



# WHITEHEAD, COSMOLOGY AND CIVILIZATION

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I had the privilege of being involved in the creation of the International Process Network (IPN) and hold the honorary title of Founding Executive Director. I mention this because of what I intend in giving this paper. That is to assist in developing the civilizational role of IPN, of which, in a sense, every person who is attending this 7<sup>th</sup> International Whitehead Conference in Bangalore is a part.

When we brought the International Process Network into being, we were self-conscious that it had a special relationship to Alfred North Whitehead, but we were equally self-conscious that our concern was not Whitehead as such, but rather the promotion of process-relational philosophies as an imperative for our time. In what I consider to be the most important single statement in the organizational documents of IPN, we wrote: "‘Process’ as used in these Bylaws refers to process-relational philosophies that have creativity, organic change over time, subjectivity and interdependence as fundamental aspects of their understandings. Such philosophies include, and are not limited to, those based on the work of Alfred North Whitehead."<sup>1</sup>

I have always believed the spread of process-relational philosophies is of civilizational importance, but have not taken the time to put my thoughts on this in writing. I would like to do this now by way of an extended reflection on a single sentence from Whitehead’s *Adventures of Ideas*: "In each age of the world distinguished by high activity there will be found at its culmination, and among the agencies leading to that culmination, some profound cosmological outlook, implicitly accepted; impressing its own type upon the current springs of action."<sup>2</sup>

My central argument is that Whitehead offers a new cosmology sufficient to inspire and guide post-modern civilization. It is a new cosmology in that it is grounded in contemporary, post-Newtonian science and it contains elements that are novel in the history of philosophy. Yet, it is also an old cosmology in that it is rooted in the earliest intuitions of humans on how the cosmos functions and is grounded in process-relational philosophical traditions East and West that go back thousands of years. Only because Whitehead's work advances an understanding of cosmology that refutes and is meant to supersede the substance-mechanical cosmology of modernity (now the "old cosmology") will I call Whitehead's cosmology the "new cosmology," and only because I develop this new cosmology in the context of Whitehead's thought will I call it Whitehead's cosmology. For, if it truly is an adequate cosmology for post-modernity, it is neither new nor Whiteheadian. It is simply the best we can do to describe the way the universe functions, has functioned and will always function, and it will find support in a variety of process-relational philosophies old and new.

I will develop my argument by opening with a general statement on the importance of cosmology and how understanding Whitehead's work as cosmology opens the door to understanding the importance of Whitehead's thought to post-modern civilization. Then I will turn to the work in which Whitehead provided his most complete discussion of civilization, *Adventures of Ideas*, and cover Whitehead's understanding of how ideas affect the dynamics of civilization, science and cosmology in modern thought, Whitehead's cosmology, and the values derived from Whitehead's cosmology, in particular, of truth, beauty, adventure and peace. The final section of the paper concerns the International Process Network and the transformation of civilization.

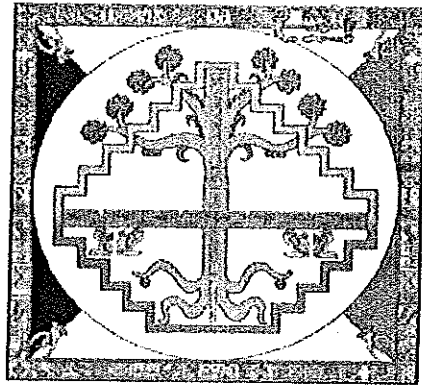
## The Importance of Cosmology

Let us begin with the importance of cosmology and Whitehead's work as cosmology. In the contemporary mind, I would venture, cosmology means something old on which ancient civilizations were grounded—various peoples had their myths of creation and of how humans came to be. They had their understanding of the forces of the universe and the meaning of the regularities of seasons, winds, mountains and stars that surrounded them. For example, in Mayan civilization, the universe was viewed as the *Yakche* or "World Tree."

The sacred tree supported the sky with its branches and its roots residing in the underworld. Mayans believed the sun shone during the day and at night rested in the underworld. Further, Mayan cosmology divided Earth into four directions –

east, west, south and north (as represented in the four directions of the accompanying symbol).<sup>3</sup>

And if, in the contemporary mind, cosmology doesn't mean something old, I would venture it means physical cosmology—the work of scientists in investigating the structure and dynamics of the universe and the description of the universe as given by such scientists.<sup>4</sup>



Neither something that is antiquated, nor something limited to the investigations of modern science would lead Whitehead to write "In each age of the world distinguished by high activity there will be found at its culmination, and among the agencies leading to that culmination, some profound cosmological outlook, implicitly accepted, impressing its own type upon the current springs of action." He must have had something different in mind with the term "cosmology," something of essential importance.

