

Teilhard's Mysticism: The Circle of Presence

(1)

From the new interpretations of the world

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There were moments, indeed, when it seems to me that a sort of universal being was about to take shape suddenly in Nature before my very eyes. (2)

Abstract: In an early essay, Teilhard provides a road map through the intensely mystical environment in which he lived and moved, describing the stages of his mystical growth in terms of five concentric circles. These circles, more properly imaged as loops of a spiral that he revisits throughout his life, provided him with stepping stones into an ever deepening reality, a reality informed as much by the science of his time as by his religious tradition. They plot his growth and development as he sinks ever more deeply into the heart of matter and into the heart of God. This journey began with an awareness of a subtle Presence pervading the atmosphere in which he lived and culminated in the perception of the radiance of a loving, cosmic Person—the God for evolution. In this paper, I trace Teilhard's life journey through the first of these, the Circle of Presence where Teilhard became attuned to the beauty of Earth and his sensitivity to nature opened him to the Divine Presence.

From my perspective as a Catholic scientist, Pierre Teilhard de Chardin has developed one of the most creative approaches to mysticism in modern times. What makes his approach particularly unique is the fact that it was fostered to a remarkable degree by both his love for Earth and his devotion to science, especially the science of evolution. Troubled as a young adult about how to love both God and science with his whole heart, he learned to rely equally on his inner psychological experience, his scientific knowledge, and his religious tradition. He allowed these influences to interact until they produced a view of God and the world that satisfied him.

In an early essay entitled “The Mystical Milieu,” he describes the five stages of his mystical journey into the heart of God as circles that actually form a spiral: the Circle of Presence, the Circle of Consistence, the Circle of Energy, the Circle of Spirit and the Circle of Person. In this paper, I focus on the first of these: the Circle of Presence.

Teilhard's mystical journey began in the Circle of Presence. A nature lover from his youth, he was strongly affected by the lush beauty of the sense world that surrounded him. Something as simple as a song, a sunbeam, a fragrance, or a glance would pierce his heart and heighten his awareness of an unexplainable presence. The aesthetic pleasure that these encounters elicited enveloped him and penetrated to the depths of his soul. Although such moments were fleeting, they set up cosmic vibrations that invaded his being and took possession of him. Such encounters opened him to a new dimension that he yearned to explore. They stirred in him a desire to become one with

the cosmos, to become “immersed in an Ocean of matter.”⁽³⁾ Each encounter fostered in him “an insatiable desire to maintain contact . . . with a sort of universal root of being.”⁽⁴⁾ Apparent from his childhood, Teilhard’s openness to this numinous presence would continue to grow within him in clarity and in depth. This innate ability to lose himself in the numinous would lead him to experience a Divine Presence gleaming at the heart of matter.

Many people are surprised that Teilhard, a scientist who understood so well the physical properties of sound and light, would give himself over to the lure that these moments can provide. Yet, the pleasure that came to him from contact with the physical world stimulated his mystical life and provided him with images capable of describing an experience that is otherwise unutterable. Moreover, his strong understanding of physical phenomena served to further amplify his mystical sense.

Teilhard’s love affair with rock, his captivation with its hardness and density, and his overwhelming natural appetite for the solid, the everlasting, and the changeless initiated him into the world of mysticism. So profound was his passion for rock that he eventually chose geology and paleontology as fields of graduate study, fields for which he showed great natural talent. Throughout his life he was ever on the lookout for fossils and unusual specimens of rock, “never without his geologist’s hammer, his magnifying glass, and his notebook.” Years of careful collecting found him “gifted with very sharp sight.” In fact, his friends claim that “his quick eye would catch any chipped or chiselled stone that lay on the ground.”⁽⁵⁾ This sensitivity to the shape of the arrowhead and the print of the fossil kept him always alert to the beauty and texture of the landscape.⁽⁶⁾

Field work in geology and paleontology brought Teilhard great satisfaction. His professional activity entailed observing geological formations and searching for fossils and primitive tools to discover clues about how Earth’s rocky surface evolved and how the variety of life forms emerged on Earth. These pursuits satisfied his need for prolonged contact with Earth. They were his way of touching what he sensed was animating and directing everything.⁽⁷⁾ The sparks of Divine Presence that he discerned within Earth’s rocky layers enlivened him, nourished him,⁽⁸⁾ and fueled his desire to be fused with Earth. They helped him to deepen his relationship with a Presence, “a sort of universal root or matrix of beings.”⁽⁹⁾

