

Building Metropolitan Consciousness

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“If steam was the victory of the straight line over the zigzags demanded by the wind, containerization was the victory of the rectangular solid over the messy contingency of the Ark. As we will see, containerization obscures more than the physical heterogeneity of cargoes, but also serves to make less visible and more remote from metropolitan consciousness, thus radically altering the relationship between ports and cities.”(Sekula 1995, 49)

In this passage from *Fish Story*, Allen Sekula reflects on the perceptual transformations that occurred in port cities as a result of the shift to containerization as the predominant logistics system of goods transshipment. Sekula introduces ‘metropolitan consciousness’ to describe collective awareness about the urban environment. By referencing the relation of cities to ports, he is further articulating that this is about a city’s understanding of its place in the world of material flows. So, not only is the nature of cargo concealed by the container, but so is the relation of the city to its material network.

Containers are a convenient analogy for buildings and architecture more generally. Sekula’s critique of the impact of the container on the relationship between the inhabitants of cities to cargoes (materials/resources) and to ports (places that materials/resources pass through) is a fair question to ask of the architecture of the city. If the simple architecture of containers can reduce the legibility of the city, then what is the role of other architecture to contribute to metropolitan consciousness?

Sekula’s observation points to a broader critique of urban development, in the relationship of consciousness to empowerment. A citizenry is not empowered to make informed decisions about their environment, about what goods they are consuming for example, and where they come from, if the system lacks legibility and therefore consciousness is unattainable.

This critique is directly embedded in the specific history that gave rise to the container itself. Containerization famously started on the shores of New Jersey, when shipping logistics magnate Malcolm McLean observed the relative inefficiencies of the break-bulk unloading methods of that time, to get goods from truck to ship and vice-versa. These were inefficiencies born from people in multiple ways. People carried and rigged goods in manageable packages

between ship and shore. Hundreds of people were directly engaged with handling goods in this process. Goods held and touched and could be identified as heavy or light, fluffy or dense, leaky and smelly, greasy hands would drop cargoes on decks that would splay across the ground, further slowing the process. But in those messy and incidental moments the contents of global trade were made legible in the urban environment. Ports were gateways to sights and smells and material qualities that were inherently communicative of a place within a global flow of material goods that ultimately supported and built that place.

“In the past, harbor residents were deluded by their senses into thinking that a global economy could be seen and heard and smelled. The wealth of nations would slide by in the channel. One learned a biased national physiognomy of vessels: Norwegian ships are neat and Greek ships are grimy. Things are more confused now.”(Sekula 1995, 12)

This was a first dimension of consciousness severed by the systematic sterility of the container. A second was a more directly socio-economic dimension, which derived from McLean’s interest to circumvent the various union troubles which he saw to detract from the ultimate efficiency of the logistical system. The process of containerization shifted the unloading of cargoes from many hands to few cranes, which could remove the entire contents of a truck in a single swipe, replacing the hundreds of people once necessary for the process. Of course, from this direct employment came thousands of families and relatives indirectly connected to the port, and thousands further who day to day passed the port, only to catch glimpses and smells of the messy contingencies that support the city. A third dimension results from a new scale of time made possible by containerization. Wherein ships could be unloaded exponentially faster, large areas of space were required as cargo laydown area. No longer were trucks capable of matching the discharge rate of ships. Consequently, massive laydown areas, sized to be a stop-gap measure between ships unloading and trucks distributing, were implemented. Such vast logistics landscapes push the operations of the port further afield to the urban edge. Cities are separated from ports by vast un-traversable terrains of security zones. No longer do passing individuals see the workings of the port. If by chance,



Figure 1: Shipping containers passing through the Panama Canal, 2007, photo: Landing Studio

a passerby glimpses the operations, their view is shrouded by the architecture of the container itself. Through this up-scaling of the industry, based on the logistics of the container, the proximity between people and their goods was severed.

