TOWARDS CRITICAL RESILIENCE: LEARNING FROM THE HISTORY OF POST-TRAUMA URBANISM

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INTRODUCTION: RESILIENCE AND THE HISTORY OF URBANISM

As we begin a conference entitled "History Urbanism Resilience," I see my role as articulating some of the ways that the concept of "resilience" contributes to the history of urbanism—and to explore how the history of urbanism helps complexify our understanding of resilience. Resilience as a term has become both increasingly ubiquitous and increasingly contested. My remarks today will both explain this and, ultimately, defend the value of the concept--as long as we approach it critically. A first observation: putting the word "Resilience" in the title of the IPHS conference seems to have worked. The word appears in the names of 12 different conference sessions, and 35 separate papers use the word in their titles. So, either "resilience" is an inspiring frame for our thinking, or many of us are just extremely dutiful--or strategically adept--at providing conference organizers with what we think they want to hear. I suspect that there is some of each at work here. More importantly, this combination of utility and malleability accounts for much of the burgeoning appeal that the term "resilience" seems to have. Are we all talking about the same thing? Probably not, though there is certainly some reasonable degree of commonality. A quick perusal of the titles in the IPHS conference program suggests that we are, collectively, applying the idea of resilience to architecture, communities, and metropolitan form, and that it is applied in many contexts of social, environmental and political change, frequently including sudden disruptions caused by disasters or warfare. In the spring of 2002, following on the 9/11 attacks in the United States, a colleague and I ran a semester-long colloquium that we called "The Resilient City: Trauma, Recovery, and Remembrance." We wanted to look back at a variety of traumatic urban events from around the world to see how governments and their citizens had responded. How did recovery from traumatic events get conceptualized and how did these events get memorialized? Did it matter whether the cause was earthquakes or floods or wars or terrorist attacks? In other words, what could we learn from the history of post-traumatic urbanism that might help us conceptualize what might happen post- 9/11? My colleague Tom Campanella and I commissioned a series of papers exploring how cities (and their citizens) had historically recovered from sudden traumatic events—not just from terrorism, but from other abrupt events such as earthquakes, tsunamis, and wars. We quickly learned that, while it was possible to chart something called "disaster recovery," that concept was hardly straightforward. In the past 200 years, virtually every large city in the world that experienced a disaster or war seems to have been rebuilt, no matter how extreme the level of destruction or loss of life.

From the immense losses suffered in cities such as Warsaw, Berlin, and Hiroshima during the Second World War to the total devastation of the earthquake in Tangshan, China—which may well have killed upwards of a half million people in 1976—cities came back.

In a world of nation-states (instead of city-states), there has been a new institutionalized form of what might be called caring-at-a distance. Since the late 18th century, cities have been much less likely to be left to fail on their own. The central leadership of a nation-state has, instead, invested in the restoration of its own damaged parts—and this pattern has been dramatically extended in the 20th century, with the tripling in the number of nation-states and the reduction in the number of widely dispersed empires. Coupled with corresponding rise of the global insurance industry (and re-insurance industry), and the rise of charitable donations (often linked to larger geopolitical strategies), post-traumatic urbanism had entered into a new phase of its history. Instead of the "lost cities" of the ancient world, we now have a planet where cities have been, almost inevitably, rebuilt. And, almost always, they get rebuilt in the same place as before—irrespective of underlying faults (and irrespective of whether those faults are geophysical or political). And--though it might take decades--most of these cities have indeed regained or surpassed the previous, pre-trauma, amount of building stock. Most reached their previous level of economic activity, and most eventually surpassed their pre-trauma population. Whether we are talking about Chicago's Great Fire of 1871 or San Francisco's famous earthquake and fires of 1906, or Tokyo following the Great Kantō earthquake of 1923 and the firebombing of 1945, famously destroyed cities are now still famous and much larger.

Still, to call such rebuilding of "urban recovery" does little justice to the profound complexity of the task. Saying that a city has "recovered" from traumatic destruction is hardly a neutral or simple judgment. Who gets to define it? Whose recovery matters?

All too much of the disaster recovery literature has chosen to ignore issues of politics and power, as if excluding such factors would somehow make the analysis seem more 'scientific'. I was recently asked to review a draft article, entitled "Resilience and Sustainability in Relation to Natural Disasters" proposed for inclusion in a major reference book. The 13,000-word study, rooted in perspectives chiefly drawn from engineering, touched on politics only in passing, and the only form of "power" mentioned referred to electricity. Historians know better, as do the planners, developers, service providers and city officials who work in such complex socio-political settings. Richly realized case studies of past struggles to overcome traumatic events reveal the intricate overlays between infrastructure systems and political systems.

