for love, and it is the reason for survival. It is the last term of a series, and yet it is beyond all series. It escapes from the categories of that time and space which it gathers together. Its characteristics are autonomy, actuality, irreversibility, and transcendence. To the theist reader, Omega is God.

The last chapter of the book proper is entitled "The Ultimate Earth." It is difficult for us to think of the ultimate convergence of mankind in the Omega point without giving it a temporal significance. Hence, Teilhard discusses the end of the world, and what may happen to man before that time is reached.

Although most representations of the end of the world are apocalyptic in nature, this is not Teilhard's point of view in this book. Rather, he concentrates on the fact of the final convergence. Mankind is irreplaceable, and it must reach its goal. Until that time he posits three approaches which will characterize the further progress of mankind.

The first approach is through the greater organization of research. We are now only making the first groping, stumbling steps in science. Imagine what the future holds out for us! The second approach is through the discovery of the human object. "Man is, if I have not gone astray in these pages, an object of study of unique value to science for two reasons. (i) He represents, individually and socially, the most synthesised state under which the stuff of the universe is available to us. (ii) Correlatively, he is at present the most mobile point of the stuff in the course of transformation." We need to create a new science of human energetics. The third approach is through the conjunction of science and religion. This will surely happen, first of all because of a necessity of impetus for science. Man will continue to work and to research only if he is convinced that the universe has a direction and a goal. This conviction science by itself cannot give. Secondly, science must go from analysis to synthesis; when it does this, it looks to the future and to the All. Thus it emerges in terms of option and adoration.

Religion and science are the two conjugated faces or phases of one and the same act of complete knowledge—the only one which can embrace the past and future of evolution so as to contemplate, measure and fulfil them.

In the mutual reinforcement of these two still opposed powers, in the conjunction of reason and mysticism, the human spirit is destined, by the very nature

<sup>22</sup> Ibid., p. 281.

of its development, to find the uttermost degree of its penetration with the maximum of its vital force.28

Teilhard outlines several hypotheses about the exact nature of the final convergence of mankind in Omega, and ends with these humble words:

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 rising 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.

In this arrangement of values I may have gone astray at many points. It is up to others to try to do better. My one hope is that I have made the reader feel both the reality, difficulty, and urgency of the problem and, at the same time, the scale and the form which the solution cannot escape.<sup>24</sup>

### THE CHRISTIAN PHENOMENON

In an Epilogue, Teilhard, so to speak, applies the theme of his book to Christianity, and Christianity to the theme.

Omega is an actuality; it should give evidence of actually working on us. Hence the importance of the Christian phenomenon. Christianity is grounded in a belief in a personal God and in its own universalism. God unifies the world by uniting it organically with Himself. Christ, through the Incarnation, becomes the heart of all matter and all psychism; He subdues, purifies, directs, and superanimates the general ascent of consciousness into which He has inserted Himself. Without using the technical term, Teilhard is here very conscious of the Mystical Body. When He has gathered and transformed everything, He will rejoin the divine focus which He never left. Then, indeed, God shall be all in all, as St. Paul says. Here indeed is the pleroma.

Christianity has existence value, quantitatively shown in the vast radius of its action; qualitatively through the introduction of a specifically new state of consciousness, Christian love.

Although an ancient religion, Christianity not only withstands the shock of the new world but shows a tremendous power of growth. As a matter of fact, this growth will be all the more vigorous precisely because new discoveries lend themselves to new perspectives of the Incarnation. And only Christianity satisfies the demands of a personalizing universe and a convergent evolution.

22 Ibid., pp. 284-85. 24 Ibid., pp. 289-90.

### THE PROBLEM OF EVIL

After a newly written summary of the book, a final appendix is entitled "Some Remarks on the Place and Part of Evil in a World in Evolution."

People may wonder why Teilhard has seemed naively optimistic throughout the book and has not mentioned pain or wrong. This is because he wanted to emphasize the positive, and felt that evil was a phenomenon familiar to all. But the theme of evil runs all through the system. Teilhard distinguishes four principal categories of evil: evil of disorder and failure, evil of decomposition, evil of solitude and anxiety, and evil of growth.

Teilhard asks whether, in addition to these "normal" evils, there does not seem to be an excess of evil, due perhaps to the extraordinary effect of some catastrophe or primordial deviation. He leaves the answer to theology, which operates on a plane above that of his book, but ends with the following sentence: "In one manner or the other it still remains true that, even in the view of the mere biologist, the human epic resembles nothing so much as a way of the Cross." 25

### NEGATIVE CRITICISMS

Thus we have completed a summary, a very bald summary, of *The Phenomenon of Man*. There is here none of the poetic prose of the author, none of his personality. However, the reader is no doubt aware of the vast sweep of the book, and of the originality of its approach. We have space for a brief summary of the principal negative criticisms which have been or could be leveled against the work.<sup>26</sup>

- 1) Imprecision of language is a charge one often reads. Words such as "soul," "spirit," "conscience" ("consciousness" in the English), and "thought" are not defined and often seem to mean different things. I am not utterly sympathetic with this criticism; but then, it may be that I think I know what the author means, and others may disagree with me. The reader trained in Scholastic ways has, of course, a large vocabulary of accurately defined words and a traditional way of applying them, and may feel that Teilhard does not adhere to this manner. But this is certainly not the most important criticism.
- 2) Teilhard's evolutionism may be considered excessive. Although written before the appearance of the Encyclical *Humani generis*, some may feel that the published edition should have been brought into line with the caution of Pope Pius XII against considering human evolution as absolutely proven.<sup>27</sup>

<sup>25</sup> Ibid., p. 311.