We might ask "Of essential importance to what?" The answer to that lies in Whitehead's statement of what his subject was in *Adventures of Ideas*. He wrote, "The intellectual agencies involved in the modification of epochs are the proper subject of this book."<sup>5</sup> It is in this context that Whitehead understood cosmology, which he implicitly defined as "the most general ideas at the base of the whole development of science [—the] concepts of Speculation and Scholarship, and the various notions of the Order of Nature, and of Nature itself."<sup>6</sup> Given the way Whitehead employed the term cosmology in *Adventures of Ideas*, we can understand "science" as used in the foregoing definition very broadly as meaning knowledge of the world and ourselves generally.

The cosmology of a particular epoch, though profound in its influence, is

[...] only partly expressed, and the details of such expression issue into derivative specialized questions of violent controversy. The intellectual strife of an age is mainly concerned with these latter questions of secondary generality which conceal a general agreement upon first principles almost too obvious to need expression, and almost too general to be capable of expression. In each period there is a general form of the forms of thought; and, like the air we breathe, such a form is so translucent, and so pervading,

and so seemingly necessary, that only by extreme effort can we become aware of it.<sup>7</sup>

Whitehead's whole philosophical task, one might say, was to make people aware of the inadequacy of the cosmology of the epoch or age that we call modernity, the period beginning in the West in the 16<sup>th</sup> century and extending to the present, and of a more adequate cosmology emerging out of both contemporary science and culture (including philosophy and religion) to inspire and guide the postmodern world. Thus he writes in *Science and the Modern World*:

Philosophy, in one of its functions, is the critic of cosmologies. It is its function to harmonize, re-fashion, and justify divergent intuitions as to the nature of things. It has to insist on the scrutiny of the ultimate ideas, and on the retention of the whole of the evidence in shaping our cosmological scheme. Its business is to render explicit, and—so far as may be—efficient, a process which otherwise is unconsciously performed without rational tests.<sup>8</sup>

And he gives to his magnum opus, *Process and Reality*, the subtitle *An Essay in Cosmology*.<sup>9</sup>

## How Ideas Influence the Dynamics of History

If it is true that when there is high activity and achievement in civilization a driving force is "some profound cosmological outlook," then ideas must have effective power to bring about change. In *Adventures of Ideas* Whitehead undertakes to show that this is so by "examin[ing] critically the sort of history which ideas can have in the life of humanity."<sup>10</sup>

The fragment of human history on which he concentrates is the "transmission of civilization from the Near East to Western Europe"<sup>11</sup> with the intent to "demonstrate those factors in Western civilization which jointly constitute a new element in the history of culture."<sup>12</sup> The purpose of this is to develop propositions based on this evidence of how change happened with the ultimate goal of discerning "the impulses which are driving [humankind] forward."<sup>13</sup>

His general theme in the "Sociological" section of *Adventures of Ideas*, Chapters I-VI, is how Hebrew and Greek thought over thousands of years gave rise to sociological expressions of freedom and democracy. In the early stages of civilization, humans acted out of unreflected experiences and beliefs without any special valuation of human beings.<sup>14</sup> There was a gradual emergence of efforts to make intelligible the loveliness and power of nature and the experiences of individuals and

communities.<sup>15</sup> From "noble discontent" there arose a faculty of criticism. And for European thought in particular, "the effective expression of this critical discontent, which is the gadfly of civilization, [was] Hebrew and Greek thought."<sup>16</sup>

As classical civilization arose in the West, it was a given there would be a large slave population. In the Chapter on "The Human Soul," Whitehead considers how it was that freedom and equality became presuppositions of modern thought when the opposite had been true in ancient thought. He observes,

[Great ideas] start as speculative suggestions in the minds of a small, gifted group. They acquire a limited application to human life at the hands of various sets of leaders . . . . A whole literature arises which explains how inspiring is the general idea, and how slight its effect [would be if fully introduced.] Some transition has been produced by the agency of the new idea. But on the whole the social system has been inoculated against the full infection of the new principle.<sup>17</sup>

The ideas are a danger to the existing order. Further, how they are to be introduced without "destroying social organization and the civilization which depends on it" or how to remove the evil identified "without the introduction of worse evils of some other type" may not be clear.<sup>18</sup> Thus there is resistance, and implementation of the ideas may await a time of changed conditions that make introduction of the ideas easier. Those who introduce the idea may not be superior to those who tried to introduce the idea when the time was not right. All the while the "ideal in the background is promoting the gradual growth of the requisite communal customs, adequate to sustain the load of its exemplification."<sup>19</sup>

In the history of the West, the general ideal was held by, among other things, the Platonic doctrine of the human soul, which Christianity assimilated,<sup>20</sup> and by the "impracticable ethics" of Christianity.<sup>21</sup> Religious ideas of the Middle Ages acted as "a driving force toward the grander intuitions" (while the church as an institution adapted itself to the social situation). In the 18<sup>th</sup> century came the Enlightenment—the "Age of Reason and the Rights of Man," which "remade the presuppositions of the civilized world." In 1808 the British abolished the slave trade, and in 1833 came the purchase and freeing of all slaves in the British dominions at a cost of a very substantial sum to the British treasury. This at last was a foretaste of final triumph, "a wavering alliance of philosophy, law and religion."<sup>22</sup>

