## The Container Stacking, Packing, And Moving The World

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An 8,100 TEU Evergreeen container vessel docked in the Port of Oakland / Photograph by Charmaine Chua (2014)

If, on any given day, you left the feverish grids of downtown Los Angeles and took a drive down the litter-strewn Interstate-110 towards the Port of Long Beach, you might find yourself crossing the Vincent Thomas Bridge into Terminal Island. Flanked on either side by a string of trucks shaking the ground and choking the air with smog, this is the landscape that would greet you as you crossed the narrow waterway of the port: portal cranes, each painted with the trademark colors of their companies, would tower high above your head, capable of unloading container stacks rising 200 feet into the sky. Their gantry beams would fan out in a symmetrical row along the docks; candy canestriped for Evergreen along one berth; Maersk blue across the channel. A massive cargo ship might be pulling into port carrying over 100, 000 tons worth of clothes, shoes and electronics, while other vessels wait to be unloaded at berth. In the container yards below rows and stacks of brightly painted containers closely resemble the city grid you just left behind, boxed stacks marking out roadways that glide with the swish and sweep of stowage operations. Warehouses that have stood at the docks for decades are moving inland, the older ones razed to make way for infrastructures that more quickly deliver goods into the city. Trucks line up for hours at the port gateways. Railway lines snake across the landscape, crawling inward into the hinterland. Human life, if visible at all, is encased in windowed vehicles and regimented movement; more an

appendage to a vast machine than lively labor itself. Around the world, these infrastructures of circulation follow similar spatial arrangements, fanning the space of commodity distribution well beyond the port of entry and out into the sinews of the city. Few who live in port cities today recognize their urban spaces as centers of logistical processing. As lives and property values move away from industry and toward financial centers, logistical life has become peripheral to the imagination of the metropolis. Yet, a single object is responsible for shifting our urban topographies away from the port: the utilitarian, extruded geometric rectangle known as the shipping container.

In this article, I ask how the container as architectural object has become a political infrastructure, creating a calculable system of material processing that has enabled an entire reassessment of how, where, when, and for whom goods are made and moved. The suggestion that a single steel box could be the progenitor of monumental spatial and temporal shifts seems almost scandalous: what, after all, could be more innocuous than a box? By definition, it is an object whose utility is defined through its negative dimensions: a box is more useful for the space it does not occupy, rather than what it is; a geometrical form defined only in relation to its content.

Yet, this negativity is precisely the locus of the container's potential. By offering the world of commodity production the gift of a uniform box into which a vast array of goods could be safely stored and moved, the container standardized a previously unwieldy and costly world of transportation into a system of formal geometry. The modularity of the box facilitated stacking in ships and an easy transfer of goods onto truck or rail, enabling intermodal forms of transport. Its uniformity allowed for the predictable tracking of goods through computerized systems and bills of lading. Most of all, its transferability into different infrastructural contexts made it possible to conceive of a largely diffuse, spatially fragmented supply chain as a singular entity, one that allowed the tracing of both material movements and profits from a good's point of departure from the factory to its purchase on the shelf.

As a figure of innovation, then, the container enabled two major shifts in the philosophy of industrial design: First, the modularity of the container instituted a quantitative design by which the unpredictable elements of movement could be controlled and calculated. Second, even though the container appears to be a single, discrete object, its usefulness hinges entirely on its modular application across transportation modes. As such, the container is not singular thing but an infrastructural system, whose implementation sought to provide the material conditions for exchange and consumption across both space and time.

Despite the container's ubiquity across today's urban landscapes as a figure of hypermodern mobility and innovation, it did not come into international use until 1966. The container was a material and structural response to profitability concerns after the 1958 recession. As factories experienced a falling rate of profit, businessmen envisioned quicker delivery as a way to reorganize supply chains into more profitable forms. In 1956, self-made trucking magnate Malcolm McLean successfully inaugurated the innovation of the container by loading a tanker named Ideal-X with 58 containers he had designed to shift easily among ships, trucks, and trains. At the time, half the costs of freight were centered on the intermodal transitions between these vehicles: shifting loose cargo by the banana bunch or fabric bolt was time and labor intensive. By boxing everything up into packable and stackable forms, Mclean's innovation allowed these

costs to drop \$5.83 to 15.8 cents per ton (Marc Levinson, "The Box"). The container had become a calculable architecture that insulated goods from the incalculability of all forms of possible disruption, from snow and storms to damages en route and delays from labor shortages. It thus provided an unpredictable world of transport with a quantifiable, predictable form of management: one that could deploy economies of scale and geometric interchangeability in the service of reducing delivery times and costs.

