Architecture on the Move: Towards a Theory of Replacing

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Many of us are rarely in one place for very long these days, much less in place at all. We are able to move great distances over actual land and through virtual space, whether by choice, in response to natural catastrophe, or under duress of political crisis. Yet we cannot deny that we still care about being in place, that we need to be housed, and that we want to belong somewhere. The changing definition and experience of place has interested theorists, historians, and dwellers across the centuries, particularly during times of spatial expansion and its accompanied social transitions. According to Michel de Certeau, place acknowledges an ordering system realized through spatial practices that locate "the inscription of the body" in that very order. [1] Places are thus embodied by specific human passages and pauses through space. Likewise, for art historian David Summers, real space can neither be defined outside of human social experience nor apart from human orientation, cardinality, and making, although these kinds of embodied spatial experiences are increasingly under threat by modern Western globalization. [2] Such an expansive conception of space offers modern dwellers endless pathways that relentlessly disperse all reliable and sustainable placeholders. As we give into, or are pushed into, a transitory way of life, whether over land or internet, in which our movements across an unbounded multitude of places are increasingly possible, our experience of spatial boundaries have become extraordinarily challenged by numerous kinds of border crossings.

Exploring architecture's capacity to support autonomous mobility, Andrea Zittel began creating her series of *Escape Vehicles* in 1999, inspired by conventional trailer units. A steel pod, able to fit one or two people at most, serves as an isolation tank that can be situated anywhere or hitched to a vehicle and transported from site to site. Inside, owners have personalized the tiny spaces to accommodate their specific needs within a compressed and flexible personal living space. Alternatively, for others wishing to combine aspects of both escapist and integrated living, Zittel's 2001 *Cellular Compartment Units,* with their small spaces each designated for distinct functions, allow users to transform one room into a multi-space habitat. These designs form a part of an ongoing series of *Living Units,* begun in 1992 as compact living systems with built-in dining, washing, and sleeping structures. Zittel's art and design practice, "A-Z Administrative Services," specializes in custom-building these kinds of individual modules, made of lightweight plywood panels and steel frames that fold in and out like sides of a box for compact transportation, and that economize space while also affording maximum variation. To be in place, Andrea Zittel's projects suggest, is to be given a set of parameters that are standardized and familiar on the one hand, and flexible and variable on the other, so that spatial situation mediates between autonomy and integration as each imbricates the other.

Fantasy nonetheless runs rampant in Zittel's designs because inhabitants can choose when, where, and how to isolate themselves, and for how long. Zittel's *Deserted Islands,* created around the same time as the *Escape Vehicles,* offer a scenario of escape without the material realities of sustained or forced social isolation. Whereas composite parts typically

come together to form larger modular structures or community housing projects, Zittel's individually deserted islands transform the component itself into a whole unit that remains disconnected and unplugged from its situated docking site. Again, refuge here is chosen and social reintegration is always an option. Such individualized mobility points towards an idealized conception of independence, and by extension a release from social moors and restrictions. Taken to its extreme, it means living off the so-called grid, under one's own terms alone--an ultimate narrative of freedom prevalent in the United States since settlers began imagining the open frontier. Yet what is most important to recognize in this kind of project is Zittel's attention to the simultaneous impulses to individualize and cohere, detach and reconnect--impulses that we must also understand as the privilege to get away and to come back, but that can be supported architecturally through mobile and modular flexibility.

If we accept our fleeting spatial situations, at times welcoming our detachments while at others bracing ourselves against our dispersions, then what kind of spatial and social integration can we experience, and how? For Lot-ek's Ada Tolla and Giuseppe Lignano, detachable modular structures must explicitly engage with, and not escape from, modern spatial experiences of dislocation and temporary situation. Named in opposition to the high-tech operations that continuously discard and upgrade its materials, and instead invested in the rehabilitation of modern industrial and technological by-products, Lot-ek reuses structural frameworks and reintegrates them into back into already functioning modes of passage. "That is the world we take from, the world we import into our architecture," Ada Tolla affirms. "The interaction of the human body with that world is something that we started investigating from the beginning. It comes from playing with these objects that are not designed by us, but that are sort of given." [3] Lot-ek's emphasis on the given suggests not only a environmentally responsible mode of being and building in the world and an acknowledgement of our implicit embedment within nomadic infrastructures, it also recognizes all the ways in which we can intervene from within those systems of mobility to reintegrate spatial situation within moments and structures of dwelling.