Many accounts of disaster recovery processes rely on some version of the model developed in the 1970s based on analysis of chronologies of post-earthquake and post-hurricane aftermaths in the United States and Latin America. Traditional models of urban recovery can come close to describing what is happening in the built environment—this one identifies successive phases labeled Emergency, Restoration, Reconstruction I, and Reconstruction II. The chart provides a useful means for tracking such indicators as "clearing rubble from main arteries" and attaining "predisaster level of capital stock and activities," but everything here is treated as a single generalized aggregate of civic activity. The authors measured what could be most easily measured, and found that each of the four phases lasted about ten times as long as the previous one; a one week emergency would translate into a ten week restoration period, and a one hundred week initial reconstruction phase. (Since the scale here is logarithmic, the curves seem to cover roughly equal intervals.) The model captures a lot, but it is precisely what is missing here that underscores the psychic distance between simple *recovery* and more complex and holistic notions of *resilience*.

RESILIENCE IN STORIES, SYMBOLS, AND POLITICS

I see three principal things as missing from a more engineering centered model of recovery: stories, symbols, and politics.

First, many descriptive accounts of urban recovery processes fail to ascribe agency, or define it too narrowly. We learn a sequence of events, but we do not see who has led them, let alone with what motives. Do decisions merely transmit the will of the highest levels of the state, or do grassroots pressures sometimes matter? Who gets to tell the story of the trauma and who gets to frame the narrative of recovery? When is it a narrative of progress? When is it a tale of redemption? And when is it what Edward Linenthal calls "the toxic narrative"[1]—rooted in life-altering traumas that cannot be overcome? What role is there for community-based media—versus mainstream media-- in the articulation of the struggle and response to urban trauma? I have a current doctoral student, Aditi Mehta, whose entire dissertation explores this question, focusing on a comparison between Hurricane Katrina in New Orleans and Superstorm Sandy in New York. In the early 21st century, cities are full of bloggers and citizen journalists. Cities are stages for technologies such as low-powered FM radio and Wifi mesh networks. They host systems of social networking sites and offer opportunities for participatory documentaries. The media may have changed, but the underlying question is old and persistent: Whose voices matter?

Similarly, just as conventional recovery models assume some centralized direction and uniform experience that ignores the varieties of voice, so too do such models miss the power of symbolism. Strategically selected reconstructions of a destroyed built environment play particularly important roles in signaling to a traumatized public that positive change is taking place—that we will, in the near-ubiquitous phrase, "build back better." Conversely, however, the symbolic priorities may underscore an over-eagerness to return to the status quo ante; nothing more, nothing less. In other words, it is not just that rubble has been cleared or that some "pre-disaster level of capital stock" has been regained; it is that specific, culturally relevant, publicly visible, activities have resumed.

In post-Katrina New Orleans, for instance, despite the extreme levels of residential devastation, city officials made certain that the downtown Superdome was repaired in time for the start of the 2006 National Football League season. Similarly, six months before that, city and neighborhood leaders sent the message to the world that Mardi Gras celebrations would go on just as they had in the antediluvian past.

These matters of symbolism and story-framing point to a third element that conventional notions of "urban recovery" often miss: the politics of redevelopment. Narratives of resilience are a political necessity, but they are always contested. Which aspects of "recovery" get prioritized? Who decides the primacies for investment when there are so many choices? Who negotiates and controls the politics of redevelopment, and who benefits from available funding? Which places, and which people, lag behind? When funding comes from outsiders, which things do they prefer to fund?

Sudden urban traumas reveal key insights about the nature of a polity—not just the heroism of individuals, but the priorities of a society. Who rebuilds what, where, and for whom? Despite the differentiated landscape of urban recovery, we frequently ignore the obvious clues about narrative voice (or lack thereof), architectural symbolism, and political favoritism.

If "recovery" is an inadequate term to describe the complexity of post-trauma urbanism, perhaps the more multivalent term *resilience* might be more useful? At the time of our colloquia sessions in Spring 2002 on "The Resilient City," resilience was not a term one typically associated with cities. It was, instead, a term from psychology used to refer to the inner strength of certain individuals, and it was a term used by engineers to refer to the capacity of certain materials to return to their previous form following a perturbation. And it was also,

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increasingly, a term being used by ecologists to refer to properties of ecosystems that could be disrupted into non-equilibrium states. But the ecologists were talking about systems that were largely non-human (though certainly impacted *by* humans) so talk of non-equilibrium in ecosystems did not immediately translate into talk about socio-economic inequalities.

THE UBIQUITY OF "RESILIENT CITIES"

Our 'Resilient City' sessions proved to be productive intellectual testing ground for the concept of resilience. Eventually, in late December 2004, we released a book called "The Resilient City: How Modern Cities Recover From Disaster." Oxford University Press deserves some credit for timing the publication of the book to coincide exactly with the Asian tsunami--and then they got it into bookstores just in time for Katrina and the levee failures to hit New Orleans the following August.

