New Directions in Phenomenological Architecture: Balancing Environment, Society, and Economics.

Shane Epting, University of Texas at El Paso - Giancarlo Mangone, Florida Atlantic University

ABSTRACT

We can maximize the distinction between the built environment and the natural environment by looking at it as both necessary and false. By looking at it as necessary, we see how the built environment degrades the natural and compromises the integrity of the landscape. When we view this distinction as false, we gain a method that allows us see ourselves as an intricate part of the larger ecosphere and focus on aspects of environmental responsibility. Applying this distinction to aesthetics, we can look at geo-aesthetics and urban aesthetics as separate or see urban aesthetics as part of geo-aesthetics. The following discussion exhibits how we can use this twofold approach to optimize efforts in sustainable design to achieve unprecedented results in phenomenological architecture. Achieving results of this caliber require a balanced relationship between three of the most important aspects of sustainable design: social, environmental, and economic. Considering these three elements, and the complex symbiotic relationships involved, commands a reorientation of how we think about sustainable design. What is more, we justify this reorientation because humans today have a debt to future generations that requires us to approach design in a manner that is consistent with sustainability.

I. The notion of anthropogenic environmental degradation bears a connotation of responsibility because, well, we caused it. This responsibility requires that we examine and correct the shortcomings that have caused harm to the environment, as much as we can, at least. If we are to amend our environmental wrongs, it must be an interdisciplinary undertaking because we have to cross disciplinary boundaries to have the widest view. After all, the environment cannot recognize these boundaries, and complex situations such as environmental degradation require complex approaches. Yet, we can approach these problems on a case-by-case basis, as each case relates to the whole environmental crisis.

The case here concerns the built environment, and we draw from philosophy and architecture to understand the complexities involved in design. In particular, we focus on commercial office buildings to show how that, building on recent advances in sustainable design, we can look for new directions that are mindful of the complexities. This focus suggests a new approach for balancing the environmental, social, and economic aspects of sustainable commercial office buildings. In what

follows, we focus on the dichotomy between natural and artificial to exhibit better ways to approach this balance. Lastly, we spotlight how this particular case relates to the entire ecological crisis and why this approach is justified.

II. The Benefits of Viewing Natural/Artificial as a Dichotomy

If we look at the dichotomy between the natural and artificial as a real one, then we are forced to see how the artificial has impacted the natural to a degree that is far beyond cause for alarm. While some would argue that much of the natural environment remains untouched, that is not the environment we usually deal with. We have to consider that forests, oceans, lakes, and rivers tend to be viewed as resources first. Their inherent value is considered second if at all because economic forces usually play a dominant role. This, we argue, results when the balance between environment, society, and economics goes unheeded. The benefits of viewing the dichotomy in this way suggest that we have to be mindful of how the artificial impacts the natural. It commands that we, at minimum, acknowledge environmental damage and urges us to take responsibility.

Viewing this dichotomy as false suggests that the artificial is part of the natural. According to this perspective, nothing is wrong because anthropogenic environmental degradation is simply the concentration of what would be considered as "pollution" or "harm" by the one part of the natural in areas like forests, rivers, and oceans. The benefits of this view let us see that this concentration needs to be dealt with. Unfortunately, we encounter the environmental engineering motto, "dilution is the solution to pollution." While the actions taken in the spirit of this motto do reduce the immediate threat to humankind, it does not seek to make amends for the environmental damage. Further, it seems to assume that threshold limits do not exist in nature. If we continue to pollute, we will reach a point when dilution is not a feasible solution.

This view lets us see that we cannot continue to pollute the environment because, to put it frankly, we will end up with only garbage dumps and cities, assuming there is a significant difference – at least if we could understand the environment's perspective. These views in tandem suggest a common sentiment: that independent of the perspective, balancing the environment with social and economic concerns must not remain in the periphery. While this dichotomy is useful, some contend that any separation that used to be there is gone. For instance, Hans Jonas argues: "For the boundary between 'city' and 'nature' has been obliterated: the city of men, once an enclave in the nonhuman world, spreads over the whole of terrestrial nature and usurps its place. The difference between the artificial and the natural has vanished, the natural is swallowed up in the sphere of the artificial, and at the same time the total artifact (the works of man have become 'the world' and as such envelop their makers) generates a 'nature' of its own, that is, a necessity with which human freedom has to cope in an entirely new sense."

