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Are Architects the Last People Needed in Disaster Reconstruction?

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Two years after the 2001 Gujarat earthquake struck the city of Bhuj, a group of activists, a local newspaper, a regional NGO and a local architectural firm negotiated with the local authority to allocate assistance and land to disaster-stricken, low-income renters who had lost their places of residence. While it was estimated that rental units accounted for 40 percent of the housing loss and around 4,000 renters lost their homes, housing reconstruction policies did not consider any direct assistance allocation to these households (Tafti and Tomlinson 2013). Having no housing option after the earthquake, these renters resided in a site known as GIDC (Gujarat Industrial Development Corporation), which had been initially planned as temporary housing on the urban periphery. As a result of the advocacy and negotiation of non-governmental entities and their partnership with local and state governments, a housing project was developed to provide housing for around 450 of these households at the same site.

Ten years after the earthquake, the built units have been transformed by an incremental addition of new spaces, such as balconies, additional rooms, shops and even second storeys. The project was initially designed to accommodate self-grouped households in small clusters in response to their requests to live close to their relatives and friends. Communal spaces in each cluster offer a space where families sit together, chatting, tie-dyeing or minding children. As we zoom out and look at the project at the larger scale, however, we found it to be a part of a larger settlement located beyond the city's outer ring road. The rest of this settlement, with units initially built for the temporary phase, now accommodates the remaining low-income renters and sharers—who are still waiting for the government's housing assistance—as well as migrants from surrounding rural areas. Without adequate bus services or good roads, and being located a considerable distance from the city, households are facing many difficulties accessing job opportunities and quality health and education services; children are deprived of high school education. As a result, this population is likely to suffer a downward spiral of social vulnerability.

The GIDC case is one of many that exemplifies the achievements and limitations of the practices of architects in the context of post-disaster reconstruction. This chapter highlights that while architects have contributed to the recovery of affected people in small-scale, scattered projects, they have been less engaged with the broader landscape of displacement following disasters. The contribution of architects to small-scale projects has often been achieved when they transgress their conventional professional boundaries. Engaging with the larger-scale process of recovery and playing a

constructive role in countering the intensified inequalities and displacement after disasters, we argue, require architects to further reflect, negotiate and redefine their professional confines.

To address this issue, we expand on the argument put forward by David Sanderson (2010) that “without a change in their traditional role, architects are often the last people needed in disaster reconstruction”. This call for change in the traditional role of architects repositions the architecture field toward the social end of the formal/social spectrum of the discipline, beyond the symbolic design projects belonging to the formalist shades of the spectrum. Rather than unsettling the field of architecture, the quest to renegotiate its conventional boundaries seeks possibilities for justifying and theorizing the involvement of architects in humanitarian and development activities, as evidenced by a burgeoning literature on architectural projects after disasters (e.g., Architecture for Humanity 2006; Lepik 2010; Charlesworth 2014).

In this chapter, we explore the achievements gained from rethinking the traditional role of architects in different cases of post-disaster reconstruction and identify gaps that persist in these practices. Our particular focus is on housing reconstruction after disasters. Locating architects in housing reconstruction after disasters needs to be understood within the wider context of the humanitarian sector—its main actors, their networks and the flow of funding, knowledge and people within these networks which shape particular humanitarian practices and paradigms. Within this context, we examine the position of architects within three major paradigms of reconstruction: two established paradigms and an emerging one. Drawing on field data collected in different contexts (after the earthquakes of 2001 in Gujarat, India; in Ardabil 1997, Bam 2003, Borujerd 2006, all in Iran; and the 2004 tsunami in Aceh, Indonesia), we examine the role that architects assumed in reconstruction projects under these different paradigms. The chapter then outlines the achievements and limitations of current, socially engaged practices of architects, and highlights their inadequate engagement with the problems of increasing inequality and the displacement of marginalized groups following disasters.

Locating Architects in Disaster Reconstruction

In the Global South, the architecture discipline has been rarely involved in shaping residential landscapes (Elleh 2014; Van Ballegooijen and Rocco 2013), in particular those that are most prone to disasters and those that often become the space of humanitarian activities after disasters, such as informal settlements located in hazardous locations. Yet architects have played a role and are increasingly claiming a bigger role in these activities. Claiming such a role, therefore, needs to be legitimized by offering additional ‘values’ to the pragmatic and undertheorized processes of reconstruction that have been taking place for centuries and would take place without their involvement. Exploring the values that architects can add to this process also raises the question of whose values and interests architects are serving and should serve.