In a partial summing up of the progression by which ideas bring about social transformation, Whitehead writes:

The history of ideas is a history of mistakes. But through all mistakes it is also the history of the gradual purification of conduct. When there is progress in the development of favourable order, we find conduct protected from relapse into brutalization by the increasing agency of ideas consciously entertained. In this way Plato is justified in his saying, The creation of the world—that is to say, the world of civilized order—is the victory of persuasion over force.<sup>23</sup>

## Cosmology and Science in Modern Thought

In the chapters of *Adventures of Ideas* on how great ideas have been carried in Western Civilization, Whitehead includes a critique of modern thought. For two thousand years "Plato's philosophic theories and Christian intuitions" informed the soul of Western man. In the modern period, physical science and individualism became preeminent. Metaphysics was abandoned and philosophy developed around the narrow range of concerns of positivism, utilitarianism, and empiricism. Of modern scholarship and modern science he writes:

They canalize thought and observation within predetermined limits, based upon inadequate metaphysical assumptions dogmatically assumed. The modern assumptions differ from older assumptions, not wholly for the better. They exclude from rationalistic thought more of the final values of existence. The intimate timidity of professionalized scholarship circumscribes reason by reducing its topics to triviality, for example, to base *sensa* and to tautologies. It then frees itself from criticism by dogmatically handing over the remainder of experience to an animal faith or a religious mysticism, incapable of rationalization.<sup>24</sup>

Whitehead wholly approves of science while upholding the value of philosophy: "Science and Philosophy are merely different aspects of one great enterprise of the human mind."<sup>25</sup> "Science and Philosophy mutually criticize each other, and provide imaginative material for each other."<sup>26</sup> For 1800 years after Aristotle, science was dominated by philosophical conception of the universe with insufficient attention to observation. Modern science focuses on observation, but with insufficient attention to philosophy. Science observes "particular occurrences . . . issuing in wide classifications of things according to their modes of functioning, in other words according to the laws of nature which they illustrate. [In contrast,] the emphasis of philosophy is upon generalizations which almost fail to classify by reason of their universal application."<sup>27</sup> Modern science fails to recognize the "grave weakness in the observational order. Observational discrimination is not dictated by the impartial

facts. It selects and discards, and what it retains is rearranged in a subjective order of prominence."<sup>28</sup>

Without philosophical reflection, science is unaware of its own presuppositions.<sup>29</sup> Philosophy "seeks those generalities which characterize the complete reality of fact, and apart from which any fact must sink into an abstraction. But science makes the abstraction, and is content to understand the complete fact in respect to only some of its essential aspects."<sup>30</sup> Philosophy broadens the inquiry:

[Philosophic systems] are the way in which the human spirit cultivates its deeper intuitions. Such systems give life and motion to detached thoughts. Apart from these efforts at coordination, detached thoughts would flash out in idle moments, illuminate a passing phase of reflection, and would then perish and be forgotten. The scope of an intuition can only be defined by its coordination with other notions of equal generality.<sup>31</sup>

The difficulty with much of modern philosophy is that it has accepted the same abstractions of what constitutes a "fact" as modern science and seeks to describe reality through such means as empiricism, utilitarianism, substantial objects, measurable qualities and logic. Whitehead calls for a nondogmatic return of philosophy to the task at its Hellenistic roots, that of describing a complete fact. This would entail at least covering these elements of Plato's philosophy: "The Ideas, The Physical Elements, The Psyche, The Eros, The Harmony, The Mathematical Relations, The Receptacle."<sup>32</sup>

## Whitehead's Cosmology

In the "Philosophical" section of *Adventures of Ideas*, chapters XI-XV, Whitehead seeks to strengthen the philosophical base of civilization. This section is a further refinement of the cosmology he had extensively presented in *Process and Reality*. As a cosmology, it differs from what is ordinarily assumed to be a cosmology, which is a description of the large-scale structures of the universe, as occurs in the case of the Mayan cosmology briefly described earlier in this paper and in the physical cosmology presented by today's astronomers with their descriptions of stars and galaxies and the evolution of the universe as a whole. Instead, Whitehead's cosmology begins with the smallest units of existence, the actual occasions, or drops of experience, of which the universe is composed.

In his cosmology, each of these drops of experience comes into being through the influence of factors internal and external, and becomes a datum for future occasions.

His cosmology is “atomic” in the sense that the universe is composed of minute events that make up all there is, but not in the sense that each atom is a substance existing in its own right and having only external relations with other atoms. The existence of each event is its becoming (in Whitehead’s technical language, its “concrecence”), and only those occasions in a state of becoming are in existence.<sup>33</sup> Further, each event has a subjective aspect and is possessed of and possessed by creativity, which is to say each event is a subject, not an object.