By the time we completed the "The resilient city" book—reacting to what our various chapter authors had found—we were ready to question all three words of the title—even the "the". The book didn't have a question mark in the title, but I've added one here to underscore the kinds of questioning we undertook. What constitutes resilience? Who counts as "the city"? And do the trajectories of cities share enough in common to warrant speaking of something called "the" resilient city—as opposed to a less catchy title like *Some Partially Resilient and Highly Differentiated Cities: How Some Portions of Modern Cities Recover from Disaster Better Than Others*. Still, I am far from ready to drop the analytical utility of the term *resilience*. Although in 2002 few urban leaders facing the aftermath of disaster were yet using the actual word 'resilience,' our collective analysis of historical cases suggested that resilience could be a helpful umbrella term that could combine three things: physical rebuilding, economic recovery, and post-traumatic emotional reconstitution. Still, whether by tracing the twin trajectories of East and West Berlin during the ideologically-driven urban interventions of the Cold War, or by examining the fate of Beirut after its Civil War, or Mexico City after the 1985 earthquake, or Los Angeles after the civil unrest of 1992, it was equally clear that urban residents within any given city have had highly differentiated experiences in the aftermath of traumatic events. Words such as resilience and recovery proved to be highly loaded terms.
They did not just connote some obvious return to a better prior state—at least not for everyone. If a place was profoundly unequal before disaster struck, any sense of 'bouncing back' could mean a return to similarly unequal conditions. A disaster, in this sense, was a window into the structural inequalities of a society at the moment immediately prior to when the disaster struck. In this sense, we concluded, resilience is not always a good thing.

Resilience is, however, a popular thing. My own quick examination of "google trends" shows that, over the last decade, the term *resilience* is even gaining ground on the reigning icon of ubiquity, *sustainability*. It is not just a generic growth in *resilience*, though; there is a particular interest in linking resilience and urbanism.

Over the last decade, the term "resilient cities" has spread like wildfire (or like water through faulty levees), though I think it largely emerged simultaneously in several places. Since 2005, there have been more than a dozen books with some version of 'resilient' and 'city' in the title. In addition to our book, centered on disaster recovery, there has been a book about responding to peak oil and climate change, one on how cities respond to terrorism and security challenges, a volume on the economic impact of 9/11, and a primer on reducing coastal city vulnerabilities.

The concept of "resilient cities" appears as a guide to good design practice, a comprehensive action plan for communities, a handbook for local governments, a civic movement, and even a book on the relationship between public libraries and resilient cities—written by a planner/librarian.

Books have been joined by multiplicity of conferences and conference reports, including the title of the 2013 joint AESOP-ACSP Congress, annual Resilient Cities events by ICLEI, and, of course, our current IPHS venture.

Foundations and international agencies have all jumped on board: MacArthur developed its "resilient regions" initiative; Rockefeller has made "100 Resilient Cities" its signature program, and the United Nations and World Bank repeatedly deploy the term.

As the diverse books and reports and conferences and initiatives suggest, the single concept of "resilient cities" can connote a focus on urban security and counter-terrorism efforts, or on economic growth, employment, and supply chain management, or on building technology to withstand physical threats, or on particular institutions that serve neighborhoods, or on enhancing strong communities and social capital, or on government responsiveness to natural disasters or on infrastructure adaptation to climate change. And of course it can also be about libraries! This enormous range suggests either that resilience is excessively malleable as a term, yielding wildly divergent discussions about cities that have little to do with one another, or that the pairing of "resilient" and "city" usefully recognizes connections among subjects that genuinely ought to be considered together. Perhaps it is a lot of each.

In late 2014, geographer Tom Slater, a well-known scholar of gentrification, labeled "resilience" as "the latest policy and think tank abomination to infect and paralyse the study of cities," noting that it "has become a research funding council priority all over the world." Slater's critique focuses on what he sees as the close connection between "resilience" as a seductive label and "neoliberal urbanism" as a dehumanizing and discriminatory practice. At base, Slater blames the notion of resilience for casting "an anesthetizing spell" upon low-income urban dwellers.[2]

A poster appearing in New Orleans in 2014--9 years after the devastation of Katrina--quickly gained notoriety in the twitterverse. On the poster, Tracie Washington from the Louisiana Justice Institute complains: "Stop calling me Resilient. Because every time you say, 'Oh, they're resilient,' that means you can do something else to me. I am not resilient." Washington's plea resonates with the academic language lamenting the alleged neoliberal capture of the term. Resilience, in this sense, describes the deliberate withdrawal of the state, coupled by complimentary (and complementary) reassurance that assistance from the state was not really needed. If non-elites are capable of coping on their own—forced into what is misleadingly called "self-sufficiency" because cannot rely on the state—this opens up terrain for additional forms of uncontested investment by the private sector. The language of resilience provides a seemingly empowering label for a process of double dispossession. First, low-income households are disproportionally victimized by a disaster and, second, they are again marginalized by the process of post-disaster investment.

