Drosscape

Urban territories and metropolitan regions possess unperceived complexity that cannot be completely controlled and planned. The situation is not unlike that of living organisms, whose hard parts—bones of vertebrates, shells of marine invertebrates, iron and other elements precipitated by cells—originate in the expelling or managing of wastes.

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Calcium, for example, is essential for that living infrastructure of the human body, the skeleton, yet is routinely extruded by cells in the marine environment; this striking example is not an analogy, but arguably a homology for how waste becomes incorporated into urban structure and function. The economies that provide the energy and materials for the growth of urban areas, such as manufacturing output and housing starts, are less things than processes. And as is true for organisms, the faster they grow, the more waste they produce. This is a natural process that can be ignored, maligned, or embraced—but never stopped. Drosscape follows the laws of the natural world, most notably the second law of thermodynamics—which work under the rubric that there is no growth without waste. Progress in both nature and civilization produces waste. As daily life teaches, Murphy's Law reminds, and the second law of thermodynamics formalizes, nature produces waste as it grows. Grappling with this fact design-wise is a fascinating challenge. Waste is necessary.

Nobel Laureate Ilya Prigogine once wrote about the unpredictability of complex systems, "What is now emerging is an 'intermediate' description [of reality] that lies somewhere between the two alienating images of a deterministic world and an arbitrary world of pure chance." These words apply perfectly to the realm of urbanization. Cities and their metropolitan areas are not static structures but active arenas—marked by continuous energy flows and transformations of which landscape surfaces and physical buildings and other parts are not permanent but transitional structures. Like a biological organism, a metropolitan area's surface is an open system whose planned complexity always entails unplanned dross. To expect a planned city to function without exoskeletal waste (such as in a cradle-to-cradle approach), which represents the in situ or exported excess not only of its growth but of its maintenance, is as naïve

as expecting an animal to thrive in a sensory deprivation tank. The challenge for designers is thus not to achieve wasteless urbanization or to fully reabsorb the energetic outflows of the urban whole. Instead, it is to integrate inevitable permanent waste streams into more flexible design and planning strategies.

With these ideas in the conceptual background, the Drosscape session is interested in linking the practical and theoretical issues concerning urbanization and waste. It seeks to make associations among industrial, economic, and consumption activity (material culture) and the design opportunities created as a result of these processes. Contemporary modes of industrial production, driven by economical and consumerist influences, contribute to urbanization and the formation of "waste landscapes." These landscapes are composed of actual waste (such as municipal solid waste, sewage, scrap metal, etc.), wasted places (such as abandoned and/or contaminated sites), or waste*ful* places (such as inefficiencies of huge parking lots, retail malls, etc.). The terms "urban sprawl," "smart growth," "urban sustainability"—along with the rhetoric of pro- and anti-urban sprawl advocates—all but obsolesce under the realization that there is no growth without waste. Drosscape describes the full body of residues from economic production left over in metropolitan areas. Worldwide, millions of blighted, vacant, abandoned and contaminated sites exist within the boundaries of urban territories. The phenomenon of Drosscape marks an epochal moment in urban history now that cities have accumulated more surface residue than at any time since the Great Depression.

Presentations in this session consider multiple contexts for Drosscape thinking: from big-box networks and sites, to landscape architectural features, to temporary programming of urban areas, to metropolitan scale analysis and strategy. We will address the following issues: How can urban areas, regions, landscapes, infrastructures, be designed to simultaneously use Drosscape as it accumulates? What are innovative approaches to landscape growth and feedback systems in urban evolution? How can cities be explored as active arenas marked by continuous energy flows and transformations, of which landscapes and physical buildings and other parts are not permanent but transitional structures? What are Drosscape reprogramming and remediation/containment/cleansing opportunities that include creative planning and design? This panel also opens the wider discourse on hidden Drosscape processes that are either too large to see, too distant to read, or take too long to unfold in a neat and tidy manner. Such is the case with all four papers that follow, providing different scales of Drosscape recognition and action.