Although Teilhard focused much of his attention on rock, he was actually a keen observer of the natural world in whatever form it presented itself and never missed a chance to enjoy Earth’s beauty. Letters to friends and family are full of observations about the people that he met, the work that he was doing, and the thoughts that he was thinking. But they are also full of rich and sensuous detail about the landscape. For instance, he wrote to his cousin Marguerite about the “cranes, swans, geese, spoonbills and beautiful ducks with dazzling plumage [that] nest and swim almost as fearlessly as the birds in a public garden.”⁽¹⁰⁾ During his long ocean voyages he often spent time contemplating the beauty of the sea and sky. In a letter to Marguerite written on his way to China, he described an unusual sunset:

Yesterday I could never tire of looking to the east where the sea was uniformly milky and green, with an opalescence that was still not transparent, lighter than the background of the sky. Suddenly on the horizon a thin diffuse cloud became tinged with pink; and then with the little oily ripples of the ocean still open on one side and turning to lilac on the other, the whole sea looked for a few seconds like watered silk. Then the light was gone and the stars began to be reflected around us as peacefully as in the water of a quiet pool. (11)

The songs of the birds and their plumage, the wild hum of insects, the tireless blooming of the flowers (12) —all of these touched him deeply. His senses were alive to the colors, odors, and sounds that enveloped him. In one of his wartime essays, he remarked: “I have contemplated nature for so long and have so loved her countenance.” (13)

Teilhard often found himself drawn by something shining at the heart of matter. (14) Nature exerted power over him. A mysterious inner clarity seemed to transfigure for him every being and event. (15) In an early essay he wrote: “I have always loved and sought to read the face of Nature; but . . . my approach has not been that of the ‘scientist’ but that of the votary.” (16) Reverence, awe, and devotion were aspects of this exquisite relationship. Later in life, while reflecting on the days when he studied theology in Hastings, he still vividly recalled

the extraordinary solidity and intensity I found then in the English countryside, particularly at sunset, when the Sussex woods were charged with all that “fossil” Life which I was then hunting for, from cliff to quarry. . . . There were moments, indeed, when it seemed to me that a sort of universal being was about to take shape suddenly in Nature before my very eyes. (17)

The aesthetic aspect of his encounter with nature served to amplify the pleasure he derived from the experience. As he gave himself over to nature’s allure, Beauty reverberated at the very core of his being (18) and drew him out of himself, filling him with “an impassioned awareness of a wider expansion and an all-embracing unity.” (19) In fact, he claimed that he was “so surrounded and transfixed by [the Divine Presence], that there was no room left to fall down and adore.” (20)

Teilhard’s senses were particularly alert to the interaction of sunlight with the landscape. Like Impressionist artist Claude Monet, who tried to capture in his paintings the play of sunlight on water, haystacks, and water lilies as it changed throughout the day, Teilhard was fascinated with the way the sun’s “deep brilliance” (21) seemed to make “the whole surface of things sparkle.” (22) For instance, he described the view from the window of the room that he occupied in Tientsin, China: “I still have a wide vista of fields and fresh water which enchants me every evening with the sweetness and purity of the hues it takes on in the setting sun.” (23) In his letters he would often mention unusually beautiful details about his surroundings, such as the “large black butterflies with metallic-green reflections and long tails,” (24) or the way “the sea often becomes sleek and oily . . . its surface . . . white and opaque,

like milk,” or how storms that break over the mountains “form thick clouds which the setting sun paints glorious colors.” (25) He was always conscious of the landscape.

Teilhard’s sensitivity to light and color opened another pathway to the Divine Presence. It began, he says, “with a diffused radiance which haloed every beauty” that day by day became “more fragrant, more coloured, more intense.” (26) Sometimes, he was enchanted with “the play of colours [as] on a transparent bubble”; (27) at other times, a crown of light seemed to surround everything and disclose the unique essence of the universe. (28) Just as rays of sunlight strike dust particles, making the rays suddenly visible to the eye, so Divine Light impinged on his inner eyes from all sides and caressed them. (29) And like the reflections caused by “sunlight in the fragments of a broken mirror,” (30) this Light was reflected and scattered in all directions so that his inner world eventually became luminous. (31) Speaking of the Divine Light, he said: “This light is not [a] superficial glimmer, nor is it [a] violent flash that destroys objects and blinds our eyes. It is instead the calm and powerful radiance engendered by the synthesis of all the elements of the world.” (32)