Rather than dismiss the entire notion of resilience as no more than cover for cooptation by neoliberal disaster capitalism, however, I propose instead to embrace a notion of critical resilience. Historians of urban planning have long since found ways to disaggregate the experience of disaster recovery. Their accounts reveal both how elite interests gained disproportionately from many kinds of kinds of post-disaster investment, but also demonstrate how marginal groups attempted to cope, often revealing a deeply rooted resilience, even if it has not always been named as such. Let me illustrate this with two brief examples—one from 19th century Chicago, and one from 21st century Banda Aceh, Indonesia.

CHICAGO: URBAN RESILIENCE AFTER FIRE

The story of Chicago after the Great Fire of 1871 is usually related as a tale of boosters, with the post-fire landscape unleashing remarkable levels of economic growth. The new city thereby epitomizes the notion of disaster-as-opportunity. Yet, amidst the rush to rebuild, the city sought to require fireproof construction within a large swath of the city known as the "fire limits." By forcing everyone to construct new buildings out of expensive masonry, rather than repeat the pre-conflagration vulnerability of wooden dwellings, the city's well-intentioned rules threatened to price out many low-income residents. The Great Fire had destroyed thousands of worker-owned wood cottages, and these homeowners, many of them recent immigrants, could do no more than hastily erect wooden shanties. As historian Karen Sawislak put it:

If the city legally barred a property holder from rebuilding with wood, and he or she could not afford brick or stone construction, this site lost all value for its owner. A lifetime of work and savings might evaporate.[3]

Chicago's leaders had to sort out how to rebuild on a landscape of risk; increased regulation—banning wooden structures across the entire city-- would mean decreased affordability. And, in turn, the prospect of decreased affordability meant increased political pressure. Working-class Chicagoans viewed the proposed restrictions as something imposed by a cadre of downtown property owners who, already once-burned, wished to protect their investments by insisting that lower-income people should not build "fire-traps" anywhere else in the city. Moreover, Sawislak shows, some ethnic groups viewed the restrictions as designed by nativist proponents intent on undermining their ability to rebuild as an ethnic enclave.

Violent protests against expanding the "fire limits" disrupted the City Council meeting in January 1872. Faced with this backlash, the city caved. The Council voted not to extend anti-wood restriction across city, leaving much of the north side and southwest side open to woodframe construction and, of equal importance, also failed to pass enforcement mechanisms. Today, visitors and locals alike extol the remarkable rise of Chicago School architecture from the 1880s and 1890s but skip over the fraught uncertainties of the 1870s. The resilience of post-Fire Chicago thus has a split personality: an elite voicing rational pleas about the civic duty to build back better, and a working class that successfully fought to protect the value of its investment in wooden homes and neighborhoods. This worked fine for some working class owners, but overall this yielded rapid construction of a shoddy city. Immigrant labor from elsewhere flooded in and kept jobs scarce for local workers; housing prices went up, making the city unaffordable for many who had been renters prior to the fire. Taking resilience critically means assessing the impacts on all income groups.

BANDA ACEH: URBAN RESILIENCE AFTER TSUNAMI

Few disasters can compare to the devastation caused by the tsunami that struck the north coast of Sumatra on December 26, 2004. Triggered by a 9.1 magnitude earthquake in the Indian Ocean, immense waves — some more than thirty meters high[4] — swept through the Indonesian province of Aceh, leaving more than 163,000 people dead or missing, including 60,000 in the capital, Banda Aceh.[5] It was the largest sudden loss of urban life in a generation, comparable to only a few disasters in modern history.[6] More than 60 percent of Banda Aceh's buildings were destroyed; entire coastal communities were swept away. In many villages, the vast majority of residents were killed, survivors left homeless, and children orphaned.[7] Some 70 square kilometers of coastal land were left barren. Throughout this ruined terrain of mud, salt, and erosion, verifiable evidence of land tenure disappeared, as legal documents were lost and the tsunami's power obliterated even "natural [boundary] markers like trees and footpaths."[8]

Following the tsunami, the government initially sought to prohibit permanent building construction on land within 2 kilometers of low-lying coastal areas. This revealed a narrow desire for resilient housing but ignored the close connection between housing location and place of employment. In response, public opposition to the government's relocation proposal proved strong enough to get the government to shelve the plan. Viewed a decade later, Aceh has benefited greatly from new housing and neighborhoods built by a variety of NGOs to serve a broad range of incomes.[9]

Almost as staggering as the loss of life and livelihood was the challenge of rebuilding Banda Aceh from the ground up. In the months and years that followed, a rush of international aid — a wave of more than 500 groups that some have called the "second tsunami" — transformed the physical, cultural, and political landscape.[10] That wave has since receded, leaving in its wake 140,000 new houses, 1,700 schools, nearly 1,000 government buildings, 36 airports and seaports, and 3,700 kilometers of roads, funded by $12 billion in foreign support.[11]