With this understanding of the elemental-event nature of existence, Whitehead proceeds to address outstanding problems in the modern Western philosophy inaugurated by Descartes, Locke, and Hume. In Chapter XI on “Objects and Subjects,” Whitehead challenges the basic structure of knowledge developed in this philosophy where the passive knower receives bare *sensa* and assimilates it. Whitehead says conscious knowledge, the structure of experience examined by these modern philosophies, is a high abstraction from the actual experience involved. The modern philosophers assumed only those factors that were clear and distinct in conscious experience could be examined, while Whitehead, claiming to follow Plato, directly challenged this assumption.

In asserting that “the basis of experience is emotional” and that “the basic fact is the rise of an affective tone originating from things whose relevance is given,”<sup>34</sup> Whitehead set out on his own Copernican revolution of philosophy. With his understandings, in contrast to the modern philosophy, all perception is not mediated by our bodily sense organs, all percepts are not bare sense, our experience of a social world is not wholly derivative from this perception, and our emotional and purposive experience is not wholly a reflective reaction derived from the original perception.<sup>35</sup> And, further, this is true not only for humans but in some sense for the whole universe of subjects. The universe in Whitehead comes alive with *eros* and feeling. Whitehead is able to account for the immense creativity of the universe and those things we experience as permanent or enduring, and also for the unity of the universe and its dazzling diversity.<sup>36</sup>

## Civilizational Values Derived from Whitehead’s Cosmology

In the section entitled “Civilizational,” Chapters XVI-XX, *Adventures of Ideas* builds to its final conclusion. If we were to think of this book as a symphony, this last section would be the grand finale. In it Whitehead presents the civilizational values of Truth, Beauty, Adventure and Peace.



## Value in Whitehead

I have heard philosophers criticize Whitehead's work on the ground that he lacks a strong value theory. They recognize Whitehead's contributions as a metaphysician, but regard him as having only marginal relevance in moral philosophy. In contrast to this viewpoint, I believe that Whitehead offers a strong value theory. It stops short of rules for ethical decision-making, but it offers a profound vision of the socially good and an incisive analysis of the origins and ground of ethical decision-making.

At its broadest, the Good is the intensification of experience and complex contrasts of harmony. This may best be understood by analogy to art (including visual and performing arts and music) as it expresses beauty. The origin of morality is found in emotion.

## Of Truth

In experience, especially in the experience of complex human beings, appearance may differ from reality. For Whitehead, "Reality is just itself, and it is nonsense to ask whether it be true or false. Truth is the conformation of Appearance to Reality. This conformation may be more or less, also direct or indirect. Thus Truth is a generic quality with a variety of degrees and modes."<sup>37</sup> Truth is the experience where one exclaims, "I see."

As with all activity in Whitehead, Truth is more analogous to a feeling than a machine such as a computer. Truth is closer to "zest" than "objective search for knowledge." To understand why this is so, one must understand Whitehead's "reason for everything,"<sup>38</sup> the concrescence of actual entities. Here, in brief, are the phases of an actual occasion. The data for the occasion is the past. (We might say the objective past, but the objects of the past include the feeling tones and ideas as well as what in ordinary speech we would think of as the physical characteristics of the past.) The new occasion arises out of creativity with something like a feeling tone for the relevant data of the past for this new occasion, and also with a feeling of some unrealized potential.<sup>39</sup> The concrescence of the actual occasion is its coming together into a final form when it perishes and becomes a datum for subsequent occasions. Only actual occasions "exist" and their existence is their becoming.<sup>40</sup>

The concrescence of an actual occasion involves numerous "prehensions" whereby the data is assimilated into a final state. This concrescence isn't mere collection, but a "creative advance into novelty."<sup>41</sup> The concrescence involves numerous phases

and involves both physical prehensions of past data and conceptual prehensions of ideas. Ideas, here, mean forms of definiteness or potentials and include not only ideas as we might ordinarily understand them, but also green-ness and the affective tone associated with it. The urge to form subjective experience, Whitehead calls *appetition*.<sup>42</sup> In its final phase, satisfaction, the actual occasion becomes "the 'superject' of its own activity of self-creation."<sup>43</sup>

"The reasons for things are always to be found in the composite nature of definite actual entities."<sup>44</sup> Actual occasions are part of multiplicities of events, but there "is no emergent evolution concerned with a multiplicity, so that every statement about a multiplicity is a disjunctive statement about its individual members."<sup>45</sup> Even the activity of complex societies (ordered groupings of occasions) is to be referred to the concrescences of the actual entities that compose the society.<sup>46</sup> And yet the complex societies have capacities that no individual occasion has. Thus, the functioning of high-grade mentality, consciousness, in humans is only possible in a society of occasions. But the nature of that consciousness is derivative from the character of actual occasions.<sup>47</sup> These drops of experience are composed of prehensions, which we may analogize to feelings. In a sense, the universe is then composed of feelings, intimate connections.