Exploring these values requires us to examine the role that architects have assumed in previous disaster reconstruction situations. This role to some extent depends on the way that reconstruction and the ‘agency’ in the reconstruction are conceived. Three major paradigms (two established and one emerging) represent different conceptualizations of agency in reconstruction. Reviewing these provides a better understanding of the role of architects, among other experts, within the general humanitarian system and the values they bring to the reconstruction processes. These values are juxtaposed with those of the affected people and the involved institutions.

Provider Supply

The first paradigm is provider supply, where the provider may be governmental or non-governmental organizations and/or international institutions. Provider supply has been dominant in disaster

reconstruction projects, in particular in the 1980s and 1990s (Davis 2011). It remains as a major approach in the delivery of housing after disasters among NGOs. These projects are increasingly dominated by relatively few but large bilateral or multilateral agencies and NGOs with little or unstable core funding (Lyons 2009). The reliance of these actors on donors, and hence their need for creating demonstrable success, makes their post-disaster practices different from their day-to-day development projects (Lyons 2009). In particular, grass-roots participation is often undermined in the face of an urgent need for a rapid fix for housing problems (Davidson et al. 2007).

The nature of these projects and the ways these organizations operate locate architects at the periphery of the humanitarian system. The role of architects is limited to the design of a few housing prototypes or the layout of the settlements; the role of disaster-affected people is often limited to that of recipients of housing or participants in labour. Architects in this sense design housing for an institutional client rather than for its users, and the architect's role is defined as a service-oriented practice as part of a reactive and top-down creation of physical artefacts (Boano and Hunter 2012).

The hazard literature reports numerous examples of the failure of these housing projects, which include the abandonment of the project by the supposed beneficiaries (Figure 31.1) or the beneficiaries selling their units' components (Barakat 2003; Ahmed 2011), or even the house builders jeopardizing residents' health through poor practices, such as the use of asbestos in developments in Aceh (O'Brien and Ahmed 2012). It is not rare to see cases of projects being designed by architects who have never visited the project's site (Mulligan and Shaw 2010, Figure 31.2) or cases of architecture being employed simply as a means for communicating the generosity of the donor or its ideology (Chen 2014; Burnell and Sanderson 2011). The lack of communication between the architect and



Figure 31.1 Housing project abandoned by the target population. Bojnurd earthquake housing reconstruction.

Source: Zamani and Tafti 2004.



Figure 31.2 People covered the windows for privacy because they are close to the main road. Sheikh village, Ardebil.

Source: Zamani and Tafti 2004.

the user often results in the cultural and economic dimensions of housing in the given context being overlooked or misunderstood (Ahmed 2011).

One of the premises of building a core house is to address problems that arise from the lack of communication between the architect and the user. The idea is that users will alter and consolidate the core housing to adapt it according to their needs and aspirations, often over an extended period and as their resources permit. This idea is increasingly being adopted in reconstruction projects. Our case studies in Aceh and Ardebil (conducted ten and five years after the disasters respectively) show that most residents put significant resources into improving their homes (Zamani and Tafti 2004; O'Brien and Ahmed 2012). Such projects, however, require designing a flexible core unit and training local artisans on safe construction practices.

In the provider supply paradigm, the reconstruction is initiated and developed by an external agency, aimed at providing a solution for a perceived problem—that is, inadequate shelter—and enhancing the efficiency of the intervention. There is often a disjunction between the donor's, the architect's and the user's conceptions of the problem, solution and what housing does and represents. For instance, humanitarian agencies often frame and construct the problem as having to build a given number of houses at minimum cost. As a result, many of these projects are built in locations where land is cheap and it is easy to build. Such projects, however, have long been challenged by the urban poor, who vote with their feet and move away from poorly located projects at the periphery, to areas closer to jobs and services (Payne 2002).

Aided Self-Help

The second paradigm, aided self-help in housing and development, goes back to the 1930s (Harris 1998). It was, however, the earthquake of 1958 in Peru which worked as a catalyst to put this

idea into practice at a large scale and with higher publicity by the architect and prolific author John Turner, who saw the earthquake as an “opportunity which predisposed everyone to accept new ideas and methods” (Turner as cited in Gyger 2013, 107).

The central concern of aided self-help development, as theorized in Turner’s writings, is “who decides and who does what for whom”, which is built upon the call for “housing by people” (Turner 1977, 4). This concept challenges the hierarchy and power relationship between the supplier/architect and the user. In practice, the power relations between a pro bono architect and the so-called beneficiary might lead to paternalistic attitudes far from the conventional client-commissioner relationship. Fichter et al. (1972) posit that users should be in control of the major decisions in their lives and have discretion in the trade-offs which establish their priorities. Proponents of this concept are primarily concerned with housing in the context of poverty and emphasize that having the opportunity to make contributions in the design, construction or management empowers the poor and produces more economically sound and culturally acceptable outcomes.