Lot-ek's given form is the shipping container. First introduced in the 1950s and measuring twenty-feet long by eight-feet wide by eight-feet tall, the International Standards Organization (ISO) shipping container is a steel box that can be efficiently stacked to transport goods around the world on standard freight ships, themselves an exponentially expandable container for containers. Lot-ek's 2003 *Mobile Dwelling Unit* simultaneously resurrects the container as a personal dwelling space and engages with its industrial infrastructure in order to propose a global, nomadic habitation system. The units can be shipped around the world along maritime pathways, meeting their inhabitant at their next destination, already full of their belongings. Cuts in the metal wall of each container allow smaller spaces that are pushed in for transportation to fully extend upon the *MDU's* momentary situation, allowing all work and living spaces to become functionally accessible by the inhabitant upon demand. Once it reaches its destination, the *MDU* can be loaded into pre-established, open frameworks. Located at maritime ports, these multi-level steel grids afford both horizontal and vertical loading of *MDUs* in order to temporarily build and then easily dismantle apartment-like tower blocks. Connective corridors contain power, water, and sewage systems, as well as stairs and elevators that allow passage between the units.

By depending upon as well as intervening tactically within already existing mobile networks, Lot-ek offers the conditions for continuously mobile dwelling that include temporary spatial docking and momentary community formation. Their modular and nomadic dwelling system provides a fixed, yet open, public frame in flux according to the comings and goings of individually-functional private units. "Like pixels in a digital image," Lot-ek describes, "temporary patterns are generated by the presence or absence of MDUs in different locations along the rack, reflecting the ever-changing composition of these colonies scattered around the globe." [4] These larger structures are greater than each of their parts, since Lot-ek's project emphasizes the potential for community formation, however temporarily unified and vulnerably whole, in the face of the flickering presence and absence of different individual habitations at any given time.

> As bodies and the individual structures they inhabit move towards and away from each other, returning to and reforming social networks, architecture's challenge is therefore to sustain portability while affording the momentary pause that can be reintegrated and replaced within different sites over time. Informing mobile architecture's capacity to offer momen-

tary spatial situation, reintegration and replacement together operate through the renewal of established materials across growing global pathways, as well as through the re-situation of structures that disconnect and reconnect on each specific site, allowing for both ongoing mobility and temporary grounding. Whether responding to or anticipating a dispersed spatial experience that is either chosen or forced, temporary, modular, and nomadic architecture keeps its inhabitants moving out of place, while also allowing them to pause in place and with others.

Indeed, nomadism has for a while now become the material and conceptual operation through which all kinds of spatial, social, and discursive sites are unmoored from their fixity. As conceptualized by Gilles Deleuze and Félix Guattari in their collaborative *A Thousand Plateaus,* "nomadology" entered critical American discourse with its translation into English in the mid-1980s. For Deleuze and Guattari, "nomad space" is smooth, open-ended, deterritorialized, heterogeneous and shifting, as opposed to the sedentary, undifferentiated "striated space" confined to fixed points between preset paths and determined by the Cartesian grid. As "a space of contact, of small tactile or manual actions of contact, rather than a visual space," nomad space articulates a human trajectory rather than an abstract relation between moving bodies and changing sites. [5]

For Deleuze and Guattari's nomad, "every point is a relay and exists only as a relay. A path is only between two points, but the in-between has taken on all the consistency and enjoys both an autonomy and a direction of its own." [6] The nomad's mode of dwelling is thus determined by these ongoing passages. Unlike the migrant who is defined by his directed motion from beginning to end points, Deleuze and Guattari's nomad does not transition from one site to another, but rather takes deterritorialization as, paradoxically, a spatial territory. Identifying this phenomenally multi-directional movement towards and away from ever-defining spatial sites, as well as an autonomous and in-between stasis, nomadism is "a stationary process, station as process." [7] According to Deleuze and Guattari then, this deterritorialized territory of the nomad is localized and yet not delimited, or in other words, specifically sited again and again over time, and so not fixed. The nomadic site, in effect, can be conceptualized not only through, but as, the operation of spatial situation.

The underlying assumption here is that nomadic deterritorialization can be chosen, or is at least the favorable way of thinking past boundary restrictions. In the early 1990s, however, postcolonial and feminist critiques of Deleuze and Guattari's concept of nomadism instead brought attention to the material realities of other kinds of nomads forced from their homes, invisibly outcast and socially illegitimate, thus challenging the uninhibited, borderless mobility conceptualized as intellectually radical, yet ultimately only experienced by a select few. While nomadism conceptually re-imagines spatial specification, releasing all kinds of fixed sites from their limiting frameworks, a return to material specificity was at the heart of the cultural critiques raised. What became unavoidable was the lack of racial, gendered, and economic details in Deleuze and Guattari's mystified, generalized and conceptual notions of the deterritorialized nomad. [8]

In the late 1990s, however, cultural revisions of nomadism began to emphasize the relational implications of nomadic thinking where fluidity and fixity, movement and stasis, globalization and locality, metaphor and materiality could be intricately interrelated--one affording the other. The implicit challenge is now to understand the mechanisms of the nomadic relationship between fixity and fluidity in order to consider the ever-problematic relation between its theoretical and material operations. So without fully celebrating our nomadic release from territorial borders or longing nostalgically for a return to tightly localized communities: what does it mean, now in light of our multiple movements and temporary situations, to be in place? Who gets to choose to be spatially situated, for however long, and who has that situation chosen for them?