Rather than focusing solely on reconstructing the physical city, or recharging the economy, or attending to the emotional needs of traumatized survivors, Banda Aceh's planners and citizens have viewed recovery through multiple lenses. Housing recovery — let alone urban resilience — cannot be defined with simple metrics like the number of new units constructed.[12] Housing that supports the resilience of cities entails providing far more than shelter but also a means of engaging improved quality of life in a city or village.[13]

At MIT, I direct the Resilient Cities Housing Initiative (RCHI—pronounced "Archie") which seeks to draw attention to a global array of projects and programs that demonstrate ways that housing (broadly considered) can be a positive force for the resilience of cities.[14] For RCHI, the resilience of cities refers to the capacity of urban areas to adjust and adapt to sudden shocks and longer term disruptions in ways that support and promote the well-being of all residents, particularly the least advantaged. Resilience is understood to be a capability that urban areas exhibit to differing degrees in response to various challenges, as opposed to a fixed condition or state. In such contexts, the engineer's conception of resilience as "bounceback" is clearly not sufficient, and it can even be misleading. An equity-driven view of urban adaptation insists that cities cannot demonstrate resilience by channeling new investment aimed at the return to some predisruption status quo rooted in the marginalization of low-income groups. Instead, adjusting to external shocks entails a process of developing a more inclusive society that provides social, economic, and political support for the most vulnerable populations. Indeed, one key measure of resilience is how well low-income groups fare before, during, and after shocks.

To address this broader mission, housing must be conceptualized more holistically as a way to help low-income residents cope with four simultaneous challenges: (1) the persistence of economic livelihood struggle, (2) the dangerous environmental vagaries of a changing climate, (3) the impacts of urban violence and insecurity of tenure, and (4) the scourges of dysfunctional governance.

Beyond the initial provision of free dwellings to surviving households, the longer-term contribution of affordable housing requires that it afford access to economic livelihoods — either because it is co-located with a workplace, or because it is sited near employment opportunities that match the education and skill levels of inhabitants. Such housing also affords a healthy environment by reducing vulnerability to all manner of environmental hazards, from floodwaters to toxins. It affords both security of tenure but also personal and familial security, which is essential in a place like Aceh that has suffered not only traumatic disaster but also the political violence that accompanied a long separatist conflict. Finally, housing affords community empowerment and self-governance. New housing can bring together residents to negotiate community standards, norms, and expectations, and can create new forms of neighborhood association and village management.

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The rebuilding efforts followed a wide range of approaches. I distinguish three types: Blank Slate Model Village, Inland Isolation, and Participatory Reconstruction, each of which offers implications for the notion of critical resilience and its relation to urban planning.

LAMBUNG: BLANK SLATE MODEL VILLAGE

When asked for a successful example of redevelopment, Banda Aceh officials inevitably point to Gampong Lambung, considered a "model village" in large part because survivors followed the government's reconstruction plan. Located near the center of Banda Aceh and less than a kilometer from the coast on a flat deltaic plain, Lambung could not have been more vulnerably situated. Of the village's 5000 inhabitants and 700 households, only 60 people survived the 10 meter high waves caused by the tsunami — many because they were out fishing at the time.

The Indonesian government's initial prohibition on permanent construction of new buildings within two kilometers of low-lying coastal areas[15] would have required thousands of people, including the Lambung survivors, to abandon their home communities and move away from sources of economic livelihood.[16] This mode of "adaptation" is increasingly common in efforts to cope with climate change but the consequences often fall hardest on those with the least resources.[17] While some Lambung survivors chose to relocate, others refused to abandon their ancestral home. Many returning residents embarked in a cooperative form of land readjustment that entailed a shared sense of community sacrifice and future vision, voluntarily ceding a portion of their land to make way for a better system of roads. In mid-2005, the government rescinded the building ban and the village was reconstructed on its original site. Survivors and their representatives agreed to a re-platting of the village. At its center is a new public space, an escape building donated by the Japanese Government, which doubles as a community center. The ground floor provides a badminton court, while other levels contain a performance stage, a wedding venue and a prayer area. From the roof, anyone can survey the reconstructed village and assess the relative turbulence of the sea.

The new Gampong Lambung contains about 300 households, about half its prior size. Most houses are elevated about a half-meter on concrete slabs, providing limited protection against future floods. Nevertheless, the continued existence of Lambung is an affirmation of community will. Its residents have defended the idea that is possible to avoid disaster by ramping up a building, rather than by ramping up policies to remove coastal populations.

But if people continue to inhabit low-lying coastal areas like Lambung, those systems will be tested repeatedly by climate change and rising seas. That has some wondering, wouldn't it be more sensible to move all the villagers up into the hills?

