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Ecophenomenology in an Architecture Design Pedagogy: Architecture, Earth, Ethics

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I. POLEMIC

'Good physics makes bad metaphysics.'

Erazim Kohak¹

Humans are destroying the earth - the wellspring of our survival. Why? Rather than engaging with the primordial reality of Nature, humans have developed abstract epistemological systems that have profoundly mediated our ontological interactions and ethical relations with the lifeworld. Science has too often reduced alive, animate Nature to dead matter contingently propelled by blind force ordered by efficient causality, a mythology that in worshipping 'objective facts' sanctions neutrality. Many technologies have translated scientific 'rationality' into artifacts which objectify Nature and abet the economic imperatives of capitalism which plunders the earth for production and consumption for the sake of greed. We live in a world alienated from THE world, where we interact almost exclusively with humans, in human made environments and with human-made technologies. This has created a profound schism between our intellectual convictions and our sensory perceptions, between mental concepts and bodily percepts - between mind and body. As ecology focuses on devastated environments, ecophenomenology - ecological thinking informed by the philosophy of phenomenology - focuses on human consciousness desensitized to Nature by epistemic regimes that have engendered a radical human-Nature separation which ex/implicitly underpins unethical behaviors that lead to earth destruction. In the 21st century world of architecture, anthropocentric aesthetic ideologies colonized by the candy of engineered pleasures dominate the wonder of Nature which though omnipresent often remains ghostlike to design consciousness. Ecophenomenology in this architecture design pedagogy is focused on opening a path away from the 'false consciousness' of human-mirrored aesthetics, to designing in direct sensuous reality. This is a course in organic architecture which explores body, subjective, existential, lived and primal space versus conceptual, geometric, mental or virtual space. It attempts to 'reanimate' design by engaging the soul of the designer in the spirit of the earth in order to develop an ethics in aesthetics which questions Western architecture's relation to nature in the current paradigm of capitalist-led, techno-dominated architectural thinking - necessary in a world of ecological destruction.

II. ECOPHENOMENOLOGY

Ecophenomenology draws together the philosophy of phenomenology² with the late-20th century eco-spiritual phenomenology of Erazim Kohak or David Abram's humanist phenomenology of nature³, with the 'critical theory' of the Marxist Frankfurt School⁴ with late-20th century ecophilosophy e.g. Arne Naas's 'deep ecology' or Richard Lovelock's 'Gaianism'⁵. Ecophenomenology argues that the environmental crisis is equally physical and metaphysical. Ecological destruction derives from a lack of ecological consciousness which is grounded in the anthropocentric view that humans are separate from nature because they are ontologically different, that nature is incommensurable as an animate entity with its own intelligence and, joining the two, that humans in their superiority have ultimate power over nature.⁶ Ecophenomenology foregrounds the primordial experiencing of Nature as the locus of ethics, or, ethics is borne in processes that develop empathetic relations with Nature which (hopefully) gives rise to the realization that the very possibility of our lifeforce resides in Nature's lifeworld.

III. ECOPHENOMENOLOGY AND ARCHITECTURE

Architecture as the aestheticization of space is a key cultural mediator of our experience of reality. Architecture is experienced; it forms around the body blurring the biological into the cultural.⁷ Our everyday, habitual and embodied being in architecture osmotically generates new ways of knowing, thinking, awareness and consciousness. Further, architecture is in and of nature. Architecture breathes in Nature. Wooden floors warming in the sun, wind slamming doors, shadows lazily stretching, clouds overhead framed by windows or dripping gutters become the very definition of the interpenetration of the lifeworld into humans and humans into Nature. As we use the functions of architecture to live our lives, Nature is always the ambient, alchemic catalyst that transforms spaces into landscapes of signification as we transcribe experiences by imagining and dreaming. The phenomenal world brings life to architecture and architecture can translate Her phenomenal happening into palpable resonances that effects existential being. In this context and in this course the task of architecture becomes, as the philosopher Maurice Merleau-Ponty writes "(t)o make visible how the world touches us."⁸ Ecophenomenology in an architecture design studio attempts to develop an 'ecology of mind'⁹ - a way of designing that folds Nature's presence into human creativity and design poetics.