Truth in Whitehead becomes conformation of feeling, the conformation of Appearance to Reality. The "subject has a 'concern' for the object. And the 'concern' at once places the object as a component in the experience of the subject, with an affective tone drawn from this object and directed towards it."<sup>48</sup> Whitehead notes with approval that for Plato there is no "notion of mere knowledge that is to say, of mere understanding. [Rather] the entertainment of ideas is intrinsically associated with an inward ferment, an activity of subjective feeling, which is at once immediate enjoyment, and also an appetition which melts into action."<sup>49</sup> And further, for Plato ideas would be frozen without a living intelligence. "Such a living intelligence with its 'gaze fixed upon ideas' was what Plato termed a *Psyche*, a word we can translate as 'soul.' . . . He conceives of a basic *Psyche* whose active grasp of ideas conditions impartially the whole process of the Universe."<sup>50</sup> These things would be true for Whitehead as well. For him, "the process of creation [the pulling together of prehensions in a novel unity that occurs in concrescence] is the form of unity of the Universe."<sup>51</sup>

## Of Beauty

In the sensationalist theory of perception of Locke and Hume, *sensa* are passively received and "for no obvious reason [acquire] an affective tone."<sup>52</sup> For Whitehead the opposite is the true explanation—the main characteristic of the *sensa* "is their

enormous emotional significance."<sup>53</sup> The true doctrine of sense perception, according to Whitehead, is that the *sensa* carry an affective tone, which is prehended by the concreting subject. The qualities in the *sensa* or objects are shared by the subject. "Thus art is possible. For not only can the objects be prescribed, but also the corresponding affective tones of their prehensions. This is the aesthetic experience so far as it is based upon sense-perception."<sup>54</sup>

These qualities in the object so perceived are not qualities that adhere to an object, but are of the nature of the object. The foliage in the spring is "greening" and "we enjoy the green foliage of the spring greenly: we enjoy the sunset with an emotional pattern including among its elements the colours and the contrasts of the vision."<sup>55</sup>

Whitehead writes, "The teleology of the Universe is directed to the production of Beauty."<sup>56</sup> A word needs to be said about teleology. As discussed above, each actual occasion is in ferment, seeking a final resolution or satisfaction of its prehensions. The occasion begins with a subjective aim, some unrealized potential relevant to the situation in which it arises. There is an element of self-creation or freedom in the occasion, one not to be explained but only to be observed. The occasion, while much is given to it, is its own creation. This reaching to achieve some new realization of form, to achieve the unrealized potential, is its teleology.

What we observe about ourselves as we seek to bring order and harmony into our lives, to achieve patterned contrasts and intense feeling, is for Whitehead reflected in the universe, which is nothing but actual occasions, albeit occasions in complex societies and relations. Just as a nation is composed of individual citizens, the nation with all of its complex form and function is something more. The nation reflects itself back to the individual and the individual to the nation. So too the universe is something more, the grandest society. Each occasion reflects itself to the universe and the universe to the occasion.

"Beauty is the internal conformation of the various items of experience with each other, for the production of maximum effectiveness. Beauty thus concerns the inner-relations of the various components of Reality, and also the inter-relations of the various components of Appearance, and also the relations of Appearance to Reality."<sup>57</sup> Even when we appropriate to ourselves tragedy in poignant realization, there is beauty. "Thus any part of experience can be beautiful."<sup>58</sup> Beauty aims at harmonization and intensification of feeling. "Thus, in its broadest sense, art is civilization. For civilization is nothing other than the unremitting aim at the major perfections of harmony."<sup>59</sup>

"Truth and Beauty are the great regulative properties in virtue of which Appearance justifies itself to the immediate decision of the experient subject."<sup>60</sup> They are reflected in human experience in science and in art.

In them the finite consciousness of [humankind] is appropriating as its own the infinite fecundity of nature. In this movement of the human spirit types of institutions and types of professions are evolved. Churches and Rituals, Monasteries with their dedicated lives, Universities with their search for knowledge, Medicine, Law, methods of Trade—they all represent that aim at civilization, whereby the conscious experience of [humankind] preserves for its use the sources of Harmony.<sup>61</sup>

## Of Adventure

Civilization is not static. There are only two choices for civilization, according to Whitehead, "Advance or Decadence . . . The pure conservative is fighting against the essence of the universe."<sup>62</sup> Life is process, Eros urges us to ideal perfection,<sup>63</sup> though there is no perfection of all perfections. Each new perfection drives us on to the next perfection.<sup>64</sup> This is the soul or psyche in connection with the divine. "We must conceive the Divine Eros as the active entertainment of all ideals, with the urge to their finite realization, each in its due season. Thus a process must be inherent in God's nature, whereby his infinity is acquiring realization."<sup>65</sup>

Custom is necessary, but a great civilization unleashes imaginative force. Staleness must not dominate, for "repetition produces a gradual lowering of vivid appreciation. Convention dominates. A learned orthodoxy suppresses adventure."<sup>66</sup> A civilization may be exhausted when the forces of creative imagination have not been exhausted. Thought running ahead of realization then may make transition to a new form of civilization possible. Sometimes reforms of civilizations are within relatively safe limits. These are the ripples of change even in ordinary times. But there are times when the "leap of imagination reaches beyond the safe limits of the epoch, and beyond the safe limits of learned rules of taste. It then produces the dislocations and confusions marking the advent of new ideals for civilized effort."<sup>67</sup>

The Harmony at which civilization aims is not passive, shallow, qualitative Harmony. It is the harmonization of Appearance to Reality, of the will to perfection. It is the energizing of the Soul, through complex contrasts of feeling, to Adventurous action.