Jonas thinks that the dichotomy of natural and artificial is ideally real because he acknowledges that it once existed. We once had the human world and the non-human world, and now we only have the human one essentially. In addition, the manner in which we define "environment," as inferred from Jonas, now must be redefined also because we now have to cope with an unprecedented way of life, the *anthropocene*. Instead of environment *per se*, we are left with the world that surrounds us. Yet, if we consider that humankind has to cope in an entirely new sense, then we should develop a way to have a symbiotic relationship with the surrounding world and resources because our survival depends on it. One does not have to adopt an environmentalist's viewpoint to become convinced of this position. Societies such as the Easter Island inhabitants who failed to respect the thresholds of nature also failed to survive. This viewpoint is essentially a survival mechanism. It must be incorporated into our daily lives and, of course, our buildings. This means that we must use the dichotomy in two ways: firstly, we

can describe how our designs affect the world around us and, secondly, respect the limits of the surrounding world.

If we are to respect the environmental thresholds, we have to be respectful not only intellectually, but also emotionally. Nili Portugali (2006) argues that this is problematic for approaches to design: "Contemporary architecture as well as conceptual art sought to dissociate themselves from the world of *emotions* and connect the design process to the world of ideas, thus creating a rational relation between building and man, *devoid of any emotion*." This is the benefit of a phenomenological approach to architecture: it brings the ways in which we feel about buildings out of the margins. While this point will receive criticisms from some because we cannot quantify feelings, we cannot deny that humans have emotions that are connected to the world around us, which includes the buildings. Considering that terms such as "sustainability" are now commonplace, we can infer that our collective feelings toward the environment hold it in a higher regard than a few decades ago.

III. The Roots of (and a Solution to) Our Current Architectural Crisis

Starting in Europe in the 1970's, ecological aspects were being implemented in experimental architecture. The American response to the European counterpart was formally institutionalized with LEED green building principles in 1998. While LEED sought to improve the manner in which buildings worked to reduce environmental impact, over the years, many architects have worked to improve LEED by making buildings even more environmentally friendly or neutral. The direction that we focus on pays specific attention to the fundamental aspects of sustainable design. We examine and describe the identity of a building and how people relate to it as they relate to themselves, each other, and the surrounding world. From the personal computer to buildings, designs have results for the world around us. While the history of design has not paid much attention to balance, a new phenomenological

approach yields this new direction. Examining and describing how we experience buildings is the merit of this approach because they let us see the picture clearly on different levels.

For instance, David Seamon notes: "In the end, the phenomenological enterprise is a highly personal, interpretive venture. In trying to see the phenomenon, it is very easy to see too much or too little. Looking and trying to see are very much an intuitive, spontaneous affair that involves feeling as much as thinking. In this sense, phenomenology might be described as a method to cultivate a mode of seeing that cultivates both intellectual *and* emotional sensibilities, with the result that understanding may be more whole and comprehensive." By using a phenomenological approach, we gain a comprehensive view of how to properly balance environmental, social, and economic features of design required for sustainability in architecture. Let us consider the following example of how to design a building that accounts for this balance in terms heating and cooling.

Commercial buildings have always had to deal with temperature changes in order to maintain a thermally optimal climate. With technologies such as air conditioning, the need to design with the environment in mind was unnecessary. These designs use lots of energy and money, isolate the people working inside from the world outside, generate negative effects such as sick building syndrome, decreased worker productivity, and harm the ecosphere with increased carbon emissions. Today, buildings' energy usage accounts for approximately 70% of total U.S. electricity consumption annually, and more than 50% of that electricity comes from coal.³ Architectural designs such as the abovementioned play a significant role with respects to anthropogenic environmental degradation. We can make amends by finding better approaches that are mindful of the surrounding world. For an example, we turn to a building design that embodies a phenomenological approach to sustainable design with balance at the forefront.

Washington D.C. is not known for its fair weather. Designs for this region have followed the standard approach outlined earlier. Yet, these designs are almost worthy of a Marx-esque critique, considering how they alienate workers. Looking at the dichotomy as real, we can make the artificial more like the natural in order to make the indoor climate more comfortable. For instance, Giancarlo Mangone designed a building that mimics the internal thermal conditions of a cave, balanced by windows acting as a greenhouse. The temperatures within the building are moderated throughout by using variety of design strategies: utilizing thermal mass of 1.5 feet thick perimeter walls, embedding the base of the mimicked cave 15 feet below the building's ground level in order to take advantage of the earth's internal temperature, and locating south facing gradient spaces in front of the building to shelter it from the sun in summer.