This course cross-pollinates theory with practice, architecture with sculpture and Western architecture with vernacular design, juxtapositions that open up lateral paths of thinking. Frank Lloyd Wright's primal architecture at *Taliesin West* (Arizona, 1938) is viewed in tandem with vernacular architecture (e.g. the parabolic, mud-brick domes of the Mousgoum in Chad) or Martin Heidegger's essay *Building Dwelling Thinking* is applied to Wright disciple John Lautner's *Arango Residence* (Acapulco, 1973). The course simultaneously introduces specific design theories or philosophy then actualizes them in a phenomenological, physical, sensual and embodied design practice concentrating on model making and material studies. Making, touching or bodily thinking is both physical and metaphysical. From making we develop meaning. Hence accompanying the physical processes of designing in this course students are taught to (1) analyze how they experience the world (ontology), (2) how what they make creates meaning in relation to self and Nature (metaphysics), (3) understand ideas and theories of embodied thinking (the 'embodied imaginary'¹⁰) and (4) explore hapticity¹¹ as this relates to the sensuousness of Nature and the materiality of architecture. Given the word limit of this essay, I give a brief description of some of the key ideas immediately below interwoven with some of the theory and philosophy, and then a more detailed elaboration of model making in the context of embodied thinking toward the end.

IV. KEY IDEAS

Architecture in Nature is explored initially through the organic architecture philosophy of the American architect Frank Lloyd Wright which is the grounding theory of this course. Wright's architecture philosophy was borne in his Christian Unitarian religious convictions which stressed human's unity in Nature where God was organically immanent. The poetics of design required translating the apodictic organic truths of Nature as resonant qualities in architecture. This informed design strategies such as the 'flow of nature' in architecture or an aesthetic grammar that mirrored the 'scale' of natural materials (Wright's 'fields of ornaments').¹² The course explores a phenomenological ethics in architecture, or the way architecture can liminally reveal Nature to human consciousness via the seminal essay *Building Dwelling Thinking* by the philosopher Martin Heidegger.¹³ For Heidegger ethics (drawing on the definition of 'ethos' from Heraclitus) means to dwell as this makes appear ('essentially unfolds') the primal oneness of the 'fourfold' – humans, on the earth, under the sky and before the divinities. Key to the appearance of the fourfold for Heidegger is time. For Heidegger being IS time, hence students are introduced to the idea of time in architecture. When separated from nature, human life is positioned as existentially meaningless caught in the random flux of an unknowable and engulfing universe. Designing time into architecture can make us existentially aware of our lifeforce in the *eternal* time of Nature – the passing of a day or the seasons, the time of a rainstorm, the aging of wood. In a profound paradox, time though temporal is always present, it is the very definition of eternity - even after we die time continues. Under this definition, the time of Nature becomes not just a physical phenomena but THE moral symbol of our place in the universe. From the macro - the eternity of the cosmos reflected in a midnight pool of water, to the micro – the way natural materials display the continuum of time in their patinas of wear and decay, architecture can organically attune us to time as it unfolds a rhythmic narrative of transformations glowing in the mood of space.¹⁴ Architecture in this course is cross-pollinated with art particularly sculpture¹⁵ as artists often ask questions about the 'resonance' of forms and materials as this subtends metaphysical questions of self and Nature. For example, Nature can be 'sublime'; it can engulf humans in wonder that dissolves ego into non-self. The dual existence of the phenomenal and metaphysical in architecture can draw us outside of ourselves into an extra-human reality. Under the category '*Architecture as Cosmic and Primal Experience*' Wright disciple John Lautner and his *Arango House*¹⁶ are studied in relation to the site specific sculpting of Roden Crater by American artist James Turrell. Lautner's *Arango House* is a cave, though made from a sophisticated concrete shell, for viewing the sweeping vista of Acapulco Bay (nature) and the huge dome of the sky (cosmos) on a cliff (nature as the engulfing *sublime*) from a viewing platform which resonates with ascent to the heavens; a lovely actualizing of the fourfold. Similarly, Turrell's sculpting of Roden Crater (Arizona) into a series of catacombesque rooms with eye-shaped apertures connects humans to the movement of the cosmos through 'sky sizing'. This is what Heidegger means when he refers to primordial time as 'ecstatic'; our existence in an eternal organic otherness. Kenneth Frampton surfaces the work of the early 21st century architectural theorist Gottfried Semper whose 'theory of tectonics' was inspired by ethnographic studies of vernacular architecture which led him to categorize a building as the earthwork, the hearth, the framework and the enclosing membrane. He wrote, "It is characteristic of our secular age that we should overlook the cosmic associations evoked by these dialogically opposed modes of construction – that is to say the affinity of the frame for the immateriality of the sky and the propensity of mass form not only to gravitate toward the earth but also to dissolve into substance."¹⁷ Vernacular architecture is organically created at the intimate level of the human body physically interacting with and in nature and often leads to primordial, sacred or symbolic connotations. For example, the courtyard, the ring of fire or geomancy are all liminal or threshold demarcations inspired by animistic beliefs. In this course we study vernacular architecture¹⁸ as this unfolds new ways of thinking about construction or tectonics and an architecture that draws meaning from Nature. For example, African mud brick or *pise* (e.g. the Djenne mosque of Mali) cross-referenced with the work of the American architect Rick Joy (e.g. the Catalina House) contemporizes the holistic wisdom of vernacular design. The pedagogy of this course is oriented to a student-Nature experience that inspires the 'metaphysical imagination' which "(f)inds deep and sometimes transcendent meaning in our experiences of nature, in which our appreciation of the particular is infused with the significance of the whole. Thus our imagination can interpret the natural world as revealing universal metaphysical truths: insights about the meaning of life, the human condition, and humanity's place in the cosmos."¹⁹