Teilhard compared the Divine Presence that he experienced “gleaming at the heart of matter” (33) with a candle that is placed within a lamp constructed from translucent materials. When candlelight penetrates the outer covering of such a lamp, it transfigures the lamp from within. For Teilhard, nature, like the lamp, is continually “bathed in an inward light.” (34)

Not only could Teilhard see the light of Divine Presence, but he could also taste it. It not only filled his eyes but also impregnated his affections and thoughts. (35) As his perception of the inner light intensified and its color became more brilliant, he was drawn to explore its nature and to bathe in its warmth. This inner light, he says, “becomes perceptible and attainable . . . in the crystalline transparency of beings.” (36) He wanted only this light: “If the light is extinguished, because the object is out of place, or has outlived its function, or has moved itself, then even the most precious substance is only ashes.” (37)

Although he was able to write essays with a poetic flair, Teilhard sometimes wished that he had been gifted with a talent for music instead. Because music is more immediate than language, it “has a much larger world of associations at its disposal” (38) and speaks more directly to the soul. (39) Its ambivalent and ephemeral nature and the intangibility of its content would have afforded him, he thought, a better means of communicating his mystical experience to others. To one of his friends he confided: “I would like to . . . translate as faithfully as possible what I hear murmuring in me like a voice or a song which are not of me, but of the World in me.” (40) Yet, in his efforts to express his mystical experience, he found that “it is not possible to transmit directly by words the perception of a quality, a taste.” (41)

He noted how certain types of sound, and particularly music, poetry, and uplifting conversation, feed the soul: “If even the most humble and most material of our foods is capable of deeply influencing our most spiritual faculties, what can be said of the infinitely more penetrating energies conveyed to us by the music of tones, of notes, of

words, of ideas?” (42) Although the stimulus of color provided him much nourishment, it was more often “the magic of sound passing through [his] ears as a vibration and emerging in [his] brain in the form of an inspiration” (43) that moved him. He realized that music can excite powerful emotions— sometimes simply by allowing a single musical tone to arise from the silence, or, at other times, by weaving into an intricate harmony several voices, each with its own melodic beauty. (44) In fact, composers have at their disposal a glorious diversity of melodies, harmonies, tempos, intensities, and rhythms that can effectively excite emotional response: (45) the sound of a cello or of a French horn playing a haunting melody, the interplay of voices in a fugue, the complex rhythms of jazz—each of these can cause delight at a level beyond the auditory and can open the listener to love. By first setting a mood of anticipation and then by providing either immediate satisfaction or postponed gratification with the use of carefully controlled dissonances, musicians engage the listener at a deep level.

“Hearing is a way of touching at a distance.” (46) To the complex organ that is the human ear and to the brain that eventually relays its message to the rest of the body, this touch can be gentle and loving or harsh and cold. Molecules of air are collected by the shell-shaped pinna of the outer ear and then pound against the eardrum causing it to vibrate. These vibrations set up mechanical waves in the middle ear that are next transformed into pressure waves in the inner ear and finally into the electrical signals that are transmitted to the brain. This complex aural mechanism allows us to differentiate tones and to appreciate harmonies. Although we are often unaware of the soundscape in which we are embedded and of its effect on our psyches, our ears are constantly bombarded with sound waves—nature sounds such as the howl of a strong, gusty wind, the song of a bird, mechanical sounds from traffic and motors, and background music. And when we do become aware, it is difficult to close off our ears to unwanted sonic incursions. Our outer ears are at the mercy of whatever noise pollution is being broadcast through the air at any moment. “Music,” on the other hand, “educates our ears making us more receptive and sensitive to our sound environment.” (47)

From his study of physics Teilhard would have had a rich understanding of the physical basis for harmony. He would have known how the human ear is trained and how the mind is psychologically conditioned to respond favorably to certain harmonies, to certain combinations of tones that work well together. Although composers have intuited how to assemble consonant combinations and have constructed rules to guide harmonic practice, scientists have been able to demonstrate a physical basis for their choices. Structures in the cochlea of the inner ear determine the kinds of harmonies that are pleasing. Auditory signals that enter the cochlea cause hairs along the basilar membrane to vibrate in resonance at the same frequency, causing some combinations to be pleasing and others to be disturbing. Tones that are very close in frequency excite hairs that are quite close together along the basilar membrane, thus producing a physical disturbance in the ears that renders the combination dissonant.