In aggregate, across these dimensions, people are separated from these material flows. The collective consumption of the city is subsequently isolated from the consciousness of the city.

Sekula further argues that this loss of consciousness relegates urban inhabitants to become disempowered passive participants- unaware of the various systems of which they are even part. In an extreme example, unknowing dock workers are inadvertently transshipping weapons to an enemy that will likely use the weapons to attack the very place where they work and live.

“Sailors and dockers are in a position to see the global patterns of intrigue hidden in the mundane details of commerce. Sometimes the evidence is in fact bizarrely close at hand: Weapons for the Iraqis in the forward hold. Weapons for the Iranians in the aft hold. Spanish

dockers in Barcelona laugh at the irony of loading cargo with antagonistic destinations.” (Sekula 1995, 32)

Many dimensions of the post nineteenth century ‘hygenist’ or ‘bacteriological’ city (Gandy 2004, 365) contribute to the removal of the ‘messy-ark of contingencies’ from the urban domain and subsequently from metropolitan consciousness. These range from planning measures enforced through zoning, security regulations that isolate, to building practices that conceal, bury, and embed, and everyday routines of cleaning, mowing, pruning. In fact, none of these mechanisms of containment and control eliminate the messiness of urban life. Instead, they simply relocate to ‘ends-of-pipes’, outside of the city, where the results of such activities are less perceivable because of the diluting capacity of the ocean and the atmosphere.

The desire to conceal the messy infrastructural systems of the city is not inherent nor required by the city. There are many examples throughout history in many cities.

“Between 1560 and 1630, when the Catholic Church sought to exemplify its prestige through the restoration of the city, it developed Rome’s water infrastructure as the primary vehicle to transform the medieval backwater into one of Europe’s pre-eminent cities.



Figure 2: Warehouse in Chelsea, MA, 2005, photo: Landing Studio

The impacts of the hygienist city transform architectures of industry into anonymous shells much like shipping containers. Similar to containers, such architectures isolate people and metropolitan consciousness from the inner workings of these facilities. For example, in 2005, lost radioactive material used to fabricate nuclear weapons showed up in this warehouse in Chelsea, MA. It remained undetected inside this warehouse for months.

"Investigators said the material had been mislabeled by the shipping company, resulting in it being sent to Boston instead of Houston when it reached port. The container held the radioactive element americium."

"He also asked why a large package that should have been labeled as being radioactive went unnoticed for four months." (Boston Globe, 02/11/2005)

The visible aqueducts, fountains, bridges and invisible conduits, distribution tanks, sewers; formed an integrated water infrastructure system that was both a symbolic and physical armature that effectively ordered Rome's public space and prioritized the city's development. The city's rebirth through water infrastructure relied heavily upon recalling the paradigm of Rome's past- the 11 ancient aqueducts, hundreds of fountains and numerous sewers that had once ornamented and served the ancient city." (Shannon 2013, 164)

In cities today, such techniques of isolating and cloaking the messy contingencies of urban life have become so pervasive and normalized in building traditions and social expectations that it is often seen as negative or blighting to deviate from these practices. The work of landscape architect Joan Nassauer evaluates the rejection of seemingly 'wild' conditions in the context of conventionally mowed lawns of suburbs. In these studies, Nassauer observes that common aesthetic preconceptions contribute to the collective rejection of landscapes that perform high ecological value but do not follow standard images of landscape control with conventional 'cues to care' (Nassauer 1995, 167). This work identifies specific landscape maintenance tropes that are now critical for creating socially acceptable urban landscapes in such context. While each of these landscape shaping techniques construct a desired landscape aesthetic, they are prohibitive or confining to the ecological function of these landscapes. Such actions include mowing, trimming, geometric arrangements, bold differentiated landscape patterns, and architectural barriers and divisions like fences. The investigations by Nassauer reveal the seeming contradiction that while nature as a concept is almost universally strived for as an idealized state, the actual processes and appearances of ecosystems are not. Nassauer