V. MODEL MAKING AS EMBODIED THINKING

Given the eco-phenomenological moral imperative, architecture design in this course is about exploring, revealing, beckoning or unveiling the primal, cosmic and primordial resonances of Nature in architecture. Clearly therefore the course must deal with and develop each student architect's idiosyncratic ontological sensibility to the phenomenal world. For post phenomenologist Mauro Carbone subjectivity is a "(r)esonance chamber for our encounter with the flesh of the world."²⁰ In this course architecture design is explored almost entirely through model making and material experiments focusing on physical being, sensuous thinking and embodied designing. The shape, form, space, scale, materials and textures of on-site Nature and architecture are experienced, measured and translated by sensual hands, bodily mimesis and physical identification. For Husserl, Heidegger and Merleau-Ponty mind, body and world are one. Thinking is in the body in the happening of the world which creates the very possibility of authentic consciousness. Physical interaction with materials - buttons, pegs, corks, foam rubber, glass, cane, cords, cotton, elastic bands, fuse, driftwood, feathers, leaves, pebbles, machinery parts, needles, paper clips, plastics, polystyrene, screws, sequins, spools, beans, bones, cones, cork, plywood; and physical actions - pinching, scratching, indenting, pressing, folding, rolling, wrinkling, pricking, twisting, plaiting, bending, filing, stretching, boring, piercing, scraping, creasing and jabbing etc provide the primordial experiences that form consciousness and from which thinking evolves. Husserl writes: "To return to things in themselves is to return to that world which preceded knowledge of which knowledge always speaks and in relation to which every scientific schematization is an abstract and derivative sign-language."²¹

VI. MODEL MAKING

In this course we do not use traditional materials or model making techniques as they impede a more primordial experiencing of the materiality of objects or the personally-felt physicality of making. Model making - hands working on real materials, with real tools, with real bodies, in real time is a 'return to things in themselves'²²; an unconcealing of what is present by opening self to the presence of the world. Physical and sensual experiences – grasping and hitting with a hammer, mixing plaster, the smell of resin - are the ground from which design concepts are formed in this course. For example, creating a model wall from melted wax or poured concrete involves understanding different types of viscosity (the thickness or thinness of liquids) as they change state (heated or mixed with water) and flow. Liquid solidifies in the negative space cupped in formwork and is embedded with the surface patterns of that formwork. These are ALL ideas which cannot be understood *a priori* or conceptually without experiencing the making – the mixing, the pouring or the setting. As such our physical experiences of the world provide the sensual data, FROM WHICH the 'mind' thinks, conceptualizes and linguistically formulates.²³ Corporeal knowledge is reflexive, intuitive and empathetic. We can only know the pliability of a material from the physical feel of touch or flex. Making leads to knowledge formed beyond the conceptual mind or before linguistic constructs. There is a clear distinction between design pedagogies that prioritize ideas or concepts leading to linear and teleological paths of design thinking versus sensual thinking based on haptic intelligence from which concepts emerge in an intuitive process of hands-on making. For Merleau-Ponty: "My body is geared to the world . . . This maximum distinctness in perception and action defines a perceptual ground, a basis of my life, a general milieu for the coexistence of my body and the world."²⁴ In this course tools and materials are chosen to challenge students with 'otherness' – the unfamiliarity of different materials and making techniques that beckon them to mold themselves in their interactions with a world of different textures, smells, shapes or weights. In this context, 'traditional' architectural materials and model making techniques are problematic. Foam core or balsa wood are smooth, passively tactile materials which are often used in tandem with cut and glue making methods to create models. Cutting with rulers translates the Cartesian straight-line geometry of orthographic architectural drawings into a physical modeling technique. This form of model making denies the way the rich sensuality of the body is a key mode of corporeal design thinking, or the way more resonant materials open up a universe of tactile analogies to Nature.

