The Function of Reason and the Recovery of an Earthly Architecture

Matthew David Segall
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“The relatedness between us and the world...which begins to exist wherever there is living structure is as important in the sphere of building as it is in the sphere of nature...[Our]...daily proximity with so many non-living structures—freeways, motels, traffic lights, office buildings—dominates our awareness, cauterizing our capacity to enter into this relatedness, to see it and feel it. It is the presence of living structure in our built world that decides the extent of our relatedness with earth.”

-Christopher Alexander

The function of Reason, according to philosopher Alfred North Whitehead, “is to promote the art of life.” 1 In the context of Whitehead’s cosmological scheme, Reason is no longer a uniquely human capacity to survey and judge the world as if from above the world. 2 Rather, Reason is implicated in the world-process and is a factor in the evolution of all life on earth. The involvement of Reason in the world-process would seem to conflict with Darwin’s doctrine of evolution by natural selection, a theory summed up by the phrase “the survival of the fittest.” Organisms, so the theory goes, battle for position in a fixed environment with limited resources, and those organisms that happen to be most fit survive in greater numbers. Whitehead does not mean to contradict this theory of the origin of species. On the contrary, he celebrates it as “one of the great generalizations of science.” 4 The effect of the struggle for existence “stares us in the face.” 5 He only means to warn against the theory’s over-application. 6

Unlike the methods of the specialized sciences, Whitehead’s cosmological scheme attempts to interpret all the evidence. 7 The evidence includes the upward trend of evolution: more complex organisms have evolved from less complex organisms. The doctrine of the survival of the fittest cannot account for this trend, since it is often the case that the most complex animals are deficient in survival power. “In fact,” writes Whitehead, “life itself is comparatively deficient in survival value. The art of persistence is to be dead.” 4 Living organisms did not appear on the earth because they were better at surviving than the rocks around them. To account for the urge of life toward complexity—that is, life’s tendency to increase the qualitative intensity of its existence—it is necessary to acknowledge an additional factor in evolution. In its human form, this factor is called consciousness. Moderns are discouraged from attributing consciousness to the non-human world. To do so is considered childish and regressive, a relapse into primitive animism. Whitehead invites us to consider the possibility that human consciousness is not a chance anomaly alone in the cosmos, but the most complex expression of an originally unconscious urge of life operative in lesser degrees throughout the physical universe. 9

It is evident that the more complex organisms have not evolved simply by adapting themselves to the environment. Instead, according to Whitehead, “the upward trend has been accompanied by a growth of the converse relation. Animals have progressively undertaken the task of adapting the environment to themselves.” 12 The primary evolutionary function of Reason is thus to set to work transforming the environment so as to promote the art of life. In the case of human organisms, this task takes form through our building practices. Human architecture is one of the most advanced arts yet invented by earthly life. For much of our species’ history, architecture has functioned to shelter and enhance our various cultural activities so as to afford us not only more safety from untamed nature, but more social cohesion and religious awe. Structures were built for the purpose of facilitating human flourishing. But in the modern age, with the shift out of the ancient world-picture into the mechanistic view of the cosmos, a new approach to architecture has taken hold of our building practices. Because our modern imaginations have lost the ability to perceive the life animating the earth and wider cosmos, our built environment has been designed without life in mind. As the architect Christopher Alexander warns us in the epigraph that opens this essay, the more we deaden our environment by surrounding ourselves with non-living structures, the less capable we become of perceiving our relationship to the living earth. Worse, the more these dead structures are allowed to proliferate across the planet, the less life it is able to sustain. The skyscraper is the structure most emblematic of the modern world-picture. 11 Architect Cass Gilbert described their main rationale: “The skyscraper is a machine that makes the land pay.” 12 The function of the skyscraper is not to facilitate human flourishing, but to accumulate capitalist profits. Built of glass and steel, their structure is generally a standardized, repetitive series of floors designed to reach the maximal height with a minimum of materials. They are an expression of modern humanity’s technological power and dominance over nature. Indeed, no other built environment compares to the skyscraper in its ability to alienate its inhabitants from the life of the earth. Rather than dwelling on their alienating consequences, 20th century architects and their financiers understood these mammoth structures in terms of the Darwinian doctrine of the survival of the fittest. The taller the building, the more successful the builders. From their perch in the clouds, businessmen look out, godlike, upon the world below, which from that height resembles a game of Monopoly. In Whitehead’s terms, the skyscraper embodies Reason in its function as “[the director] of the attack on the environment.” 11