Framed in paper tubes that are made out of rolls of recycled paper cut into strips and saturated with glue, Shigeru Ban's collection of emergency shelters covered in plastic sheets may seem a far cry from either Zittel's designs or Lot-ek's structural system. Yet quick construction based on reusable forms and given materials, as well as attention to mobile situation and temporary community building are also the ultimate goals of Ban's paper tube constructions. In fact, the social stakes of flexible architectural reintegration could not have been higher, when in the spring of 1995, the Japanese architect Shigeru Ban contacted the United Nations High Commission for Refugees to propose a modular system for temporary, easy-to-assemble shelter for the more than two million Rwandans fleeing genocide in Tanzania and Zaire. Responding to the worldwide call for refugee shelters, Ban refigured his paper tube buildings that he had previously developed for high-end commercial designs. Attending not only to the privilege of chosen mobility, modular architecture's quick, standardized, and efficient response to forced dislocation systematizes the interspersion of moments of grounding within ongoing movements, whether voluntary or involuntary. Yet within the context of emergency relief, modular operations affirm the spatial reintegration and replacement of social formations specifically by others for others. Pushing designer-client relations to an urgent extreme, social engagement and responsibility must therefore

be translated into material actuality, as modularity's mediation between structural autonomy and dependence meets the need for immediate shelter and temporary community.

Ban's paper tube is made out of recycled paper, cut into strips, soaked with glue and wound around a metal rod that, once released, creates a hollow core. They are inexpensive, can be easily produced in a variety of diameters, densities and lengths, are quickly replaceable and can themselves be recycled, thus producing almost no material waste. [9] Utilizing the standard four-by-six-foot plastic sheet issued to all refugees, Ban's structure addressed the prevalent problem of local deforestation instigated as refugees cut down wood to replace the valuable aluminum poles initially provided by the UNHCR but sold by the refugees instead. Paper tubes are inexpensive, made from recycled pulp, not sought after, and thus unlikely to be sold. They could also be produced on site, reducing transportation time and allowing dwellers to take part in the construction and individual variation of their expandable structures. By intervening into the UNHCR's already existing infrastructure while also responding to particular onsite conditions and making the appropriate adjustments, Ban's architectural system integrated material operations with contextual specificities, thus offering the potential for temporary social reintegration, however vulnerable, tentative, temporary, and capable of being reformed and replaced over time. Like Zittel's attention to individualism in combination with standardization, the ease with which Ban's shelters could be constructed allowed those in possession of these materials to build, extend, detach, connect and vary their own temporary living spaces. And like Lot-ek's emphasis on existing structures and coordinated pathways, the sustainability of a modular response system built on these paper tubes can be defined by its ability to fit into already existing infrastructures of emergency relief, while also addressing present problems and revising material conditions accordingly.

> While by no means acting as the only examples, these temporary, modular, and nomadic structures and practices together map the limits of a territory within which a program of being in place while also on the move can be actualized and through which a theory of replacing can be developed. Combining functional aspects of unitary detachment and integrated synthesis, mobile architecture considers the situated connection of component parts and their means of coming together alongside the independence of disconnected individual containers and their possibility of reconnecting. With return, renewal, re-visitation and replacement in mind, such structures can be reintegrated into already active nomadic systems present within each specific spatial landscape, however industrially or technologically dispersed. As units are attached to and detached from each other and from larger situated frameworks, to be embodied and re-embodied over time, the pathways of dwellers in turn determine the plan and construction of modular habitations. So the autonomy of individual parts and the dependencies between them together support ongoing processes of both structural and phenomenal reintegration, through which temporary, contingent, and unexpected social organizations may coalesce, to be replaced over time.

Imagined and offered by Andrea Zittel, Lot-ek, and Shigeru Ban, mobile architectural practices, that are temporary and modular, suggest that in order to be and belong in one place over time, we have to incompletely and partially replace the ways in which we were just situated, by renewing and reusing material constructions, and by reforming and resituating connections with others. As a method and system of being and belonging, replacement identifies an infinitely extendable act of being in the place of something or someone again, without fully taking that site's or that body's place, and thus not subsuming, destroying or erasing what was there.

