

## **Environment, Technology and Form: Reaction**

*(Paper delivered to the Architecture League of New York in response to the symposium: Environment, Technology and Form, April 2000)*

Appropriately housed within the spheric geodesy of the Caspary Auditorium, The Architecture League's recent conference, "Environment, Technology, and Form" (April 29) was provocative as much for its title as it was for the discussion which took place around the complex web of relationships between technological engineering, architectural form/space making, and the processes of the natural world.

Simply put, the pithy triad of terms was intended to situate a deliberation on the recent contributions of engineering to sustainable design. This it did. However, in deference to Peter Buchanan's absolutely correct call to extend the "quest for sustainability...beyond architecture and technical solutions to include...cultural transformations", I think it might be useful to examine the words in their all-too-limiting descriptive and prescriptive assumptions about our practices as architects, engineers, and, above all, human beings.

Technology and Form,...hmm, there is a set-up here. This dichotomous relationship positions engineers, science, instrumental devices, etc. on one side and architects, aesthetics, and the "magnificent play of light and shadow etc..." on the other. We are used to this by now and while the distinctions may be convenient, they have clearly made for bad habits. What I want to suggest is that the third term, Environment, can be the tie that binds things back together. By this, I do not mean a collegiality born of necessity to fight environmental problems. That was already well covered by the discussants at the conference. Sorry to those who missed it; it is important. Instead, I want to briefly consider the already shared embeddedness of our different discourses and practices in the "natural world."

Firstly, what is being said by "Environment"? It has been remarked elsewhere that, when considered as the object of politics and planning, *Nature* turns into *Environment*; furthermore this moniker for the natural world makes its' material, dynamic, and all-encompassing qualities fade away into the remote abstractions of policy-speak, and turns it into a passive "space" simply waiting to be acted upon. Unfortunately, I think this point is well taken and reflects a modern identity crisis which often has us both thinking of ourselves as "un-natural" despite being constituted by the same genetic, evolutionary, and ecological foundations that we are thought to stand over and against, and thinking of Nature as "un-cultured", indifferent to the socially contingent metaphors and other linguistic conventions we use to describe or even *think* it. So, I would argue that when we think of "Environment", we stay focussed on the dynamic, and inextricably-related-to-ourselves properties of natural processes rather than the reductive and static "object of knowledge" whose abstraction from everyday life dulls this plenary manifold.

Secondly, it is noteworthy that "Technology", whose early and fundamental imperative to "control nature" underlies a long history of inadvertent damage to the natural world, is now being embraced as the solution to this very history. This may be ironic but I don't think it is inconsistent. Technology, as applied science (or science as "theoretical technology"), has always modeled itself on the physico-chemical principles of natural processes and while it has tended to use these principles to formulate resistance to or aggressive reconfigurations of the land, wind,

rain, and sun, it seems merely a matter of inspiring ourselves to re-think the formulas in order to arrive at a more comfortable accommodation with the earth.

But, I am an architect, you say - the third term, "Form", is my domain, technology is an engineering problem. Well, maybe. My physics and chemistry are a bit weak but I spend a lot of time on the land in the wind, rain, and sun. As an architect, I build there. I find it conceptually and technically extremely provocative to consider the material, spatial, and formal possibilities that might emerge when an architecture tries to understand its affinity to the earth in a *performative* way. This would be a tectonics founded not on a neo-platonic vocabulary of autonomous, idealized formal objects but rather on a dynamic ecological morphology in which, as ecologist Paul Shephard suggests, "objects are temporary formations... within complex flow patterns." This idea of *systemically-constructed* architectures posits a new way of thinking about Form (and Space). It is a radical notion of Form conceived not as fixed but rather which shifts and shapes (in diurnal or seasonal time) in conformance with local natural processes. Made meaningful as well as possible only recently by advances in both predictive technological tools (computer-modeling and performance criteria measuring) and material technological structures and mechanical devices (large scale "prosthetic" extenders of human experience), this idea of form-making suggests Paul Virilio's information/deformation "dromosphere" brought back to earth.

Given the complex play of both our language terms and the biotic realm, essentialist descriptions which try to claim what the Environment, Technology, or Form (Architecture) *is* do not seem very useful. Rather it is what they *do* in their processes and practices that count. I marvel at this complexity and am provoked by the rich intellectual territory that lies ahead in both the social and natural sciences as we try to untangle the dire predicament in our thinking about social and natural ecology. As makers of social space in the ground of the earth, architects are situated on the front line. What an opportunity, but, also what a lot of work to do. There is much to learn from others about the "environment and technology." It may be that, given the extraordinary shift in thinking which is required by Buchanan's "cultural transformations", we will have trouble teaching old dog architects new tricks; however, there are the students. As we stood in the sun, cooled by the gentle turbulence of a Spring breeze formed by the fluid dynamics of its encounter with the triangulated sphere of Caspary, Ken Frampton noted, woefully, to me the seeming absence of faculty from the local schools of architecture. Too bad.