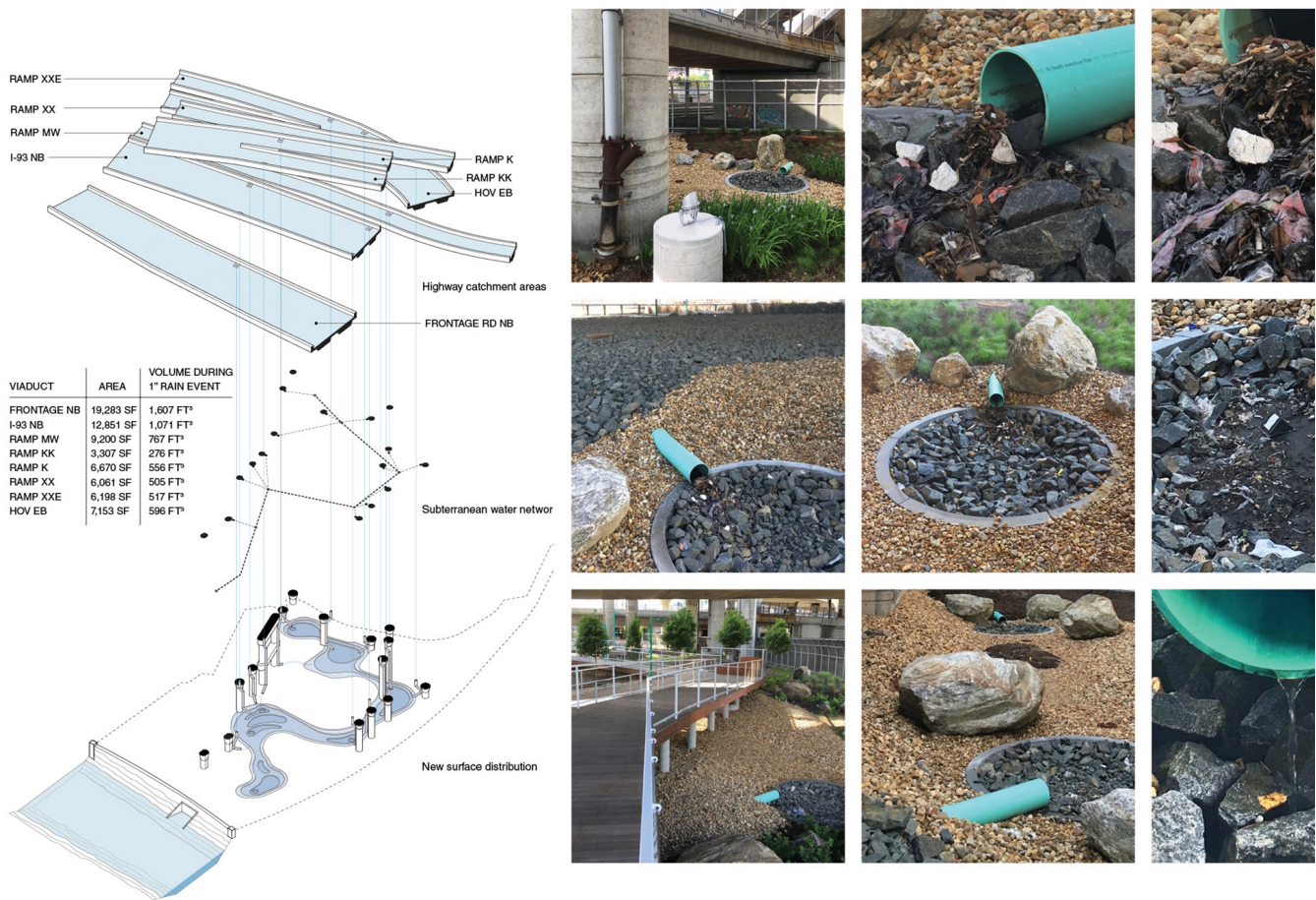


Figure 3: Storm-water retention landscape and trash/grit/grim depositions in dissipation basins at Infra-Space 1 in Boston, drawings/photos: Landing Studio

cracked and weedy lots -are- re-paved with asphalt, standing water -is- piped underground, visible utilities -are- surrounded an enclosure,

identifies that this results at least in part from a distinction in the contrived image of nature and performance of ecosystems.