JACKIE CHAN VILLAGE: INLAND ISOLATION

An imposing gateway spans the only road into the resettlement community known officially as the Indonesia-China Friendship Village, dedicated in 2007. More commonly it is known as "Jackie Chan Village," after the Hong Kong movie star who made a donation and paid a brief visit. Located 300 meters above sea level and 1.5 kilometers inland, with expansive views of the ocean, the village elevates residents above the reach of any future wave. The Agency for Rehabilitation and Reconstruction (BRR) gave free houses to former homeowners displaced by the tsunami, as well as some former renters. A Chinese contractor built 606 houses, mostly single-family homes with yellow concrete walls and maroon metal roofs. Residents pay a modest charge for water and a share of electricity for the pump, equivalent to about $2.50 per month. Shared amenities include a kindergarten building, a village clinic, and a large covered concrete slab to accommodate an open market that, unfortunately, has never functioned properly.

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When it opened, the resettlement village rehoused some 2,400 people, an unusually diverse community that included about 100 Chinese households, as well as Acehnese, mixed Acehnese-Javanese, and other ethnicities. A survey conducted three years after resettlement found that most residents were satisfied with the houses and valued them almost as highly as their pre-tsunami homes, even though they were smaller. However, the village's remote location, seventeen kilometers from Banda Aceh, creates employment pressures for the fishermen, becak drivers, traders, service workers, and small-scale entrepreneurs who resettled here. As Village Chief Wahid told our team, there is "nothing they can earn a living on here based on their skills."[18]

Within a few years, half the population left. Some moved closer to Banda Aceh but are still registered as living in the new village, and local officials seem to tolerate it when they rent out their village homes. Jackie Chan Village is an attractive settlement with flawed logic. It is a notable example of cooperation and commitment between the Acehnese and the Chinese governments, a cohesive, integrated village construction effort in contrast to the often hodgepodge cases with multiple houses by multiple aid agencies elsewhere. Its privileged siting offers safety and beauty. Resettlement policies by the BRR fostered diversity in a region previously wracked by conflict. And yet, its very distinction, its separation, creates difficulties for infrastructure provision and, most critically, poses often insurmountable challenges for the maintenance of livelihoods.

UPLINK COMMUNITIES: PARTICIPATORY RECONSTRUCTION

A third type of approach underscores the full value of a critical approach to resilient urbanism, by revealing the role of housing recovery in promoting community involvement and local governance. Soon after the tsunami, the anti-poverty network Uplink Banda Aceh (UBA) took the strong stance that villagers should be encouraged to rebuild where they previously lived. At a time when most NGOs abided by the government's "no-build zone," UBA organized protests against the regulation and provided temporary shelter, food, and cooking supplies in coastal villages, rather than limiting food provision to refugee camps as the government preferred. With international funding, they quickly developed resident-driven reconstruction practices in 23 villages in and around Banda Aceh. They worked directly with community members to plan and rebuild housing and infrastructure, including community centers and mosques.[19] Most international donors, according to a report by the Tsunami and Disaster Mitigation Research Center, "viewed the tsunami victims as the objects, rather than the subjects, of the aid. They thought of the tsunami victims as weak, so most of the aid programs were targeted to short-term needs and physical projects and took a paternalistic attitude, and the format of the aid was not in accordance with local needs." UBA embodied a very different philosophy, that "outside parties who want to help disaster victims should empower the communities and consider the role of local institutions, so that community rebuilding post-disaster is initiated by the local people themselves."[20]

In March 2005, UBA helped form Jaringan Udeep Beusaree (JUB), a grassroots organization whose name means "the village solidarity network." Together, they documented pre-tsunami village demographic characteristics, including the residential history and employment experience of survivors, so that they could better target recovery efforts.[21] By that summer, UBA and its partners had salvaged enough wood from the tsunami debris to construct 450 temporary shelters across 23 villages, the first step in a participatory effort to plan and build more than 3,000 permanent homes by February 2007.[22] While global organizations such as the World Bank were still arguing about processes for hiring people to certify land holdings in advance of any actual reconstruction, UBA had already surveyed villages, obtained local buy-in, and started building.

Jakarta architect Marco Kusumawijaya worked with UBA between March and September 2005, and was in Banda Aceh when the government declared that residents should not return to coastal areas. "We defied that," he told us. "We organized people to go back, and did 3,000 houses before the World Bank started."[23] UBA's activism helped turn public opinion against the government policy. Faced with the political and logistical problem of relocating 20,000 families in coastal communities, starting in mid-2005 the BRR stepped back from strict adherence to the policy.[24]

As coastal rebuilding began, most architects "wanted a 'clean slate' like Lambung," but Kusumawijaya urged his colleagues to learn from the structure of the original villages. He admired the village road pattern and mosque-centered layout and felt "it would be wrong to erase this." UBA teams worked with residents to preserve attributes of the coastal villages, but also advocated for enhancements like better escape roads and access to quality land that could permit a move to higher elevations. They imported laser-guided total station surveying equipment to define plot boundaries supported by community consensus and witness accounts.