Crucially, as a single unit the container had no value or economic potential without the infrastructural support of a vast distributional network of trucks, cranes, and port terminals to enable its transferability. The global extension of intermodal infrastructure seemed only a distant possibility until the Vietnam War, when Mclean's company Sea-Land was contracted to ship war materiel and supplies to a region otherwise deeply inaccessible to U.S. troops. By 1965, a rapid buildup of military forces and an inhospitable geographical landscape had created a logistical mess: major backlogs and port congestions had caused food shortages and a glut of military supplies, augmented by a lack of infrastructure that could support the on-time delivery of food and equipment.



A 40-foot Evergreen container is gently lowered by a spreader device onto a truck chassis in the Port of Hong Kong / Photography by Charmaine Chua (2014)

Sea-Land not only provided and funded the intermodal means for showcasing the container's unitized efficiency, but also demonstrated that, by stocking outbound containers returning to the U.S. with goods from Japan, high capacity containerization could be fully utilized to not only reduce costs, but also create profitability. Witnessing the container's potential allowed the army supply operations general Frank Besson to later report to Congress that containerization was not "just another means of

transportation," but an object whose full benefits could "only be derived from logistic systems designed with the full use of containers in mind" (Levinson, "The Box," p. 247).

As object, then, the container was designed with an encompassing logistical vision, one that was and continues to be global in its ambition. To fully benefit from containerization was to permit the conscious molding and manipulation of large-scale physical environments, from the dredging of sea beds to the destruction of forests. It is no surprise, then, that the container's global rise is entangled in a history of colonial occupation and war: The totalizing ambitions of containerized trade reveal the imperialism at the heart of the global expansion of distribution. These spatial encroachments soon afforded suppliers and manufacturers with new horizons of global mobility. By the 1970s, container shipping had become so cheap, efficient, and resilient, that corporations began to treat territorial space itself as a fungible commodity, moving industries from one cheap labor source and real estate location to another, seeking ever lower production costs in far-flung locations.

Today, over 90% of world trade travels across the sea. Workers across the global supply chain are pitted against each other in ways that increase the competition for scarce jobs, drive down wages, and exploit wage differentials between the North and South. Containerization thus produced a global imaginary of trade that relied at once on economic inequality and difference, and on a logic of abstraction that understood radically different regions of the world as spaces to be optimized and exchanged in service of logistical efficiency.

To frame the changes afforded by the container solely in terms of its manipulation of space, however, would be to capture only a fraction of the impact of containerization. The container not only aided capital's hypermobility; it also altered the relationship between production and time by changing the calculus of how manufacturing was calibrated to the supply chain. The morphological properties of the container allowed for more predictable planning of storage, production, and distribution cycles. Computers and algorithmic planning, on the rise at about the same time, worked together with the container to inaugurate the just-in-time organization of inventory and delivery systems: algorithmic tracking generated models that could predict what customers want, and intermodal containers ensured they could be delivered to customers at the time they were needed.

This new sensitivity to precise time scales allowed manufacturers to avoid surpluses and buffer against shortages. The 'unproductive', 'dead' time during which products usually had to sit on warehouse shelves was eliminated. The container afforded temperature-controlled shelter and protection for goods both perishable and nonperishable, maintaining the quality of products even as they travelled vast distances. Limiting overheads mitigated risks of interruption along the transit path. 'Fault tolerance' was built into increasingly 'resilient' logistical systems that establish acceptable ranges of error.



In solidarity with Palestinian workers, activists from the Block the Boat – LA coalition block a Port of Long Beach terminal entrance where the Israeli-owned Zim shipping line operates shortly after Operation Protective Edge lay siege to Gaza. The blockade succeeded in severely delaying the arrival of the Zim Savannah / Photograph by Charmaine Chua (2014)

The container serves thus not only as a delivery vehicle but a warehouse, a refrigerator, and management technology that serves to delay or accelerate the provision of goods to comsumers and manufacturers as they need it.

While the containers' modularity is precisely what has permitted the phenomenal increase in the quantity and scale of what is transported and produced, its staid metal walls also bring about the radical opacity of its contents. Allan Sekula best illustrates this point when he writes that "a crucial phenomenological point [about the containerization of goods in harbors] is the suppression of smell. Goods that once reeked – guano, gypsum, steamed tuna, hemp, molasses – now flow or are boxed" (Allan Sekula, "Fish Story"). Where it was once immediately apparent what ships were carrying, today all that is visible is the tin box itself. Containers may just as well be smuggling cocaine in sacks of rice, undocumented immigrants, and illegal arms as they might be carrying teddy bears and electronic parts.