## Of Peace

I cannot help but write at the beginning of this discussion of Whitehead's notion of peace, that he writes of the kind of unspeakable peace given in Scripture, "the peace that passeth understanding." He writes, "[By] Peace, I am not referring to political relations. I mean a quality of mind steady in its reliance that fine action is

treasured in the nature of things."<sup>68</sup> Of such a peace, let us listen to Whitehead's poetry:

[Peace] is a positive feeling which crowns the 'life and motion' of the soul. It is hard to define and difficult to speak of. It is not a hope for the future, nor is it an interest in present details. It is a broadening of feeling due to the emergence of some deep metaphysical insight, un verbalized and yet momentous in its coordination of values. Its first effect is the removal of the stress of acquisitive feeling arising from the soul's preoccupation with itself. Thus Peaces carries with it a surpassing of personality. There is an inversion of relative values. It is primarily a trust in the efficacy of Beauty. It is a sense that fineness of achievement is as it were a key unlocking treasures that the narrow nature of things would keep remote. There is thus involved a grasp of infinitude, an appeal beyond boundaries. Its emotional effect is the subsidence of turbulence which inhibits. More accurately, it preserves the springs of energy, and at the same time masters them for the avoidance of paralyzing distractions. The trust in the self-justification of Beauty introduces faith, where reason fails to reveal the details.

The experience of Peace is largely beyond the control of purpose. It comes as a gift. The deliberate aim at Peace very easily passes into its bastard substitute, Anæsthesia. In other words in the place of a quality of 'life and motion', there is substituted their destruction.<sup>69</sup>

Thus, Whitehead puts forth his definition of civilization: It is a "society exhibiting the five qualities of Trust, Beauty, Adventure, Art, Peace."<sup>70</sup>

## The International Process Network and the Transformation of Civilization

Aren't we a civilization that is exhausted . . . the ideas that vitalized the West now globalized, drained of their meanings . . . the economic human desiring only pleasure and avoiding all pain, now *de--souled*? How far is the Appearance of the modern technological society from Reality. How often have we sought Anæsthesia rather than Peace.

When we began the International Process Network, there was no narrow intention to provide a society for "Whiteheadian scholars." The first act taken by IPN was the adoption of a "Declaration in Support of the Earth Charter Initiative." In it we endorsed

[...] the expression of our global situation as stated in the Preamble of the Earth Charter: We stand at a critical moment in Earth's history, when humanity must choose its future. Humanity is part of a vast evolving universe. Earth is our home, a one-time endowment in the life of the universe. The well-being of humanity and all life depends upon preserving a healthy biosphere with all its ecological systems. . . .

Through a long participatory process, a new Earth Charter has been proposed for promoting change for a sustainable future. We give our most sincere and profound support for this new Earth Charter.<sup>71</sup> We endorse its principles and pledge ourselves to teaching them and living our lives consistently with them.

In addition, we commit ourselves to a philosophical critique of the values and understandings that have led to our present situation. We pledge ourselves to the development of an integrative understanding of the world that undergirds and supports just and sustainable human communities in an ecologically responsible context. We are committed to affirming and developing supportive philosophies and actions for the realization of the goals of the Earth Charter. We believe the adequacy of philosophy is reflected in its capacity for enabling humanity to respond to the deepest spontaneities and authenticities in the universe as they are made known to humanity in experience and thought. We find a meaningful resource for this endeavor to be the process philosophy of Alfred North Whitehead, but we include in this quest all relational philosophies and worldviews that enable humanity to live out the principles of the Earth Charter, opting for life in an integral community of all beings.<sup>72</sup>

This was a noble declaration indeed, but how will we do this?

What have we learned from Whitehead's *Adventures of Ideas*? "In each age of the world distinguished by high activity there will be found at its culmination and among the agencies leading to that culmination, some profound cosmological outlook, implicitly accepted, impressing its own type upon the current springs of action." Our gift is that we have been grasped by a new cosmology, one that can fuel the fires of civilizational transformation.