Throughout the recovery, UBA teams refused to limit their role to the construction of housing and infrastructure. Physical rebuilding, they contended, was merely the entry point for capacity building, self-determination, and psychological healing. The residents managed construction of their own homes, as UBA sought to rebuild not just housing, but trust. They organized art therapy programs and social events. They also helped restore income-generating opportunities. Much of the farmland was damaged by saltwater, so they taught villagers how to make compost and fertilizer and connected farmers with techniques for enhancing agricultural productivity in high-salinity soil.[25]

As part of a menu of five different earthquake-resistant house designs, UBA offered villagers the possibility of two-story homes raised above the ground. This design offered greater protection from floodwaters or minor tsunamis, while yielding a covered, protected space on the ground floor that could be used to store fishing and farming equipment or support a small business. The emphasis on resident input and involvement served to empower communities and enhance their capacity to share in their own governance throughout the reconstruction process. This simultaneous attention to physical reconstruction, economic recovery and emotional reconstitution exemplifies what is possible if one takes a holistic approach to critical resilience. It seems a far cry from the cynicism that assumes resilience can be no more than a rhetorical pawn of neoliberalism.

CONCLUSION: TOWARDS CRITICAL RESILIENCE

In looking at the city-region as a whole, a critical approach to resilience avoids the temptation to view recovery only from the point of view of the most advantaged elites. In 19th-century Chicago and 21st century Banda Aceh, as in many other past instances, taking a critical approach to resilience helps us see how "building back better" is not some purely mechanical operation. Rather, by drawing on a definition of resilience that embraces not just economic recovery and architectural reconstruction but also issues of emotional reconstitution, it is possible to get beyond the facile judgment that resilience must necessarily connote neoliberal property interests run amok.

Once one takes the time to ask questions such as "whose resilience? and "whose city?" it becomes possible to show how rebuilding agendas operate on class and ethnic lines, and reveal ways that elected governments struggle over how to represent the public interest.[26] In terms of the physical built environment, critical approaches to resilience similarly facilitate discussions of how ideological commitments to homeownership may dominate public policy, and may illuminate tensions over the regulation of risky construction. And, seen through its economic dimension, a critical perspective on resilience can clarify whose jobs benefit—and whose do not-- from post-trauma employment patterns. At base, Critical resilience entails a willingness to seek ways to "bounce forward," not merely bounce back.[27]

In examining how various communities responded to disaster, it seems clear that different constituencies defined "recovery" differently and prioritized readiness for future threats in different ways. At the same time, however, they exhibited some common tactics and strategies, indirectly revealing the operation of resilience-seeking behavior even if they did not actually make use of "resilience" as a term. I have suggested that resilience takes place in at least three domains simultaneously: the physical restoration of the built environment, the pecuniary restoration of the economy, and the emotional resuscitation of individuals and families. City leaders consistently

attempt to steer a sense of resilience through three kinds of constructed acts: 1) efforts to manage the dominant narrative about the state of recovery (Who gets to tell the story?), 2) initiatives to highlight conspicuous symbolic milestones of recovery (Which projects signal a comeback?), and 3) attempts to negotiate and control the politics of redevelopment (Who benefits from available funding?). At the same time, however, taking a critical approach to resilience means listening for non-elite voices, too. Despite the differentiated landscape of urban recovery, we frequently ignore the obvious clues about narrative voice (or lack thereof), architectural symbolism, and political favoritism.

Ultimately, if resilience is to be useful concept for urbanists seeking to learn from past and present practices, we need a definition of resilience that re-knits disciplinary strands that are too often kept separate. Resilience needs to include elements of physical bounceback, socio-economic networking, and psychological recovery. If historians of city and regional planning are to shape resilience into a useful term, we need to integrate the insights and approaches from engineers, ecologists, economists, and psychologists—all of whom—like the classic story of blind men trying to describe the elephant—have identified parts of the phenomenon but missed seeing the totality. Beyond this, however, resilience theory can only become a viable guide for resilience practice if there is an ethical imperative to ensure that the benefits of urban investment in resilience are equitably shared by those who have suffered the most or who are poised to face such dire consequences in the foreseeable future. Examples from the past consistently show uneven resilience, so it does no good to speak simplistically about an entire resilient city. Giving resilience a strongly normative dimension--one that asks tough questions about winners and losers and that learns from past examples--offers the best hope for making 'resilience' useful to 'urbanism'. I very much hope we can do that.

