Technicalization of Environmental Aesthetics and a Resolution of Spirituality

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Introduction
Sustainability reshapes environmental ethics, available technologies, planning techniques, and assessment criteria, which in turn influence environmental design disciplines. The quantitative interpretation challenges aesthetics by rendering it negative, segregated, and unstable. Under this “hegemony”, various endeavors still contributed to rediscovering aesthetics, which can be summarized as follows: (1) neatness and sanitation as aesthetic outcome, (2) eco-revelatory design, (3) coinciding scenes, and (4) new symbolic elements. The mechanicalness of these four approaches suggests a need to contemplate spiritual aspects of sustainable design. The inconsistency should be recognized between spirituality, aesthetics, and ideology. Lastly, the paper proposes a more inclusive spirituality and aesthetics that embrace the emerging negativity, incompleteness and unstableness of sustainability.

Technicalization of Environmentalism
The quantitative method prioritizes ecological considerations in the designed environment and marginalizes conventional design methodologies guided by aesthetic concerns. The environmental considerations take priority in the forms of numerical parameters, such as indexes, factors, and proportions. These numbers represent a collective and social concern, which marginalizes subjective and individual considerations, such as aesthetics, experiences, and spirituality. Used to dominate design theories, aesthetics is engaged in the language of sustainability, as aesthetic outcomes are difficult to measure statistically or collectively. The environmental effects of a beautiful design are always asked, and can be easily answered in numbers; while the aesthetics of a healing project is always ambiguous and hard to be presented in numeral terms.

Equipped with quantitative methods, sustainability not only exceeds aesthetics to become the dominant consideration in design, but also develops a set of criteria centering on environmental performance. By offering numerical and ratio data as a result of calculation and measuring, the quantitative method lends a powerful tool to enforce environmental ethics, towards other design concerns, including aesthetics. This necessitates positive environment performances as a must for aesthetics. Under the hegemony of sustainability, the theoretical perfection of aesthetics might be suppressed by quantitative methods. As never before, aesthetics can be considered sinful, segmented, and unstable, according to the following specifications.

(1) An environmental sin is implied in every aesthetic while stringent “sustainable” scales are ruling (McHarg, 1968). Inevitably, each project alters site, devours materials, and consumes energy. The quantitative method digs each fundamental physical aspect of projects represent certain aesthetics, which not only presents “awful” environmental degradation but also descriptions on “how bad it is”. This easily labels aesthetics as decorism, consumerism, dissipatism, or simply counter-environmentalism. Environmental skepticism was backed up by persuasiveness of numbers, which inflames negative sentiments towards aesthetics. For example,
Picturesque Landscape is among these marginalized aesthetics (Spirn, 1988), since many discover that the constructing and maintaining this landscape require a certain degree of environment disruption and use of a certain amount of chemicals such as herbicides and insecticides (therefore disrupt the environment again). While few ask about the legitimacy of this aesthetic if alternation of site is unavoidable and if the maintenance is improved, this critical model easily denounces each and every stylistic approach. Aesthetics is named a sin, since it bears a universal accusation. This sentiment leads to a nilility of form in design. Every stroke on the trace paper that represents aesthetics is supposed to take environmental responsibilities.

(2) While the quantitative method takes priority, it undermines the wholeness of environmental ideology. The quantitative method provides a feasible way to describe and resolve the competing categories of environmental concerns, such as energy, biodiversity, CO2 reduction and materials. These aspects suggest that a designed environment can be dismantled into various segments, which is evident in the LEED system (US Green Building Council, 2010). While most environmental considerations can be balanced by comparing and resolving the indicating data, the tangible environment is no longer an intact piece. Consequently, the design strategies described by the quantitative method, such as the degree of destruction alleviation, the amount of material and energy being saved, and other measures of restoration, suggest that the ecological design is a collection of negative remedial measures rather than an ideology of perfection.

(3) The unstable roots of quantitative method itself also lead to the instability of aesthetics. Firstly, the scale and degree on which a quantitative model is based on is hard to define (Thayer, 1989). For example, at what degree should a backyard garden respond to the climate change and sea level rise is always shunned by the quantitative method. Secondly, the competing sustainable factors are left unsolved. For example, the shade blades that are supposed to save energy increase the consumption of materials at the same time. Thirdly, newly discovered environment connections put many formerly advanced environment-improving techniques strategies to shame, such as hydrological power and DDT not long ago, and nuclear power and BPA more recently. In sum, changing criteria ruling aesthetics undermines the constancy of aesthetics.