Thomas Berry and Brian Swimme ask these cosmological questions in *The Universe Story*:

Given the existence of mountain wildflowers, what is the nature of the Flaring Forth at the beginning of time? Given Mozart's symphonies, what is the

nature of the dynamics of the universe that could have led to such structure? Given the care with which a mother lark will nurture and protect her young, what is the universe made of? Given the direct influence humans have on the functioning of the planet, what are the long-range consequences human activity will have on cosmic evolution?<sup>73</sup>

In Whitehead we have a cosmology that accounts for symphonies and the nurture of a mother lark, for human participation in cosmic evolution. We have an understanding that allows us anew to appropriate the infinite fecundity of nature—the universe as one, yet infinitely diverse and intimately connected.

And what have we learned from Whitehead's *Adventures of Ideas* about how civilizations change? Ideas have effective power to bring about change. Thought running ahead of realization makes transition to a new form of civilization possible. "[Great ideas] start as speculative suggestions in the minds of small, gifted group. They acquire limited application to human life at the hands of various sets of leaders." We, in this particular moment, have the possibility of being among those leaders to teach and apply a new cosmology.

I see one great danger, however. This is that we, especially those who call themselves Whiteheadians, might ourselves become "a learned orthodoxy suppressing Adventure." Do you not now know nothing could be more foreign to Whitehead's intention? The great fallacy for him was the "dogmatic fallacy."<sup>74</sup> His ideas will gain no currency as leaden concepts, laboriously taught only as an abstract speculative system.

It is Beauty not Truth that is the most important regulative concept. And Beauty is Art. Make the new cosmology a work of Art through poetry, image and story. Look to the work of Thomas Berry and Brian Swimme in *The Universe Story*. They write:

[Both] infinitely patient, slow processes and sudden, cosmic intensifications are required to carry the universe through the unfurling of its material-psyche adventure. . . . The universe is both violent and creative, both destructive and cooperative. . . . Resistance, energy, dreams: these are the sources of all violence. Another way of describing them is to speak of past, present, and future. . . . The universe thrives on the edge of a knife. . . . Every being that thrives does so in a balance of creative tension. . . . The universe is a multilevel web of different communities of beings with ancient and well-established orders of being. . . . Yet the universe brings forth new centers of creativity in this world of established relationships and long-honored traditions. . . . The universe has what can be called a sacrificial dimension.

. . . Life includes in its essence hardships of many kinds. To refuse this, to refuse to accept what might be called legitimate suffering, is to opt for a reduced existence. . . . No intellectual resolution of the conundrum of suffering is possible or even desirable. . . . To eliminate the tension would be to eliminate the beauty."<sup>75</sup>

You will see Whitehead in each of these phrases, yet with Berry and Swimme a cosmology very congenial to Whitehead's has become Art, like the Mayan "World Tree" with which we began.

Those who follow Whitehead must teach the microcosmic world of the actual occasion with each of its phases. Yet we must also teach of the grandeur of societies of occasions and of the grandest of all societies, the universe, and of the Divine Eros impelling us forward. We must realize that civilization is grounded in cosmology. We must not forget that civilization is Truth, Beauty, Adventure, Art and Peace, and if we are to be effective, we must clothe ourselves in these values. Whitehead was about civilization. So we must be too.

## Notes:

1. Amended and Restated Bylaws of the International Process Network, Article I, Section 1.
2. Alfred North Whitehead, *Adventures of Ideas* (1933, 1<sup>st</sup> paperback ed., New York: The Free Press, 1967), 12.
3. Symbol and interpretation of Maya cosmology from Matthijs H.D. van der Wiel, "Maya Cosmology," March 2, 2004, Kapteyn Astronomical Institute, University of Groningen, The Netherlands, <http://www.astro.rug.nl/~wiel/articles/maya.pdf> (accessed December 8, 2008).
4. For example, the dictionary I consulted gave only these two meanings of cosmology: "1. The study of the physical universe considered as a totality of phenomena in time and space. 2. a. The astrophysical study of the history, structure, and constituent dynamics of the universe. b. A specific theory or model of this structure and these dynamics." *The American Heritage Dictionary of the English Language, Third Edition* (Boston, MA: Houghton Mifflin Company, 1992).
5. Alfred North Whitehead, *Adventures of Ideas*, 12.
6. *Ibid.*, 103.
7. *Ibid.*, 12.
8. Alfred North Whitehead, *Science and the Modern World* (1925, 1<sup>st</sup> paperback ed., New York: The Free Press, 1967), vii.
9. Alfred North Whitehead, *Process and Reality: An Essay in Cosmology*, corrected ed., ed. David Ray Griffin and Donald W. Sherburne (New York: The Free Press, 1978) (hereafter "PR").