“We know how to see ecological quality only through our cultural lenses, it may not look like nature. Nature has come to be identified with pictorial conventions of the picturesque, a cultural not ecological concept. More significantly, picturesque conventions have become so integral to landscape perception that we no longer accept their origin in culture. Picturesque conventions seem so intrinsic to nature that they are mistaken for ecological quality.” (Nassauer 1995, 161)

These conditions described by Nassauer on the cultural acceptance or rejection of novel landscapes is equally applicable to the messy ecosystems of urban infrastructure landscapes. Collectively accepted images of what constitutes ‘good’ urban practices are commonly divorced from any actual positive determinants – such as health, eco-system performance, or even beauty - in the environment. For example, common design solutions for containing and isolating messy infrastructures from the perceptual realm of the city include:

To study the possibility of re-engaging actual ecological processes in cultural landscapes Nassauer works with students to produce landscape representations that illustrate varied degrees of controlled wilderness. With these representations in hand, she conducts interviews to identify the forms of architectural controls and ordering devices that make wildness of landscapes acceptable to social norms and expectations of suburban communities. From this work she posits that the re-introduction of messy eco-systems into urban environments is essentially a design problem of re-presenting and framing landscape systems.

“The difference between the scientific concept of ecology and the cultural concept of nature, the difference between function and appearance, demonstrated that applied landscape ecology is essentially a design problem...It requires the translation of ecological patterns into cultural language. It requires placing unfamiliar and frequently undesirable forms inside familiar, attractive packages. It requires designing orderly frames for messy eco-systems.” (Nassauer 1995, 161)



Figure 4: New ordering frame of mobility, planting, lighting, and recreation plates for storm-water management landscape at Infra-Space 1 in Boston, MA, drawings: Landing Studio

Combining these two observations (both written in 1995) by Sekula and Nassauer, the pursuit of re-building metropolitan consciousness of long-forgotten and deeply buried infrastructures of the city will depend on daylighting messy systems that have been conveniently taken out of view and removed from the collectively held ‘proper’ image of the city. The acceptance of such systems re-entering the image of the city will require the creation of orderly frames that re-situate them as acceptable cultural landscapes and architectures.

A recent testing ground for these ideas is the Infra-Space 1 in Boston, which was opened to the public in 2017. This project aimed to re-engage the public with multiple layers of urban infrastructure. The site itself, located under the elevated I-93 viaduct, is the largest highway interchange in the city. Immediately after its construction, it had been fenced off and made inaccessible to the city, effectively obscuring dozens of acres of land. Similarly, all infrastructure systems supporting the highway- fire lines, electrical utilities, and storm drainage- followed conventional building practices, and were buried. Storm-water run-off, as usual, was drained below ground through buried pipes to re-emerge at outfalls into an adjacent ocean inlet.

The Infra-Space 1 project aimed to re-engage the city with both these dimensions of the infrastructural landscape. Firstly, by creating accessibility infrastructure to bring people into the highway defined landscape. In this circumstance, the isolation of the public from the landscape had led to highly negative effects, including illegal dumping, rampant unmonitored drug use, and violent activities.

Wherein the previous effort was to keep people out of the site and separate people from the perceived negative space of the highway, the approach was reset to maximize a self-regulating presence of people. Here, a mobility oriented framework of transit was primarily implemented to create new passage for maximum public access and consistent thoroughway. This unknown space of the city was to become re-entered into the collectively constructed conscious map of the city.