For centuries, the frequencies and intensities of the overtones produced by pipe and string have served as the basis for the harmonic practice of Western music. Pipes and

strings produce harmonic overtones, patterns of consonant sounds that blend well together. Yet, harmonic practice differs from culture to culture and from age to age, and as composers continue to experiment with new combinations of sound, new rules emerge. In recent years composers have experimented with a variety of musical harmonies, including those that avoid a tonal center and those with musical tones whose frequencies fit somewhere between two of the adjacent tones that make up the chromatic scale.

Even though Teilhard was not able to compose music, he often used the language of musical acoustics to describe his experience of Presence. By doing so, he hoped to show others how to listen to their inner music and become caught up in its charm. The resonant frequencies of a plucked string or of an open or closed pipe had their counterpart in the resonant response of his heart to the inner music that delighted him. The harmonious sound created by the interplay of seemingly divergent voices spoke to him of the great harmony of communion that is the goal of all mystical experience and the direction toward which it points.

The music of Teilhard's outer world initiated the music of his inner world. "It began," he says, "with a particular and unique resonance which swelled each harmony." His initial sensitivity to nature sounds helped him to listen more deeply for that unique musical tone that was singing in his heart. Just as

all the sounds of created being are fused, without being confused, in a single note which dominates and sustains them . . . so all the powers of the soul begin to resound in response to its call; and these multiple tones, in their turn, compose themselves into a single, ineffably simple vibration in which all the spiritual nuances—of love and of ecstasy, of passion and of indifference, of assimilation and of surrender, of rest and of motion—are born and pass and shine forth. (48)

Not only did Teilhard experience the Divine Presence radiating from within all things, but he also heard this Presence pulsating at the heart of matter. (49) "There is a . . . note," he says, "which makes the whole World vibrate" (50) with "a vibration that passes all description, inexhaustible in the richness of its tones and its notes, interminable in the perfection of its unity." (51) The "resonance that lies muted in the depth of every human" (52) caused the very core of his being to vibrate in response. (53) Like a musical instrument, his spirit resonated with the unique tone emitted by the Divine Presence, and within his whole being, he felt reverberate "an echo as vast as the universe." (54)

For Teilhard, the duty of the mystic is to be aware of the inner rhythm of the world and to listen with care for the heartbeat of a higher reality. (55) As a result of this kind of listening, he was drawn out of himself "into a wider harmony . . . into an ever richer and more spiritual rhythm," (56) so that he eventually became "caught up in the essential music of the world" (57) and responded to "the fundamental harmony of the Universe." (58) At this privileged place, he tells us, "the least of our desires and efforts . . . can . . . cause the marrow of the universe to vibrate." (59) "Indeed," he wrote, "we

are called by the music of the universe to reply, each with [our] own pure and incommunicable harmonic.” (60)

In music as in life, listening to the other, entering into the emotions of the other is as important as expressing oneself. Performers must be aware of the relationship between their own voice and the many other voices with which they are conversing. Beauty and balance are achieved only when each strand of a polyphonic texture is played so distinctly and woven together so smoothly that each voice can be heard and appreciated as part of a single whole. (61) Teilhard’s sensitivity to music and to nature sounds kept him ever attentive to the Divine, whose heartbeat reverberates within each and every fragment of the world (62) and whose voice becomes evident to those who know how to hear. It was this voice that guided him as he encountered and responded to the joys and sufferings that composed his life.

Yet, despite his extreme sensitivity to the music of the cosmos, Teilhard sometimes felt like “a deaf man straining in his effort to hear a music which he [knew] to be all around him.” (63) The Divine Presence is illusive. Just as the penetrating energies of a musical experience delight the heart and elicit a subtle response only to fade into silence, a mystical experience often lasts but a moment and then evaporates with only its memory to haunt us. (64) However, especially toward the end of his life, Teilhard found himself constantly aware of the Divine Presence.