In "Île de Nantes—Designerly Ways of Recognition," Ellen Marie Braae explores the idea of a common identification of waste through the built landscapes of Alexandre Chemetoff. The viewer or consumer of Drosscape imagery, she asserts, does not have the same feedback system as a real landscape designer using waste as his palette for creation. The philosophical ethics of recognition and aesthetics is plumbed to

construct a platform for common "waste" recognition, and is grounded in Chemetoff's design language and methods. Braae argues that his projects are constructed through a site-specific reading of waste, that hopefully feed back a recognition and appreciation of waste to the communities using his designs: "With Chemetoff. . . things intertwine and are placed into a larger process. Through this, he also reveals a way to consider recycling and waste management." Chemetoff's built projects provide an authentic Drosscape experience, which may alter the appreciation for new types of Drosscape production in the future.

Ian Caine's essay, "Big Box Operations: Managing Waste and Change in Wal-Mart Superstores," lays out a convincing argument for ecological, flexible conversions of under-programmed big-box surface development. Using Wal-Mart's home location in Arkansas for demonstrative purposes, Caine designs a series of real landscape programs that partially retrofit parking seas at the urban scale. He uses flexible, seasonal elements (such as vegetation and nursery operations) and storm water management to stack the site with environmental benefits. The uniqueness of this approach is its ability to scale up to metropolitan,—or even regional and national—scales.

Greece and Spain were hard hit during the recent global recession. These countries and many other places are undergoing major development gluts and austerity measures. Christopher Macinkoski explores this Drosscape condition in "Anticipating The City That Never Was," which he describes as failed planning and design growth models implicitly driven by equally fallible political and economic policies. What are design and planning strategies for cities when growth models fail and new development bubbles burst? He describes an alternative way to think about growth as a continuum of inevitable failures, whereby urban locations anticipate setbacks and lulls.

"From Drosscape to Sponge-scape," Brittney Lynn Everett seeks to reconceptualize the borders between Drosscapes and other production sites for new temporary uses. Everett develops two central themes of "liminality" and "sponges" in her application of Drosscape conversion, citing philosophical, theoretical, and historical literature that bring meaning to the term.

As these papers reveal, Drosscapes depend on the production of waste landscapes from other types of development in order to survive. In this rubric one may describe Drosscaping as a sort of scavenging on the urbanized surface, even political and development policy, for imminent interstitial landscape remains. Presumably before finding his or her clients, the designer works in a bottom-up manner, conducting fieldwork while collecting and interpreting large-scale trends, data, and other phenomena in search of underutilized or wasted urban land. Once these landscapes are identified, the designer proposes a strategy to productively integrate them. As degraded and interstitial entities, Drosscapes have few stakeholders, caretakers, guardians, or spokespersons. This requires the designer to search for, identify, and educate the stakeholder or group most likely to adopt the need for change.

Designers must identify opportunities within the production modes of their time to enable new ways of thinking about the city and its landscape. Landscape architects, architects, and urban planners often follow too far behind these processes, scavenging commissions from their jetsam as they change course. It is time for designers to find opportunities *within* these processes by advocating more culturally ambitious ways of challenging urbanization. As a strategy, Drosscape provides an avenue for rethinking the role of the designer in the urban world. Given a constriction of natural and other resources, politicians and developers in many parts of the world have already turned their attention to infill and adaptive reuse development.

With Drosscape, a new paradigm is cast. It requires designers to think of themselves strategically as charged with identifying the undervalued and overlooked potentials of the urban region. It further suggests a move away from the heroic, modernist master planner toward the advocacy designer who engenders inventiveness, entrepreneurialism, and visioning. These qualities are neither taught sufficiently in design school nor represented on professional registration examinations.

Drosscape will always accompany growth, and responsible design protocols will always flag such waste as the expanding margin of the designed environment. The energy that goes into rapid growth, after populations and civilization reach temporary limits, is now being used to refashion and organize the stagnant in-between realm. The recent global economic crisis and the four papers in this session bear witness to this condition. Humanity's fantastic growth has inevitably confronted us with commensurate wastelands. Drosscape, far from marking failure, testifies to previous urban successes and establishes a design challenge for its continuance. Studying how urbanization elegantly co-ops wastes and reincorporates them in the service of efficiency, aesthetics, and functionality has moved past the repressed edges of design and planning more toward the center, which is, one need hardly emphasize, increasingly where we find Drosscape in the real urban world. ◆