The second infrastructural agenda of the landscape was to undo the hygienic aesthetic yet environmentally detrimental character of the water management strategy of the site by daylighting the underground storm water conveyance system. The design re-routes highway run-off from concealing drain leaders and catch basins into open air dissipation basins and a constructed wetland retention pond environment under the highway. Trash and grit that previously flowed through underground pipes discharges directly in plain sight, creating small trash depositions throughout the landscape. The discharge of the trash and grit and grime highway run-off into the landscape, instead of direct discharge into the ocean, creates the clear advantage that the water may be filtered by landscape plantings and evaporated, while the trash and grit and grime can be captured and more properly disposed of in managed facilities. Yet, this design foregrounds messy urban ecology systems that would typically be perceived as perversions of the aesthetic sensibilities of typical cities today. Under highway sites full of contaminated water and trash depositions are not typically considered good urban neighbors. Though, in this case, these elements working together are solving greater urban consequences of isolation and contamination.



Figure 5: Infra-Space 1 landscape in Boston, MA, photo: Landing Studio

This messy ecosystem of highway/run-off/trash is ordered and made culturally familiar enough through a layered infrastructural framework of mobility paths, planted pockets, recreation surfaces, lighting, and art support infrastructure including a mural program across all the major surfaces of the landscape, to collectively re-frame and re-order the landscape. Each layer of the built environment plays different roles in collectively allowing the framework to effectively compete with the omnipresence of the highways. Clearly scaled and signed mobility paths communicate entry and passage, plantings reveal life in an otherwise desolate context, recreation surfaces create destination and draw, pragmatic lighting illuminates key paths through the environment, while architectural lighting of the viaduct as well as massive murals de-familiarize the structures of the viaduct and turns them into 'something else'. Within this layered landscape, a water management landscape that reveals yet contains trash is not perceived as overlooked or deleterious because the overall construct of the environment is layered with 'cues to care' as introduced by Nassauer. Furthermore, this landscape benefits from an overall lack familiarity that nearly anyone would have had for the space in general. The site had been disconnected from (legal) access for decades and therefore carried no burden to conform to a collectively preconceived 'proper' landscape image.

Perhaps this last point raises a convenient launching point for daylighting the messy infrastructure systems that have been erased from the city. Perhaps sites that have been most relegated and cast aside, like industrial and infrastructural territories, are now the sites with the greatest latent potential for such a re-introduction. Some of the most successful and now seminal examples of Nassauer's goal to implement wild into the built environment reinforce this idea, at least superficially in reconstructing the acceptable image of landscapes in the city. The High-line, a former inaccessible elevated rail line in NYC, and Fresh Kills, a formerly inaccessible land-fill also in NYC, have both succeeded in not only re-introducing novel landscapes into a city, but achieving new monument status by doing so. And by doing so, these celebrated landscapes have begun to renormalize the phenomenon of the urban wild in infrastructural landscapes. Smaller examples of similar landscape ambitions are now re-appearing in areas of more conventional urban fabric. In this way, the lack of a pre-existing and pre-subscribed collective landscape image has liberated these landscapes to take on new value to the city. Perhaps the daylighting of messy urban ecology systems like industry, utilities, and waste can follow a similar entry back into the city through the now unknown and uncharacterized spaces made by infrastructure and industry in the city. By finding an entry back into the city, perhaps messy urban infrastructure systems can enter back into urban legibility and back into metropolitan consciousness.

ENDNOTES

1. Allan Sekula, *Fish Story* (Rotterdam: Richter Verlag, 1995).
2. Matthew Gandy, *Rethinking Urban Metabolism: Water, Space, and the Modern City, City*, Volume 8, No. 3, 2004.
3. Kelly Shannon, "Eco-Engineering for Water: From Soft to Hard and Back," *Resilience in Ecology and Urban Design*, Springer, 2013.
4. Joan Iverson Nassauer, "Messy Ecosystems, Orderly Frames," *Landscape Journal*, vol. 14, no. 2, 1995.