Unlike the sense of hearing, the sense of smell is a direct sense and one that often arouses vivid memories. Organic molecules called esters evaporate from a fragrant substance, float through the air, enter the nostrils, travel to the top of the nasal passages past the hair-like projections called cilia that filter out dirt from the air, dissolve in the mucous, and bond to the smell receptors located on the olfactory receptor neurons in the nasal epithelium. This bonding triggers neurons in the brain, which then interprets and classifies the stimulant as one of about ten thousand potential odors, and causes the perception of smell.

Just as he was so deeply moved by Earth’s sights and sounds, Teilhard was also alive to Earth’s fragrance, to the “atmosphere heavy with the smell of orange trees in bloom,” to the “hot desert regions of Arabia, all perfumed with incense and coffee,” (65) to the flowers such as the lilac and lavender that “smelt good and sparkled gaily in the hot light.” (66) These lovely scents allured him and encouraged him to “hasten . . . freely and passionately” (67) the mystical path.

Teilhard also came to recognize and to respond to the Divine Presence shining through the eyes of others. While pursuing his doctorate in geology and paleontology in Paris at the Institut Catholique, the Collège de France, and the Museum d’Histoire Naturelle, he spent time with his cousin Marguerite Teilhard-Chambon, whom he had not seen since they were young children. The two found that they had similar interests and developed at that time a deep and lasting relationship. As they shared what was deepest in their souls, Teilhard was drawn to the light he saw shining from Marguerite’s face, “a light glow[ing] for a moment in the depths of [her] eyes.” (68) “Under the glance that fell upon [him], the shell in which [his] heart slumbered burst

open.” (69) A new energy emerged from within, causing him to feel as vast and as rich as the universe. Marguerite had awakened the feminine aspect of his being. His love for her drew him out of himself, sensitized him, and stimulated his capacity for deeper and more intimate relationships. (70)

As a stretcher bearer during the war, Teilhard had occasion to look into the eyes of many a dying soldier. Just before the moment of death, a strange light would often appear in a soldier’s eyes. Teilhard was never sure whether the eyes were filled with “unspeakable agony or . . . with an excess of triumphant joy.” (71) Each time the light went out and the wounded soldier died, Teilhard was overcome with a deep sense of sadness.

Goethe once wrote that “every new object, well contemplated, opens up a new organ of perception in us.” (72) This assertion certainly proved true for Teilhard. Overwhelmed by nature’s grandeur, he seemed capable of perceiving ever new dimensions within the texture of the cosmos.

This scintillation of beauties was so total, so all embracing, and at the same time so swift, that it reached down into the very powerhouse of [his] being, flooding through it in one surge, so that [his] whole self vibrated to the very core . . . with a full note of explosive bliss that was completely and utterly unique. (73)

In response to the diverse and captivating beauties that surrounded him, “all the elements of his psychological life were in turn affected; sensations, feelings, thoughts.” (74) He was experiencing an emotion that “is impossible (once one has experienced it) to confuse with any other spiritual emotion, whether joy in knowledge or discovery, joy in creation or in loving: and this not so much because it is different from all those emotions, but because it belongs to a higher order and contains them all.” (75)

Contact with the beauty of nature and of person began to break down the sense of radical separation that he would naturally experience between himself and others, between subject and object, (76) and began the process of dissolving his dependency on his ego. The more deeply touched he was by Beauty in whatever form—whether a soft touch, a brilliant tone, an exquisite flavor, or a delicate tint—the more he felt free to experience true union with the other. (77) Beauty “drew him out of [himself], into a wider harmony than that which delights the sense, into a richer and more spiritual rhythm.” (78) Being captured by something outside himself and losing himself in something beyond himself was an effective step toward disempowering his ego. (79) Moments of ecstasy blurred the boundaries of his being, engulfed him in feelings that were oceanic, and revealed his bonds to the larger world. (80) He began to see with the eyes of an artist who is sensitive to the soul’s inner currents, (81) so that Beauty found its way into his life and healed his wounds. (82) These ecstatic moments gave him a greater grasp of the world, (83) enabling him to move away from feelings of isolation and to perceive the “unity of a higher order.” (84) As a result, he became capable of stepping forth from his self-imposed and imagined limits, of surrendering his

autonomy, and of opening himself to the larger reality that was presenting itself to him. (85) Having invaded his being and penetrated to its core, having pierced through to his depths, Beauty drew him into that single privileged point where Divine Presence exists equally everywhere, and where all diversities and all impurities yearn to melt away.