Endnotes

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3   Karen Sawislak, *Smoldering City: Chicagoans and the Great Fire, 1871-1874* (Chicago: University of Chicago Press, 1995), 139-140. For a longer discussion, see Lawrence J. Vale, "Rebuilding urban Viability After Disaster," in Eugenie L. Birch and Susan M. Wachter, eds., *Rebuilding Urban Places After Disaster: Lessons from Hurricane Katrina* (Philadelphia: University of Pennsylvania Press, 2006).

4   Helen Gibbons and Guy Gelfenbaum, "Astonishing Wave Heights Among the Findings of an International Tsunami Survey Team on Sumatra," *Soundwaves*, United States Geological Survey newsletter, March 2005.

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6   For accounts of other major 20th-century urban disasters, see Beatrice Chen, "'Resist the Earthquake and Rescue Ourselves': The Reconstruction of Tangshan After the 1976 Earthquake," and Carola Hein, "Resilient Tokyo: Disaster and Transformation in the Japanese City," in Lawrence J. Vale and Thomas J. Campanella, eds., T*he Resilient City: How Modern Cities Recover From Disaster* (New York: Oxford University Press, 2005), pp. 235-254 and 213-234.

7   Florian Steinberg, "Housing Reconstruction and Rehabilitation in Aceh and Nias, Indonesia—Rebuilding Lives," *Habitat International* 31 (2007), 150-166.

8   Tsunami and Disaster Mitigation Research Center report 5, 3.

9   For more a detailed account of post-tsunami resilience in Banda Aceh, see Lawrence Vale, Shomon Shamsuddin, and Kian Goh, "Tsunami + 10: Housing Banda Aceh After Disaster," *Places*, December 2014, from which this section of the paper has been adapted; https://placesjournal.org/article/tsunami-housing-banda-aceh-after-disaster/

10   Ade Syukrizal, Wardah Hafidz, and Gabriela Sauter, *Reconstructing Life After the Tsunami: The Work of Uplink Banda Aceh in Indonesia* (London: International Institute for Environment and Development, 2009), 1, 14-15; Kate Lamb, "Banda Aceh: Where Community Spirit Has Gone But Peace Has Lasted," *The Guardian*, 27 January 2014.

11   Rehabilitation and Reconstruction Agency of Aceh-Nias (BRR), *10 Management Lessons for Host Governments Coordinating Post-disaster Reconstruction.* (2009), 4.

12   Lawrence J. Vale, Shomon Shamsuddin, Annemarie Gray, and Kassie Bertumen, "What Affordable Housing Should Afford: Housing for Resilient Cities," *Cityscape* 16, 2 (2014), 21-49; Lawrence J. Vale, "The Politics of Resilient Cities: Whose Resilience and Whose City?," *Building Research and Information* 42, 2 (2014), 191-201.

13   Vale, et al., "What Affordable Housing Should Afford."

14   For additional information about RCHI, see http://rchi.mit.edu, and Vale et al., "What Affordable Housing Should Afford."

15   Marie J. Aquilino, ed., *Beyond Shelter: Architecture and Human Dignity* (New York: Metropolis Books, 2011); J. Hewitt, R. Potangaroa, and S. Wilkinson, "Levels of Governance in Post-Disaster Urban Planning," *Urban Design and Planning* 162, DP2 (2009), 77.

16   Steinberg, "Housing Reconstruction.

17   Vale, "Politics of Resilient Cities."

18   Interview with "Jackie Chan Village" Chief Wahid, July 2014.

19   Uplink Banda Aceh is an arm of Urban Poor Linkage, or Uplink, a nationwide network of community organizations established in 2002 by Indonesia's Urban Poor Consortium. Its recovery efforts in Banda Aceh were funded principally by the international organizations Misereor, Development and Peace, and Plan International. See Syukrizal, Hafidz, and Sauter, 13, and TDMRC Report, 12.

20   TDMRC Report, 10.

21   Aquilino; Syukrizal, Hafidz, and Sauter; Steinberg, 153.

22   Syukrizal, Hafidz, and Sauter.

23   Interview with Marco Kusumawijaya, Jakarta, July 2014.

24   Sisura Jayasuriya and Peter McCawley, , *The Asian Tsunami: Aid and Reconstruction After a Disaster* (Cheltenham, UK: Asian Development Bank Institute and Edward Elgar, 2010), 89-90.

25   Syukrizal, Hafidz, and Sauter; Steinberg.

26   For more detailed discussion of these issues, see: Lawrence J. Vale, "The Politics of Resilient Cities: Whose Resilience and Whose City?, *Building Research and Information* 42, 2 (2014): 191-201, and Lawrence J. Vale, "Resilient Cities: Clarifying Concept or Catch-all Cliché?" in Richard LeGates and Frederick Stout, eds., *The City Reader*, 6th edition (New York: Routledge, 2016), 618-628.

27   Simin Davoudi, "Resilience: A Bridging Concept or a Dead End?" *Planning Theory & Practice* 13 (2) (2012): 299–333; Vale, "The Politics of Resilient Cities."