Aided self-built housing presents a shift in practices of architects from the technical and aesthetic domain to an advisory one, with a pedagogic agenda being attached to their role. This concept locates architecture at the social end of the formal/social spectrum and challenges the materiality of space as the prime concern of the discipline. Turner (1987, 278) sees the architect as an “enabling practitioner”, defined as an architect who “applies more skill in communicating with people, and seeks greater knowledge of the requisite tools, as well as all the knowledge and other skills any competent architect must have”, while disaster-affected people retain the ability to define and pursue their goals.

Aided self-help housing after disasters, however, is rarely funded and realized only in small and scattered projects. Examples are Oxfam and World Neighbours after the 1972 Guatemala earthquake (Stohr 2006), INTERTECT after the 1977 Andhra Pradesh cyclone and Tearfund and EFICOR after the 1993 Lature earthquake in India (Davis 2011). Harris (1999) posits that self-help housing has never been part of mainstream development. The concept, however, endured among architecture theorists as a socially engaging practice (Hamdi 1991). Yet, it seems that disconnections persist between the values of the architect ‘as enabling practitioners’ and those of the very poor, which tend to be the security of tenure and location, and less the materialized or the yet-to-be materialized house. More importantly, proponents of aided self-help housing; including Turner, have been criticized for overlooking the political economy of housing—the fact that self-help housing cannot substitute for resources indispensable for its realization, like land and infrastructure (Marcuse 1992; Burgess 1982). So the involvement of architects and other experts in self-help housing reconstruction, in particular in cities, deals with uncomfortable realities less debated by the proponents of the paradigm.

Owner-Driven Model—A Third Paradigm?

The 2000s saw the resurgence of aided self-help housing reconstruction in its new form: the owner-driven model of housing reconstruction. This model first was implemented in a few villages after the 1993 Lathur earthquake in India and then become prevalent after the 2001 Gujarat earthquake (World Bank 2010). Growing momentum in adopting this paradigm was driven by strong support from the multilateral agencies, including the World Bank (Jha et al. 2010) and international institutions, including UN-Habitat (2007) and the International Federation of Red Cross and Red Crescent Societies (IFRC 2010). The model has become the default strategy in post-disaster housing recovery (Tafti and Tomlinson 2015), in particular because of its alignment with the World Bank’s monetarist liberal philosophy (Boano and Hunter 2012). The owner-driven model has been adopted by the World Bank’s major-funded housing reconstruction programmes in the twenty-first century: after the 2003 Bam earthquake in Iran, the 2005 Pakistan earthquake and in Sri Lanka after the 2004 tsunami.

The premise of both paradigms seems to be to enable individuals to take control of their housing reconstruction, while receiving financial and technical support. Despite their apparent similarities, the owner-driven and aided self-help paradigms have a fundamental difference. This difference lies in the ways in which the financial and technical support is conceptualized and delivered, which in turn establishes 'who decides what'. Central to the aided self-help paradigm, at least in the eyes of its original proponents, like Turner, is self-governance, an idea that was never attractive to politicians or major international agencies. While the owner-driven model is often considered as a decentralized framework for housing supply, its assistance disbursement mechanisms to a large extent direct the 'beneficiary' to do what is defined as the 'right thing' to do (Tafti and Tomlinson 2015). These mechanisms include an instalment-based disbursement of financial assistance and calculating the amount of assistance based on the size of the built house. Although these disbursement arrangements are introduced to ensure safe construction practices, they carry other implications. For instance, disaster-affected people cannot decide to build a smaller house and allocate a portion of their assistance to their income recovery (Tafti and Tomlinson 2015). Often this limits the opportunities for households to decide about their recovery priorities and where to build, what to build and when.

Another major difference between the two paradigms is the reliance of the owner-driven paradigm on a narrow property logic. The shape, logic and possessory outcomes of this model regulate and coordinate assistance distribution among the disaster-affected community. Home-/landownership in this paradigm operates as the normalized logic, articulating who is eligible/ineligible for receiving assistance and what should be the outcome of assistance distribution. In two of our case studies, Bam and Bhuj, where housing reconstruction was mainly funded by the World Bank and the owner-driven model was the cornerstone of housing reconstruction policies, the non-home-/landowners were largely excluded from the programme.