Although Teilhard was overcome by the sensible beauty of nature, he eventually realized that to become absorbed in what is beautiful is not satisfying enough. Somehow, he knew that matter itself was not the true source of his joy. Instead, he was actually being allured by the Divine Presence embedded deep within the sensible world, drawn inward ultimately to be invited to flow outward. (86) Rather than holding him prisoner, Beauty continually reawakened him to an impassioned awareness of a wider expansion and an all-embracing unity. Once having entered into the very depths of his being, Beauty would withdraw from him and bear him away.

Earth's beauty fed Teilhard's soul and led him to perceive something shining at the heart of matter. Illuminated by the radiance that emerges from its very Center, the world became transparent. He savored this experience. He "had in fact acquired a new sense, *the sense of a new quality . . . of a new dimension*. Deeper still: a transformation had taken place for [him] *in the very perception of being*." (87) He had reached a place "in which things, while retaining their habitual texture, seem to be made out of a different substance," (88) a place where the Divine Presence "*discloses itself to us as a modification of the deep being of things*." Teilhard was learning something that Thomas Merton expresses so well:

There is in all visible things an invisible fecundity, a dimmed light, a meek namelessness, a hidden wholeness. . . . There is in all things an inexhaustible sweetness and purity, a silence that is a fount of action and joy. It rises up in wordless gentleness and flows out . . . from the unseen roots of all created being, welcoming me tenderly, saluting me with indescribable humility. (89)

Teilhard knew the Divine Presence as "a seeing, a taste . . . a sort of intuition bearing upon certain superior qualities in things [that] cannot be attained directly by any process of reasoning, nor by any human artifice." (90) He knew that underlying Earth's surface charms a vivid Presence lies hidden within and penetrates all things. This was the only source that could give him light and the only air that he could ever breathe. (91) He yearned to sharpen his sensibilities so that he could see ever more deeply into the heart of matter. Along the first circle, the palpable world had truly become for him a holy place, (92) a divine milieu, permeated with a vast, formidable, and charming presence. Clearly, this was "a gift, like life itself," (93) a gift for which he was most grateful. Fortified with this gift, he was motivated to continue his journey through the next four Circles: the Circle of Consistence, the Circle of Energy, the Circle of Spirit, and the Circle of Person into the heart of God.

Notes:

1 This is an edited version of Chapter 2, K. DUFFY, *Teilhard's Mysticism: Seeing the Inner Face of Evolution* (Orbis Books; Maryknoll, NY 2014). (Used with permission.)