The types of materials, tools and making techniques used to create architecture directly informs the objective epistemic environment from which students realize their potential and which directly leads to the aesthetic of their designs. Students not only create by forming materials with tools but they are also constituted by those very materials and tools. Importantly, I do not teach specific modeling techniques, through I do introduce examples. I guide students to explore materials and making techniques that they choose. Why? Each student has their own bodylogic; their own idiosyncratic physicality and body awareness to which they are habituated (theorist Pierre Bourdieu calls this 'habitus').²⁵ Further, they bring to physical making a preontology. They have all lived their own bodies in their own way leading to movement memory which guides the body and thinking beyond conscious awareness. For example, they are weak or strong, or they have clumsy or subtle motor skills to which they have adapted, or they are drawn to casting or sewing or hammering, or they prefer speed or slowness, or colorful materials or monochromatic materials. In choosing and exploring their own materials and making methods they are already encountering themselves primordially in their own material and equipmental environment.

Physical making involves a different way with time outside the time of technologies such as clocks or computers which divorce thinking from the temporal rhythms of the body. 'Flow'²⁶ for example designates how a bodily engagement in a making activity is experienced so intensely that chronological time is forgotten, overcome by personal, ontological time. Designing architecture by making highly material models leads to an experiencing of time at an idiosyncratic pace which discloses a physical awareness of self in one's personal time-cycle of making. Absorbed coping with tools and materials leads to the time of empathy, the slow pace of being with the physical handling of tools and the objecthood of materials, a time of becoming habituated to haptic qualities. Repeating actions over and over, takes the embodied self deeper and deeper into

physical actions that in transforming materials, shapes or surfaces subtly changes physical responses which bodily reveals new worlds to the imagination. Subtle modulations in touch or grasp, in bending or tying are materials informing the preconceptual imagination. While in the repetitive time of making, the mind often wanders returns and then wanders again. Making evolves meaning in this interstitial half light of a forgetting-of-self, a timeless, egoless state where fantasy assimilates reality or when making beckons oblique references which stimulate imagination. Making allows for the gestation of ideas during states of semi-consciousness or unknowingness. For Heidegger the self is both closest and farthest away. In this sense the journey becomes the destination or as Merleau-Ponty writes “Consciousness is blind, what it does not see makes it see.”²⁷