Nikos A. Salingaros, a close collaborator of Alexanders’, argues that industrialization ushered in a new method of building focused on copying form rather than generating form, the latter having been the norm in vernacular architecture for thousands of years. Industrial design therefore ignored local needs, conditions, and complexities to focus instead on the mass production and “monotonous alignment of identical copies”: Monotony in our environment has profound consequences on our psyche. A worldview that exalts visual monotony has taken over an earlier environment shaped by the variety of natural forms. If industrial production tied to economic growth and prosperity necessarily generates monotonous, then design variety is sure to be considered a drag on the operation of our economy. 16

Organic form, while it also follows design templates (e.g., statistically lawful physical norms, DNA, etc.), never produces exact copies. Nature brings forth its forms anew with each generation, only succumbing to the “life-tedium” of repetition when the “urge toward novel contrast” has been thwarted. 23 The organic world evolves not to secure efficient survival power (the inorganic world is far more efficient in this respect), but to intensify its capacity for novel organization and experience.
As Whitehead describes it, the industrial age coincided with the canalization of the 17th century scientific outlook “content to limit itself within the bounds of a successful method.” Metaphysical speculation beyond the mechanical lawfulness of measurable material objects was forbidden. Modern industrial architects were thus driven to continue their work “in the secure daylight of traditional practical activity.” The practical function of Reason thus overshadowed its speculative function. Whitehead’s cosmology is an invitation to think differently, a call to adventure beyond the steel glass boxes of modern industrial consciousness, beyond even the projected screens of postmodern electronic consciousness. Whitehead’s heresy is to re-assert the speculative function of Reason in an effort to awaken us not only from the monotony of the modern world-picture, but also from the nihilism of our postmodern rejection of all world-pictures. His efforts are not merely speculative, since they also have a pragmatic aim: to prevent our nascent planetary civilization from burying itself beneath the smoldering rubble of fallen skyscrapers. Another world is possible, a world wherein evolution entails the enhancement of earthly life, rather than the attempt to escape from earth in shining elevators to the Sun.

Speculative Reason is no less heliocentric, but rather than attempting to “secure daylight” from darkness, its pragmatic attitude leads it to seek a mode of existence in concert with what Whitehead calls “The Way of Rhythm” pervading all life and indeed the physical universe itself. On planet earth, there is no escape from the tidal rhythm of day and night: the daylight washes in, and then recedes revealing the subtler light of the Moon and other stars. The speculative philosopher is tasked with rescuing the facts as they are for the whole of our experience of life from the facts as they appear under the bright noon light of a work day:

(We) view the sky at noon on a fine day. It is blue, flooded by the light of the sun. The direct fact of observation is the sun as the sole origin of light, and the bare heavens. Conceive the myth of Adam and Eve in the Garden on the first day of human life. They watch the sunset, the stars appear:–‘And, Lo!, creation widened to man’s view.’ The excess of light discloses facts and also conceals them.

Speculative Reason thus avoids the deadening monotone of modern industrial consciousness. It is “a tropism to the to the beckoning light—the sun passing toward the finality of things, and to the sun arising from their origin. The speculative Reason turns east and west, to the source and to the end, alike hidden below the rim of the world.”