According to such a paradigm, to be in place is to always be in the process of re-situation, where spatial substitutions offer moments of social reattachment and engagement. Such a proposal is deeply aligned to performance theory and practice, as both have intervened into the discipline and practice of architecture. As the current terminology of "performative architecture" attests, a shift has been articulated in architectural theory so that buildings are no longer only conceived as objects, but rather are designed and constructed according to what they do, or how they interact with their environmental site while also anticipating their inhabitants' changing needs. Beyond its initial attachment to the theatrical event and defined most broadly as the study of embodied experiences in specific spaces and over time, a performance-based methodology attends to both temporal and object-based frameworks of knowledge and experience.[10] As such, performance acknowledges and can negotiate between the structures and processes of being in place. Performance theorist Elin Diamond has defined performance as "always a doing and a thing done. On the one hand, performance describes certain embodied acts (and/or the watching self). On the other hand, it is the thing

done, the completed event framed in time and space and remembered, misremembered, interpreted, and passionately revised across a pre-existing discursive field."[11] Performance theory pays close attention to the unfolding of cultural activities, and it also pauses to consider moments of stillness amongst and within those actions. It is a way of radically destabilizing our conception of fixed forms while simultaneously attesting to the necessity of the form itself, however variable over time. Indeed as building practices have responded to the increasing flow of people, goods, structures, and capital, architecture must encompass both spatial situation and flux, and thus, argues Stephen Cairns, "comes to be imbricated with the effects of a particular kind of movement that carries ongoing, multiple, intermittent and intensified investments in place."[12] Across these multiple investments, a theory of replacing affirms precarious moments and sites of material reconnection between bodies and the various spatial environments in which they are momentarily enmeshed as each moves towards and away from others.

Whether we are considering the mobile architecture of escape vehicles, modular cellular compartments, shipping containers and docking sites, or emergency shelters, the common thread amongst all these endeavors is most simply that component parts come together to form and reform whole units, or come apart to afford voluntary mobility or to support involuntary upheaval. Inhabitants seek personal shelter as well as shelter with others, and in some cases from others. Re-placing--or being again and again in place--in any of these scenarios is resolutely a socially engaged process, but the one that conditions and coordinates individual choice through existing materials, technologies, frameworks and policies for moving people around and for situating them--forcing, luring, offering that they be in and then out of place. Such a program of replacing becomes possible if we can recognize how autonomy from and dependence on those infrastructures are negotiated both structurally and phenomenally--a negotiation that operates through the participation of intended dwellers and volunteers, and that relies on both the availability and the accessibility of existing social, economic and political factions. In turn, we must also acknowledge that this reliance is itself inconsistent and unstable, so as to determine where we can intervene and where we cannot, and to propose what may and what may not be capable of reintegration and replacement.

ENDNOTES

1 Michel de Certeau, *The Practice of Everyday Life,* (Berkeley: University of California Press, 1988), 130.
2 David Summers, "Introduction," *Real Spaces: World Art History and the Rise of Western Modernism,* (London: Phaidon, 2003), 15-60.
3 Ada Tolla, "Ada Tolla and Giuseppe Lignano Speak with Christopher Scoates," *Mobile Dwelling Unit,* (New York: D.A.P., 2003), 102.
4 Lot-ek, *Mobile Dwelling Unit,* (New York: D.A.P., 2003), 62-63.
5 Gilles Deleuze and Félix Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia,* trans. Brian Massumi, (Minneapolis: University of Minneapolis Press, 2003), 371.
6 Deleuze and Guattari, 380.
7 Ibid., 381.
8 For example, Christopher Miller has pointed out that Deleuze and Guattari failed to cite non-Western, non-European sources, and were often factually wrong when they did, even as they took inspiration from the figure of the non-Western nomad. As non-representational and non-anthropological, Deleuze and Guattari's concept is for Miller primarily "an intellectual nomadism and a nomadism for intellectuals" which denies the material realities of those for whom a real physical spatial deterritorialization applies. Miller warns that such a fantastic and abstract celebration of non-Western nomadic experience runs the risk of glorifying cultural primitivism. See: Christopher L. Miller, "The Postidentitarian Predicament in the Footnotes of A Thousand Plateaus: Nomadology, Anthropology, and Authority, " *Diacritics* 23:3 (1993), 10.
9 Matilda McQuaid, *Shigeru Ban,* (London: Phaidon, 2003), 14.
10 See Marvin Carlson, *Performance: A Critical Introduction* (London and New York: Routledge, 1996); Jon McKenzie, *Perform or Else* (London and New York: Routledge, 2001); Shannon Jackson, *Professing Performance,* (Cambridge, UK: Cambridge University Press, 2004).
11 Elin Diamond, *Performance and Cultural Politics,* (London and New York: Routledge, 1996) 1.
12 Stephen Cairns, "Drifting: Architecture/Migrancy," *Drifting: Architecture and Migrancy,* ed. Stephen Cairns, (London and New York: Routledge, 2004) 42.