10. Alfred North Whitehead, *Adventures of Ideas*, 3 (emphasis in original).
11. *Ibid.*, 8.
12. *Ibid.*
13. *Ibid.*
14. *Ibid.*, 10.
15. *Ibid.*, 11.
16. *Ibid.*
17. *Ibid.*, 15.
18. *Ibid.*, 20.
19. *Ibid.*, 22.
20. *Ibid.*, 16.
21. *Ibid.*, 17.
22. *Ibid.*, 19.
23. *Ibid.*, 25.
24. *Ibid.*, 118.
25. *Ibid.*, 140.
26. *Ibid.*, 146.
27. *Ibid.*, 143.
28. *Ibid.*, 155.
29. "No science can be more secure than the unconscious metaphysics which tacitly it presupposes." *Ibid.*, 154.
30. *Ibid.*, 146.
31. Alfred North Whitehead, *Adventures of Ideas*, 144.
32. *Ibid.*, 147.
33. According to Whitehead's ontological principle, "Every condition to which the process of becoming conforms in any particular instance has its reason *either* in the character of some actual entity in the actual world of that concrescence, *or* in the character of the subject which is in process of concrescence. . . . This ontological principle means that actual entities are the only *reasons*; so that to search for a *reason* is to search for one or more actual entities." *PR*, 24. "[A]part from the experience of subjects there is nothing, nothing, nothing, bare nothingness." *Ibid.*, 167.
34. Alfred North Whitehead, *Process and Reality*, 176.

35. See Whitehead's description of the presuppositions of modern sensationalist philosophy at *Adventures of Ideas*, 177-78.
36. In succeeding chapters of the Philosophical section, Whitehead addresses "past, present and future," "the grouping of occasions," appearance and reality," and "philosophic method." The material in each of these chapters is important for understanding the values presented in the final part of *Adventures of Ideas* on "Civilization." Though these chapters will not be discussed directly in this paper, they are very valuable. In understanding the relation between the minute actual entities of the universe and the features of the universe we encounter in our conscious experience, which features are composed of many related occasions, the chapter on "The Groupings of Occasions" is particularly important.
37. Alfred North Whitehead, *Adventures of Ideas*, 241.
38. See footnote 33 above.
39. In *Adventures of Ideas*, Whitehead calls this "Creativity," which is "a factor of activity which is the reason for the origin of that occasion of experience." *AI*, 179. In *Process and Reality*, to my knowledge Whitehead does not give a reason why a new actual occasion arises after an antecedent actual occasion "perishes." He does, however, state that the initial aim derived from the primordial nature of God is the datum from which the self-causation of the actual occasion starts. *PR*, 244. God is the nontemporal actual entity and contains within God a valuation of all the potentials (or eternal objects) of the universe. The initial aim for an actual occasion beginning concrescence is that potential relevant to that occasion. "In this sense God is the principal of concretion." *Ibid.*, 244.
40. Or as Whitehead puts it, for an actual occasion, "Its 'being' is constituted by its 'becoming.'" *Ibid.*, 23.
41. *Ibid.*, 28.
42. Thomas Hosinski, *Stubborn Fact and Creative Advance: An Introduction to the Metaphysics of Alfred North Whitehead* (Lanham, MD: Rowan & Littlefield Publishers, Inc., 1993), 86-87; *Adventures of Ideas*, 32.
43. Ivor LeClerc, *Whitehead's Metaphysics: An Introductory Exposition* (London, George Allen and Unwin Ltd., 1958), 175.
44. Alfred North Whitehead, *Process and Reality*, 19.
45. *Ibid.*, 30.
46. Whitehead illustrates this with the sound produced by an orchestra, which is a composite of the sound of the individual members . . . though different. *Adventures of Ideas*, 213.
47. Alfred North Whitehead, *Process and Reality*, 18.
48. Alfred North Whitehead, *Adventures of Ideas*, 176.
49. *Ibid.*, 148.
50. *Ibid.*, 147.
51. *Ibid.*, 179.
52. *Ibid.*, 215.

53. *Ibid.*
54. *Ibid.*, 216.
55. *Ibid.*, 250-51.
56. *Ibid.*, 265.
57. *Ibid.*, 265.
58. *Ibid.*
59. *Ibid.*, 271
60. *Ibid.*, 241
61. *Ibid.*, 272.
62. *Ibid.*, 274.
63. "We have to ask whether nature does not contain within itself a tendency to be in tune, an Eros urging toward perfection." *Ibid.*, 251.
64. *Ibid.*, 257.
65. *Ibid.*, 277.
66. *Ibid.*, 277.
67. *Ibid.*, 279.
68. *Ibid.*, 274.
69. *Ibid.*, 285.
70. *Ibid.*, 274.
71. For a copy of the Earth Charter, go to [www.earthcharter.org](http://www.earthcharter.org).
72. International Process Network, "Declaration in Support of the Earth Charter Initiative," adopted at the First International Whitehead Summit, Claremont, California, January 6, 2001.
73. Brian Swimme and Thomas Berry, *The Universe Story: From the Primordial Flaring Forth to the Ecozoic Era* (San Francisco: HarperSanFrancisco, 1992), 23.
74. Alfred North Whitehead, *Adventures of Ideas*, 144-45.
75. Swimme and Berry, *The Universe Story*, 51-60.