- 2 P. TEILHARD DE CHARDIN, *The Heart of Matter* (tr. René Hague) (Harcourt Brace Jovanovich, Inc.; New York 1978) 26. TEILHARD DE CHARDIN, *Heart of Matter*, 20.
- 3 TEILHARD DE CHARDIN, *Heart of Matter*, 20.
- 4 TEILHARD DE CHARDIN, *Heart of Matter*, 20.
- 5 C. CUÉNOT, *Teilhard de Chardin: A Biographical Study* (tr. V. Colimore) (Burns and Oates; London 1965) 129, 156, 91.
- 6 According to those who knew him, Teilhard had a marvelous talent for observation. “George Le Febre, for example, noted . . . that ‘his downcast eyes would spot the smallest bit of cut stone betraying itself by its redness on the bare greyness of the wind-swept soil’” (CUÉNOT, Teilhard de Chardin, 91). His co-worker George Barbour notes that he “could spot a single Palaeolithic implement in a bed of gravel three metres away without dismounting” (ibid., 156). His friend Helmut de Terra says that he “recognized Palaeolithic artifacts with an uncanny sort of instinct. Often he would pick one of these from the ground, look at it briefly from all sides, and hand it to me, saying: ‘It is suspicious; we must find more to be absolutely sure’” (CUÉNOT, Teilhard de Chardin, 190).
- 7 P. TEILHARD DE CHARDIN, *Letters from a Traveler* (tr. Bernard Wall) (Harper & Row; New York 1962) 66.
- 8 CUÉNOT, *Teilhard de Chardin*, 33, n. 27.
- 9 TEILHARD DE CHARDIN, *Heart of Matter*, 20.
- 10 TEILHARD DE CHARDIN, *Letters from a Traveler*, 119.
- 11 TEILHARD DE CHARDIN, *Letters from a Traveler*, 67.
- 12 P. TEILHARD DE CHARDIN, *Writings in Time of War* (tr. René Hague) (Harper & Row, Publishers; New York 1968) 194.
- 13 TEILHARD DE CHARDIN, *Writings in Time of War*, 32.
- 14 TEILHARD DE CHARDIN, *Heart of Matter*, 17
- 15 TEILHARD DE CHARDIN, *Heart of Matter*, 15.
- 16 TEILHARD DE CHARDIN, *Heart of Matter*, 198.
- 17 TEILHARD DE CHARDIN, *Heart of Matter*, 25–26.
- 18 TEILHARD DE CHARDIN, *Writings in Time of War*, 117.
- 19 TEILHARD DE CHARDIN, *Writings in Time of War*, 118.
- 20 TEILHARD DE CHARDIN, *Divine Milieu*, 112.
- 21 TEILHARD DE CHARDIN, *Divine Milieu*, 130.
- 22 P. TEILHARD DE CHARDIN, *Letters to Two Friends* (tr. Helen Weaver; ed. Ruth Nanda Anshen) (The New American Library; New York 1967) 123.
- 23 TEILHARD DE CHARDIN, *Letters to Two Friends*, 50.
- 24 TEILHARD DE CHARDIN, *Letters to Two Friends*, 39.
- 25 TEILHARD DE CHARDIN, *Letters to Two Friends*, 24.
- 26 TEILHARD DE CHARDIN, *Divine Milieu*, 129.
- 27 P. TEILHARD DE CHARDIN, *Hymn of the Universe* (tr. Simon Bartholomew) (Harper & Row, Publishers; New York 1961), 44.
- 28 TEILHARD DE CHARDIN, *Writings in Time of War*, 119.
- 29 TEILHARD DE CHARDIN, *Writings in Time of War*, 118.
- 30 TEILHARD DE CHARDIN, *Divine Milieu*, 114
- 31 TEILHARD DE CHARDIN, *Writings in Time of War*, 246.
- 32 TEILHARD DE CHARDIN, *Divine Milieu*, 130.
- 33 P. TEILHARD DE CHARDIN, *Journal*, Tome I, 26 aout, 1915 – 4 janvier, 1919 (ed. N. Schmitz-Moorman and K. Schmitz-Moorman) (Fayard; Paris 1975) 13.
- 34 TEILHARD DE CHARDIN, *Divine Milieu*, 130.
- 35 TEILHARD DE CHARDIN, *Writings in Time of War*, 118
- 36 TEILHARD DE CHARDIN, *Divine Milieu*, 73.
- 37 TEILHARD DE CHARDIN, *Divine Milieu*, 73.
- 38 D. BARENBOIM, *Music Quickens Time* (Verso; Brooklyn 2008) 3.
- 39 For a discussion of Teilhard and music, see T.M. KING, SJ, “Teilhard, Beauty, and the Arts” *Rediscovering Teilhard’s Fire* (ed. K. DUFFY, SSJ) (St. Joseph’s University Press; Philadelphia, PA 2010).

- 40 TEILHARD DE CHARDIN, *Letters to Two Friends*, 44.
- 41 TEILHARD DE CHARDIN, *Letters to Two Friends*, 59.
- 42 TEILHARD DE CHARDIN, *Divine Milieu*, 59.
- 43 P. TEILHARD DE CHARDIN, *The Human Phenomenon* (tr. Sara Appleton Weber) (Sussex Academic Press; Portland, OR 1999) 29.
- 44 L. BERNSTEIN, *The Joy of Music* (Simon and Schuster; New York 1959) 239.
- 45 R. JOURDAIN, *Music, the Brain, and Ecstasy: How Music Captures our Imagination* (William Morrow and Company; New York 1997), 309, 312.
- 46 R.M. Schafer, *The Tuning of the World: A Pioneering Exploration into the Past History and Present State of the Most Neglected Aspect of Our Environment: The Soundscape* (Alfred A. Knopf; New York 1977) 11.
- 47 J.M. ORTIZ, *The Tao of Music: Sound Psychology—Using Music to Change Your Life* (Samuel Weiser; York Beach, ME 1997) 213.
- 48 TEILHARD DE CHARDIN, *Divine Milieu*, 120.
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