To list these objects in a string may seem to problematically produce an imaginary in which their specific social relations and histories become virtually equivalent. But this is precisely the point of the container's force of abstraction. With the feverish expansion of carrying capacities that have come with the recent onslaught of 'mega-ships,' hundreds of thousands of containers can come into port at the same time. Complete surveillance is impossible. Shipping manifests have to declare the contents of a container, but these are notoriously unverifiable, and lying about the contents of a container is par for the course. Since the container is first and foremost a quantitative infrastructure, surveillance becomes ancillary to the ability to measure, control, and forecast the future of the containerized economy.

The container's ubiquity and power of abstraction necessitates erasing the particularities of the commodities it encloses, so that national security has to work against itself in order to ensure efficient flows. In 2007, the senate defeated an amendment to a Homeland Security Bill championing 100% container scanning at all ports within five years, turning instead to a strategy of risk management. As Deborah Cowen points out in The Deadly Life of Logistics (2014), the tacit admission that full surveillance is not only impossible but undesirable, points to the tension between the state's efforts to secure territory and ensure commodity circulation at the same time. In a world of fast flows, the nondescript, morose abstraction of the tin box not only secures and protects its contents within, but also systematizes a form of concealment that hides the social relations of production, and the exploitation of labor congealed in the products it traffics. What is inside does not matter; only that it flows.

To aid this flow, ports move out of cities (or vice versa) and into the outskirts. They creep across vast tracts of land, dotting the landscape with the containers and warehouses that closely resemble computer motherboards when viewed from above. Cities become defined by their ability to process and circulate goods and things. The haphazard liveliness of old ports and the economies around them have been erased, replaced by heavily securitized industrial spaces. Containerization has made demands on urban infrastructure in ways that impact the most vulnerable populations at the fringes of the city.



Empire Logistics is an interactive mapping project begun in 2009. As a collaborative initiative, Empire Logistics maps the global supply chain through research that articulates the infrastructure and 'externalized costs' of the international flow of things. This map details the logistical infrastructures in and around Los Angeles.

The Alameda Corridor, for example, is a rail cargo expressway that links the ports of LA and Long Beach to a transcontinental rail network, cutting a 10 mile long, 33 feet deep open trench through Compton, Lynwood, Vernon, and other predominantly working class, Latino and/or African-American neighborhoods.

This is why the radical collective L.A. ONDA refers to the Alameda Corridor as a "wound," a "reminder of the symbolic and material violence etched into our city's history of capitalist development" (L.A. ONDA, "How to Stop a Wound From Bleeding). If the fetishization of the container, viewed in its proliferation as residential or retail unit in trendy urban neighborhoods from London's Shoreditch to New York's Brooklyn, is a romance with the generalized fantasy of global cosmopolitan movement, we would do well to remind ourselves that the freedom with which containerized commodities now cross our borders and into our streets is a freedom foreclosed from many who are displaced as a result of the logistics economy's immiserating tendencies. The container, as a form of material abstraction predicated on the mystification of the distribution process, therefore, articulates a peculiar relationship between openness and closure: goods can travel as freely as they want, people cannot.

It is perhaps the increasing exposure of this contradiction that explains why we have witnessed a resurgence of protests targeting the chokepoints of containerized flow in recent years. Some prominent examples, at least in the logistics empire of California, have been the Occupy shutdown of the Port of Oakland in 2011; the blockades of Israeli Zim ships across the U.S. West Coast by pro-Palestinian activists in 2014; and the May Day work stoppage of Oakland's International Longshore and Warehouse Union (ILWU) local in solidarity with Black Lives Matter in 2015. The desire to disrupt business as usual and stop capital in its tracks has often been the express goal of these movements. Whether or not these stoppages effectively interrupt capitalism as a totality remains a more complicated question. But what the popularity of the disruption tactic may suggest is that relations and tissues of coalition and solidarity are being built through a shared experience of alienation; one whose symbolic and material face takes the form of the container and its associated infrastructures of capitalist flow.

Alone, this box is nothing more than corrugated iron or steel. However, as a symbol of the vast, and vastly dispossessive global economy, as an index of just how 'disruptive' innovations can be to the landscapes and people around them, the container is best understood not as a thing in itself but as part of a larger system of global capital, as well as a conduit for the social and political forms that are organized around its transportability. To take it as a synecdoche of logistics is thus to understand that its effects extend into lives we cannot see. Glancing at the grand vista of a massive ship coming into port, we can understand our optical experience to be only one slice into the intricate, infinitely sprawling structure of logistics that we often do not see at all, but whose tentacles reach deep into our collective spaces of habitation. The container is thus in some sense both an epoch-making design object, and an imaginative opening. It begs us to look beyond or within the banality of the box, and outward into the myriad ways that circulatory systems become wounds on our lives and architectural landscapes.