The role of the architect in this paradigm is close to the conventional role of designing a house for a client. Post-disaster reconstruction in Bam (Iran) after the 2003 earthquake provides an illustrative example, which reinforces Sanderson's argument that architects are the last people needed in disaster reconstruction. Given the high level of physical damage in Bam (80 percent of all buildings damaged or collapsed) and due to the inadequate capacity of the construction sector in the affected and neighbouring areas, the government invited architecture firms from across the country to participate in the city's reconstruction. The more prominent companies sent their newly graduated architects, who had up to that point rarely had an opportunity to demonstrate their design skills and were keen to do so. Under the owner-driven housing reconstruction programme, homeowners had the opportunity to discuss the design of their houses with the invited architects. Costs of designing, preparing plans and issuing building permits were covered by the government. Policy discourses around housing reconstruction were framed around preserving 'the unique architectural identity' of the city and building earthquake resilient housing. To pursue these aims, a high council was formed to establish architectural guidelines for architects to follow and their designs were assessed accordingly (Naghsh-e-Jahan 2007).

A review of the documents prepared by the architecture companies involved reveals the predominant conceptualization of the role of architects in reconstruction and an ongoing focus on form. These conceptions seem to be out of touch with the realities of the most affected population and what they conceived as their priorities in reconstruction. The report of the coordinator of architecture consultants, Naghsh-e-Jahan (2007), for instance, highlights that the "low financial capacity of most of Bammi people limited the quality of design" (p. 80). The low financial capacity of people was conceived as a barrier to creativity: "Creative capacity of the architects deteriorated and was limited only for locating bathroom, kitchen, or bedroom [...] in a small rectangular shape, due to economic reasons" (p. 88). Unsurprisingly, the initial designs overlooked the issue of affordability. Consequently, during the construction process households often did not construct unnecessary elements of housing plans to reduce expenses (Figure 31.3).