VII. CONCLUSION

Ecophenomenology is about a return to reality - the reality of self and the reality of nature. The pedagogy of this course seeks paths in design that allow students to “(f)ind themselves in nature or recognize nature as a subject in its own right, a subject with which to live in a common universe.”²⁸ A central theme in discussions of human-Nature relations and this course is objectification which traditionally means to conceptualize something as inanimate often for ideologically spurious reasons. This paper has argued that humans have often objectified Nature as a thing, a dead entity which has allowed us to dominate, manipulate, alter or use Nature without conscience. Or we do not perceive of ourselves as one living organism amongst other living organisms in the wellspring of Nature’s orb. In the context of phenomenology or Marxism, objectification can either deaden self to oneself and the world or enliven that relationship. Both theories stress that this depends on how much one possesses one’s ‘reality’. Objectification, the enactment of self through objects, can constitute the unity of humanity with nature as long as this allows for the unfolding of self in the world which allows both to be experienced in their essential aliveness. The embodied thinking foregrounded in this course is focused on the multivalent richness of the mind, emotions, intuitions or the imagination as they are incarnate in each student’s Lifeworld and stimulated by being in Nature - the definition of an alive reality. Conversely, the mathematization of space via orthographics translated into CAD, the key current mode of architectural representation (hence thinking), is ineffable as a path to channel the ‘aliveness’ of an embodied engagement with visceral Nature into design thinking. These methods of representing architecture are divorced from the eventual haptic qualities of the built form in the phenomenal world e.g. materiality, light or time. Architects experience the world in one ontological mode while designing in others. For example, CAD 3D architectural visualizations create a fictive architecture in a substitute world of computer-generated, cartoon-like textures and shadows with no reference to the reality of lived architecture, for example, the smell of decay or the sound of laughter or the sadness of rain. This ‘hyperreality’ becomes an ‘opaque force of delusion’²⁹; it is tinged with the sheen of irresistibility, a substitute gratification that veils the lie of artificiality which problematically performs ideology on the user for whom the fake becomes the reference to reality and, eventually, reality.³⁰

In this course we use materials with radiant textures that engage the subtlety of touch, and making techniques that beckon the fecund intelligence of bodily reflexes as the key design method. Embodied thinking is the very locus of architectural design in this ecophenomenological course because feeling the world through one’s idiosyncratic sensuality with tools, objects and materials develops essential connections to Nature. Ecophilosophy and model making blend when viewed via the philosopher Edmund Husserl’s ideas of ‘lifeworld’ and ‘intersubjectivity’ which focus on the ‘authentic’ experiencing of reality. Lifeworld designated for Husserl the world of our immediately lived experience, *as we live it*. Intersubjectivity reframes Nature as an animate world of multiple lifeforces with their own intelligences and subjectivities.³¹ This course is about returning design thinking to the sensuous aura of Nature divined through the poetics of the architect. For philosopher Walter Benjamin objects, materials, ‘things’ in the world have ‘aura’. They are not just physical phenomenon but are subjects returning our gaze. For Ralph Waldo Emerson, who strongly influenced Frank Lloyd Wright’s philosophy of organic architecture, the poetry of design surfaces from our subjective immersion in Nature’s divine spirit. Eco-mutuality in design was, for Emerson, the distilling of the ‘radiance of the world’ through the soul of the artist: “Seek each to concentrate this radiance of the world on one point . . . Thus in art does nature work through the will of a man filled with the beauty of her works.”³²

Andrew Macklin
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¹ Kohak, Erazim, 1984, *The Embers and the Stars A Philosophical Inquiry Into the Moral Sense of Nature*, Chicago: University of Chicago Press, p. 17.

² The key ideas on phenomenology in this essay are informed by the following: Dreyfus, Hubert L., 2001, *Being-in-the-World A Commentary on Heidegger’s Being and Time, Division I*, Cambridge, Mass.: MIT Press; Krell, David Farrell, 2004, ed., *Martin Heidegger Basic Writings* London: Routledge; and Moran, Dermot, 2000, *Introduction to Phenomenology*, N.Y.: Routledge.

³ Abram, David, 1996, *The Spell of the Sensuous*, N.Y.: Pantheon Books.

⁴ Held, David, 1980, *Introduction to Critical Theory Horkheimer to Habermas*, U.K.: Polity Press.

⁵ Davison, Aiden, 2001, *Technology and the Contested Meanings of Sustainability*, Albany: State University of New York Press.

⁶ Skolimski, Henryk, 1981, *Eco-Philosophy: Designing New Tactics For Living*, Salem, N.H: Marion Boyars Publisher presents an early and formidable argument on Nature as the animate other.