Alexander leans on Whitehead’s new world-picture to argue “that we will not have a proper grasp of the universe and our place in it, until the self which we experience in ourselves, and the machinelike character of matter we see outside ourselves, can be united in a single picture.” Our grasp of the evolution of the cosmos and of life on earth must make room for more than the collisions of material surfaces: it must include the creative interiors of things, that is, their life. Only then can we truly understand the relational patterns of wholeness that these living creatures enact in their collective

Fifth Avenue Mural in the lobby of the Empire State Building in New York City.
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bid for freedom: whether it be the atoms of hydrogen and helium that coalesced to generate the first stars, the proteins and nucleic acids that coalesced to generate the first cells, or the hunter-gatherers who coalesced to generate Gobekli Tepe, the earliest known human temple structure built approximately 12,000 years ago in modern day southeastern Turkey. If we fail to adapt our methods so as to include our experience of living process, our own and the earth’s, then we will continue to build dead structures, further deadening our souls and their earthly habitat. It is a vicious cycle of self-amplifying self-destruction. It is practical Reason run wild, undermining its own basis of survival by forgetting that no final separation exists between an organism and its environment. The life of our own body “is part of the external world, continuous with it... just as much part of nature as anything else there—a river, or a mountain, or a cloud.”

What would it mean to build with the earth, rather than against it and beyond it? It would mean entering into conversation with the river, the mountain, and the wind before breaking ground in the rush to build a towering monument to solitary power that is deaf and dumb to the life processes of its environment. It would mean building ecologically at an earthly pace for the purpose of human flourishing, rather than mechanically at an industrial scale for the sake of economic mastery. Unfortunately, even today, a hundred years after Whitehead’s writing, our theory of political economy remains “under a cloud,” since “it limits its view to the ‘economic man,’”—the individual worker-consumer monetarily isolated from family and community, psychologically alienated from their own labor and physically dispossessed of the very ground upon which they walk. The built environment of our civilization’s great cities reflects the economic values of the industrial growth society, values ignorant of the need all species have of remaining in intimate relationship with their earthly habitats. For now, according to Alexander, “Whitehead’s rift remains.”

Though still drowned out by the cacophonous light of electrified cities, increasingly lucid intimations of a new world-picture continue to flicker on in the night sky above us. It is possible that these lights will constellate into a new cosmological vision to guide our planetary civilization through the coming ecological bottleneck, and that this realization will come with such a sudden “shock” that it will “[transmit itself] through the whole sociological structure of technical methods and of institutions” within the span of a single generation. If human beings are to survive—and, more importantly, if we are to thrive—we must become aware, upon considering the evolutionary history of the earth, that “the struggle for existence gives no hint why there should be cities.”

We must become aware that some “counter-agency” to entropy in the universe and in ourselves is the only factor that could explain the evolutionary emergence of novel complexities like stars and cells, temples and cities. Only with this awareness of the cosmic extent of our own creativity can we “convert the decay of [our present] order into the birth of its successor.” Today, the function of Reason must become the recovery of an earthly architecture: in all our building we must promote and exemplify the art of life. The other option is extinction.
Notes
3 The Function of Reason, 9-10.
4 The Function of Reason, 6.
5 The Function of Reason, 4.
6 The Function of Reason, 5.
7 "...the trained body of physiologists under the influence of the ideas germane to their successful methodology entirely ignore the whole mass of adverse evidence. We have here a colossal example of anti-empirical dogmatism arising from a successful methodology. Evidence which lies outside the method simply does not count...The brilliant success of this method is admitted. But you cannot limit a problem by reason of a method of attack" (The Function of Reason, 15).
8 The Function of Reason, 4.
9 The Function of Reason, 24-25.
10 The Function of Reason, 7.
13 The Function of Reason, 8.
17 The Function of Reason, 66
18 "It has been urged in these pages that there is no true stability. What looks like stability is a relatively slow process of atrophied decay. The stable universe is slipping away from under us" (The Function of Reason, 83).
19 The Function of Reason, 21.
21 The Function of Reason, 65.
22 The Luminous Ground, 13.
24 The Function of Reason, 75.
25 The Luminous Ground, 17.
26 The Function of Reason, 87.
27 The Function of Reason, 89.
28 The Function of Reason, 90.
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