<sup>&</sup>lt;sup>26</sup> Divinitas 3, fasc. 2 (April, 1959), is devoted to a series of articles on the doctrine of Teilhard, containing most of the possible objections.

<sup>&</sup>lt;sup>27</sup> Cf. AAS 42 (1950) 575-76.

However, if the author is using evolution as a scientific theory, he is as aware as his scientific readers would be that there is no such thing as "the last word" in science. Again, to use evolution as a dimension of thought, as a theoretical method, is not, it seems to me, against the spirit of those open discussions allowed to experts by the Pope.

That evolution, in the hands of Teilhard, runs the danger of directly leading to monism and pantheism, is a criticism with which I certainly do not agree. If there is anything clear in the book, it is the fact that Teilhard is against pantheism, and equally against the submergence of the individual in anything collective or monistic.

- 3) There have been those who have objected to Teilhard's panpsychism, especially when extended to the atoms. Some simply do not agree with the univocal attributing of some sort of consciousness to inert matter; some wonder whether this whole treatment does not lead to an underrating of the human soul. I think this question may be left to the scrutiny and discussion of the philosophers. In the meantime, I am not disturbed by an idea which we have partially discussed previously in this paper.
- 4) The transition from animal to man is so treated, according to some critics, that it is easily misunderstood, and leaves the impression that this portion of evolution is no different from any other, thus eliminating the creation of a spiritual soul in man. It is true that Teilhard is technically correct, these critics admit, in positing the further doctrinal possibilities in a footnote, avowing that he is staying on the phenomenological level, whereas philosophy and theology on their levels could have more to add. I do not think that Teilhard can be misunderstood by the intelligent and reflective reader. However, I grant that the danger of being misunderstood is there. And this leads me to the final two criticisms I shall discuss; these two I consider really serious.
- 5) In his appendix on the problem of evil, Teilhard treats for the most part only of those kinds of evil which are intrinsic to a process of evolution, barely mentioning (and this gives rise to another covering footnote about the theology of the situation) human sin. Certainly sin is a prominent feature of the current human phenomenon. We shall broaden the scope of that remark in the next paragraph.
- 6) The broadest and most serious objection to any phase of the book is made by G. Bosio and L. Cognet<sup>28</sup> among others. This objection is to the
- <sup>28</sup> Cf. G. Bosio, S.J., "Il fenomeno umano nell'ipotesi dell'evoluzione integrale," Civiltà cattolica 106 (1955) 622 ff.; reprinted in L'Osservatore romano, Dec. 23, 1955, and (in French) in Documentation catholique, Jan. 22, 1956. Louis Cognet, Le Père Teilhard de

lack of treatment of the supernatural, especially in terms of the redemption, but also with reference to revelation in general. Christ became incarnate not only as a model, a focus, a manifestation of Omega, but specifically as a Redeemer. The great drama of God's dealing with mankind includes man's turning away from God by sin, the utterly gratuitous revelation, Incarnation, and redemption, and the granting of grace. I do not think we can adduce Teilhard's purpose and audience as an excuse for leaving all this out, especially when he writes his epilogue on "The Christian Phenomenon." If we are to include Christianity among the facts of the universe upon which we can turn a phenomenological scrutiny, these supernatural elements are of the essence of the Christian phenomenon.

### FINAL WORD

Even some of the severest critics have acknowledged the genius exhibited in this book, its vast scope, and the noble courage of the author in attempting a synthesis of science and faith. Perhaps the author did not succeed in being a twentieth-century Aquinas, but no one else has come so close to achieving this enviable position. The very least we can say is that *The Phenomenon of Man* is a powerful incentive for us to rethink our ideas about the universe, visible and invisible. As F. Russo has well said: "It is impossible to imagine how anyone could continue to teach cosmology without making generous allowance for the views of the author of *The Phenomenon of Man*." 29

Let us hope that many Catholics will be stimulated by the work of Teilhard to rethink the relationships between Christianity and evolution, under the general rubric of Christianity and the modern world in which it lives. These Catholics should not only be Catholic scientists but also Catholic philosophers, dogmatic theologians, Scripture scholars, and writers on the spiritual life. For evolution can and should be a source of insight and of spiritual motivation, a source of greater love of both God and man, as well as a necessary adaptation to the world in which we live.

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Chardin et la pensée contemporaine (Paris, 1952): this critique is of the duplicated copies of Teilhard's works; the author made some changes for the published editions.

<sup>29</sup> François Russo, S.J., "The Phenomenon of Man," America 103 (1960) 188.