As a result, the building does not require additional cooling to retain comfort during the summer. In order to combat the unforgiving D.C. humidity, the design of the building and materials dehumidify outside air as it enters. The combination of the qualities of a cave and the structures of a greenhouse, mixed with outside air, makes the building comfortable. These aspects of the design help to address environmental portion of this balancing act because it shows more concern for the environment. Also, it helps balance economic considerations because it reduces the cost of building operations. Further, the windows reconnect workers with the surrounding world and reduce the need for artificial lighting. The geometry of the building focuses on natural ventilation, which combats humidity. These features also balance the economic aspects because they reduce costs. The design balances the social because it provides an alternative to fluorescent lights, which are not user friendly. More importantly, windows let the people inside connect with D.C.'s green landscape. These design features account for the intellectual approach embodied in phenomenological architecture because they are mindful of balance. While the cooling aspect is only one design aspect for sustainability, it is

paramount to focus on because it reduces a buildings carbon footprint the most. At this point, we turn to the other aspect of phenomenological method, the emotional side.

Creating an aesthetically pleasing work environment with natural lighting has been shown to reduce stress levels and increase productivity. By providing many open spaces within the building, the design gives people more opportunities for conversation. Designing the building with a comfortable atmosphere in mind enhances working conditions. For instance, the design includes open walking paths, informal and tranquil meeting spaces such as coffee tables situated along the edge of a reflecting pool. At this point, we can view the dichotomy as false to see how this building, as part of the all-inclusive world, creates a shared space that makes the people inside comfortable while the building has a reduced impact on the surrounding world. By considering the emotional aspects embodied in a building's design, this level of mindfulness optimizes the social aspect by reconnecting people, not only with each other, but also with the surrounding world. And, in accord with Jonas' thought, it lets us cope in an entirely new sense by developing a symbiotic relationship with the biotic community.

The arguments above exhibit that new directions give us different results: buildings that create balance. Considering that we need this balance to have a symbiotic relationship with the surrounding world, we increase the likelihood that the thresholds of nature remain respected. In terms of sustainability, designs such as Mangone's show how we can allow symbiotic relationships to flourish. Yet, the word "sustainability" itself has embedded presuppositions, which we will now examine.

Sustainability, defined as being able use natural resources from the surrounding world now and into the future, implies that we have a debt to future generations that requires us to preserve these resources. However, Hans Jonas (1984) argues that we cannot owe something to people who do not exist. Yet, we want there to be people who exist in the future; therefore, we owe it to ourselves to make sure that people have the possibility to exist in the future, which means that they have the resources

required to survive. Considering that the mindfulness reflected in the designs outlined above is consistent with how we view sustainability, then this approach works well with regards to making amends for anthropogenic environmental degradation.

Making amends for our shortcomings toward the environment means that we must reconsider our entire approach to the world that surrounds us. Independent of if we view the dichotomy as real, false, or if we are indifferent, we have to develop a new attitude that embraces the mindfulness found in sustainability. The underlying sentiment behind the arguments above suggests that we must intellectually and emotionally come to grips with maintaining a symbiotic relationship with the world. While economic issues have dominated previous approaches in architecture, we discover that we can optimize this aspect best when we balance it with environmental and social aspects. If we cannot see beyond economic concerns, we can at least see that doing so in a sustainable fashion will let architects do the right thing for the wrong reason. If those working on environmental issues are concerned with more than romantic notions or ethical obligation and truly care for the ecosphere, then they will see past this fault of environmental sainthood and embrace this notion, even if it lacks the right motivation. By not arguing for either side of this dichotomy, one could contend that we are endorsing an environmental pragmatist's view. Yet, we are only suggesting that the usefulness of viewing this dichotomy in a two-fold fashion is merely coextensive with environmental pragmatism. In turn, this approach is simply responding to the tension between both sides. And, out of this tension, we find a solution: finding balance.

¹ Hans Jonas, *The Imperative of Responsibility* (Chicago: University of Chicago Press, 1985) 10.
²David Seamon, "Phenomenology, Place, Environment, and Architecture: a review of the literature," www.phenomenologonline.com/articles.seamon1.html.

³ Energy Information Administration, 2009