Four Approaches of Sustainable Aesthetics
No matter how hard the aesthetics is squeezed out of the sustainability terrain, the endeavors sustained to reconstruct new aesthetic schemes, which can be summarized as following five approaches:

(1) Neatness and sanitation as aesthetic outcome. In a rhetorical study reviewing the award winning environmental projects (awarded by American Institute of Architects and American Landscape Architect Association), I discover that projects’ ecological performances do not relate to aesthetic attributes. The ecological concerns always form independent paragraphs or sections, where the authors stressed the numerical parameters. In the text under study, aesthetics and ecology are isolated concerns, neither competing nor complementing each other. Design statements imply that neatness and sanitation, as immediate impacts of environmental restoration and waste reduction, turn out to be the aesthetic outcomes (Treib, 1999).

(2) Eco-revelatory design. This approach called for design skills that can shape the invisible processes and mechanisms into tangible forms and spaces, which was echoed in disciplines both in architecture (Hagan, 2001) and landscape architecture (Thayer, 1976; Meyer, 2008). This proposal recognizes the professional status of designers and suggests that design would culturally celebrate the environmental ethics. However, it is also ruled by the environmental sin. A
dilemma for eco-revelatory design is: what if the celebration of ecology physically causes environmental disturbances?

(3) Coinciding scenes. Scholars apply the visual preference assessment method in the study of aesthetic characters of the ecologically qualified designs (Nassauer, 1995; Gobster, 2007). The participants grade images representing ecological strategies for their visual attributes. The design of this method also suggests the aesthetic attributes are coinciding scenes matching of two segregated parts, rather than two matters of an inseparable whole. Aesthetics seem like floating compositions over the physical performance. Also, statistical analysis excludes stylistic designs which invoke the designers’ signatures.

(4) New symbolic icons. The ecological types, such as wind mills, stormwater ponds, and solar panels, produce concrete environmental benefits and powerfully symbolize the sustainability. We observe that the symbolism of sustainability among these types is intensified with the degree that they distance the quantitative method for consideration of climate and geography in the social dissemination process. While the accumulation of these tangible ecological symbols aids the pursuit of the aesthetic vocabulary, they hardly contribute to the syntax or grammar of the new aesthetic, if there is one.

**The Contemplation**

Rather than competing theories declaring a prospective aesthetic, the approaches reveal the mechanicalness of merging aesthetics and sustainability. All require certain awareness of sustainability in appreciating the aesthetic. Aesthetics is treated as a purely visual matter, which technically relates to the balance with ethic negotiations and positive performances. Spirituality is totally lost: as if man appreciates aesthetics via a quantitative method, free of motion, perception, and experiences.

The difficulty of constructing a new aesthetic paradigm does not mean that sustainability alienates spirituality. On contrast, sustainability requires a broader embrace of spirituality which we previously excluded for aesthetic considerations. The feelings such as fear, danger, anger, constraint, pressure, and doubt are not unfamiliar when the public associate with sustainability issues; partly because most of these issues expose unsustainable facades. Designers endure the same psychological status during the design process, which can be ascribed to the dual inabilities to address the environmental issues: neither the ability to come up the technologies, not to test the outcomes in the projects using it.

The analysis above depicts a bleak prospect for aesthetics as an ideal perfection, which raises the questions on the consistency of spirituality, aesthetics, and ideology: should aesthetics only celebrate ideology? And, can spirituality go beyond the perfection of ideology? These two questions suggest that the idolization of sustainability constitutes a barrier for accessing a new aesthetic. To accommodate sustainability, the design theory should first admit the imperfection of ideology, which depicts the current environment and its status before and after.

Correspondingly, we need spirituality with greater complexity and depth. Negativity, incompleteness, instability as challenges to aesthetics should not be shunned. While current aesthetic exploration is constrained in the technical filed, visualization and perception played an increasingly big role in exposing the current environmental situations in the aftermaths of Gulf of Mexico oil spill, Japanese earthquake and Tsunami, and the Mississippi River flooding. Designers should absorb social perceptions into environmental thoughts and methodologies. A rediscovery of spirituality, including the uncomfortable scenes just like those in the frescoes before
Enlightenment, complements to the delicate subtlety and poetry of life of conventional aesthetics that constrains sustainability. Under this newly constructed spirituality, aesthetics would discard boldness or roughness, humbly embrace fear, danger, anger, constraint, pressure, and doubt, as well as patience, cautiousness, carefulness, subtlety, and instant release.

References
Meyer, Elizabeth K. 2008. Sustaining beauty: The performance of appearance: can landscape architects insert aesthetics into our discussions of sustainability? Landscape Architecture, 98,10:
Landscape Journal. 7 (2): 108-126.