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- ⁷ There are VERY few books written on the way architecture is experienced phenomenologically. Some key texts are Bachelard, Gaston, 1964, *The Poetics of Space*, Massachusetts: Beacon Press Books; Rasmussen, Steen Eiler, 1959, *Experiencing Architecture*, Cambridge [Mass.]: MIT Press and Pallasmaa, Juhani, 2005, *The Eyes of the Skin Architecture and the Senses*, London: John Wiley and Sons.
- ⁸ Merleau-Ponty is quoted in Pallasmaa, *The Eyes of the Skin Architecture and the Senses*, p. 46.
- ⁹ Bateson, Gregory, 1972, *Steps to an Ecology of Mind*, N.Y.: Ballantine Books.
- ¹⁰ The 'embodied imaginary' is a feminist term used in the work of Luce Irigaray, Elizabeth Grosz and Jan Campbell describing the way the body and psychoanalytic self are one. I am using the term to mean corporeality as THE condition for imagination.
- ¹¹ The seminal theory of hapticity central to this design studio is formulated in Pallasmaa, *The Eyes of the Skin Architecture and the Senses*.
- ¹² Frank Lloyd Wright's organic architecture philosophy is discussed with clarity in Cronon, David, 1994, *Inconstant Unity: The Passion of Frank Lloyd Wright*, N.Y.: MOMA.
- ¹³ Martin Heidegger's 'Building Dwelling Thinking' in Krell, *Martin Heidegger Basic Writings*, pp. 343-363.
- ¹⁴ Time in architecture is discussed in Pallasmaa, *The Eyes of the Skin Architecture and the Senses*. Ideas of philosophy of time in this essay are significantly informed by Turetzky, Philip, 1998, *Time The Problems of Philosophy*, London: Routledge.
- ¹⁵ See Bruderlin, Marcus, ed., 2005, *ArchSculpture Dialogues Between Architecture and Sculpture from the Eighteenth Century to the Present Day*, Berlin: Hatje Cantz Publishers.
- ¹⁶ See Hess, Alan, 1999, *John Lautner*, London: Thames and Hudson and GA Houses 44, *John Lautner Edition*, Tokyo: ADA Edita.
- ¹⁷ Semper quoted in Frampton, Kenneth, 1995, *Studies in Tectonic Culture The Poetics of Construction in 19th and 20th Century Architecture*, Cambridge, Mass.: MIT Press, p. 5.
- ¹⁸ Vernacular architecture is significantly explored in Oliver, Paul, 2003, *Dwellings The Vernacular House Worldwide*, London: Phaidon.
- ¹⁹ Hepburn quoted in Carlson, Allen and Berleant, Arnold, ed., 2004, *The Aesthetics of Environments*, Canada: Broadview Press, p. 19.
- ²⁰ Carbone quoted in Matthews, Eric, 'Late Merleau-Ponty Revived' in *Radical Philosophy*, 132, p. 34.
- ²¹ Husserl quoted in Abram, *The Spell of the Sensuous*, p. 36.
- ²² Abram, p. 36.
- ²³ Samuel Todes post-phenomenological ideas on preconceptual thinking in Dreyfus, Hubert L., 2003, 'Samuel Todes's Account of Non-Conceptual Perceptual Knowledge and Its Relation to Thought' in Proudfoot, Mike, ed., *The Philosophy of Body*, Oxford: Blackwell Publishers.
- ²⁴ Merleau-Ponty quoted in Abram, *The Spell of the Sensuous*, and p. 56.
- ²⁵ Theories of bodily thinking are discussed in Burkitt, Ian, 1999, *Bodies of Thought Embodiment, Identity and Modernity*, London: Sage Publications.
- ²⁶ The theory of 'flow' is discussed in Csikszentmihalyi, Mihaly, 1990, *Flow The Psychology of Optimal Experience*, New York: Harper and Row Publishers.
- ²⁷ Merleau-Ponty quoted in Jay, Martin, 1994, *Downcast Eyes The Denigration of Vision in Twentieth-Century French Thought*, Berkeley: University of California Press, p. 320.
- ²⁸ Marcuse quoted in Held, *Introduction to Critical Theory Horkheimer to Habermas*, p. 243.
- ²⁹ Habermas's very interesting ideas on 'technocratic consciousness' are discussed in Held, *Introduction to Critical Theory Horkheimer to Habermas* in the chapter 'The Scientization of Politics'.
- ³⁰ The electronic anaesthetization of reality is discussed in Leach, Neil, 1999, *The Anaesthetics of Architecture*, Cambridge, Mass.: MIT Press.
- ³¹ Husserl's ideas of lifeworld and intersubjectivity are discussed in Abram, *The Spell of the Sensuous*, pp. 33-42.
- ³² Emerson quoted in Cronon, *Inconstant Unity: The Passion of Frank Lloyd Wright*, p. 9.