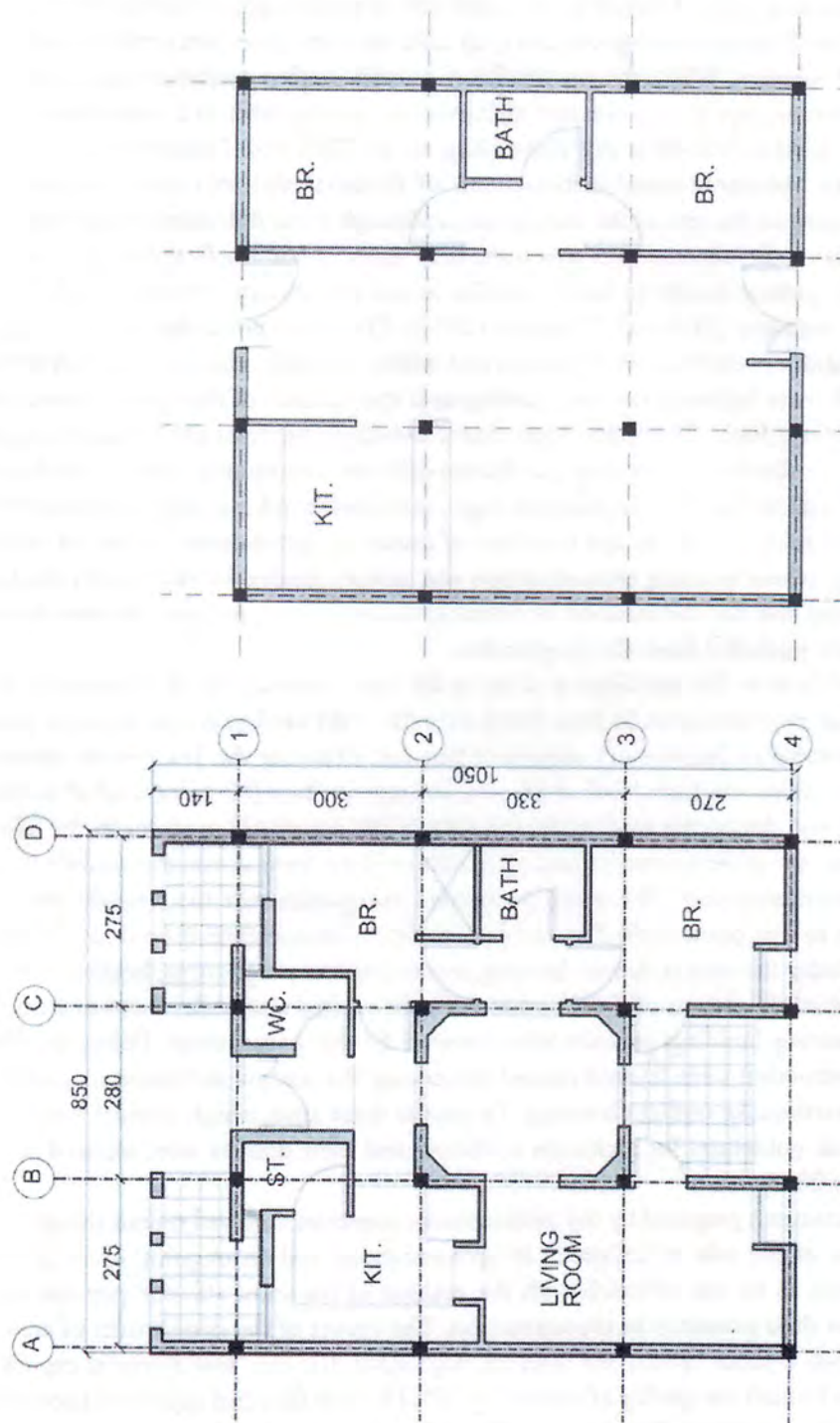


Figure 31.3 During the reconstruction people did not construct the unnecessary and costly elements in plans. The left-hand plan is designed by an architect in Bam and the right-hand plan is the implemented one.

Photo by author.

More importantly, many lower-income homeowners chose to build housing units with ready-made plans and prefabricated structures to avoid the lengthy process of building design and consultation with experts, as well as bureaucratic processes of assessing designs and issuing construction permits. Particularly in lower-income areas of the city, the dominance of these prefabricated buildings reveals the irrelevance of architects—in their conventional roles—to the urban poor. Architects instead played a role in addressing the demands of their better-off clients and architecture served as a medium for communicating social inequalities that were exacerbated following the disaster.

Small Victories and Realignment in the Discipline

Self-reflective accounts of architects about their role in disaster reconstruction have already highlighted that their meaningful involvement requires some realignments in the field (e.g., Charlesworth 2014). Both in development and disaster reconstruction contexts, architects have been engaged in negotiating the traditional confines of the discipline and redefining their positions in relation to communities and in disaster reconstruction or development processes. In particular, three realignments in the field have extended the involvement of architects beyond short-term 'altruistic' engagements.

The most transformative realignment has arguably been the primacy of the process over a materialized outcome. The idea of building a core house, as an intermediary object, which can be transformed and incrementally expanded, transgressed the narrow conceptualization of the discipline as being concerned with a finished object (a building). The idea sits comfortably with the realities of post-disaster recovery as a long-term process within which the external agencies fulfil their humanitarian mission of providing minimum shelter, and dwellers incrementally expand and personalize it over years. Nevertheless, the potential and limits of this concept in higher-density, urbanized areas are yet to be investigated.

The second realignment, embedding a pedagogical agenda into the discipline's domain, also sits well with post-disaster reconstruction with the increasing attention being paid to 'building back better'. Yet examples of a successful transfer of the construction technology to the local communities have been rare (Davis and Alexander 2016), due to unaffordability, inaccessibility of technology and inadequate training. In Iran, for instance, our field survey, conducted five years after the 1997 earthquakes in Ardebil and Bojnurd, showed that in 25 percent of cases people's attempt to expand their units caused structural damage to the inflexible core units, making them fragile in the face of a future earthquake (Zamani and Tafti 2004).

The third transforming realignment has involved repositioning architects and their role within the power relation between the architect and the intended beneficiaries in all stages of design and construction. This realignment can be located within the context of changes in the broader field of development practices in response to the calls voiced by activists, development practitioners and progressive thinkers for a greater involvement of people in decisions that matter to them. Nevertheless, the idea of the architect as an enabling practitioner has been rarely a part of mainstream architecture education.

These realignments in the profession, in general, have all been in line with the general premise of helping people help themselves in disaster reconstruction or development contexts. So far, however, achievements have been limited to small-scale projects of reconstruction and rely heavily on the individual architects' skills of social intermediation between communities and donors. The increasing complexity of disasters and conflicts, in particular in urbanized areas (IASC 2010), requires a more critical rethinking of the discipline.

The Increasing Gap: Displacement After Disasters

In this final section, we argue that beyond small-scale projects, architects can and should play a role in challenging larger-scale changes and trends that take place after disasters. Our argument

is grounded in the proposition that there is an increasing trend of displacement of marginalized groups after urban disasters. The major drivers of this displacement are: first, the proliferation of unplanned parts of cities that are often the most vulnerable settlements, the destruction of which provides an opportunity to clear inner urban areas for renewal and redevelopment; and second, the increasing predominance of market-driven policies in disaster reconstruction activities and the associated gentrification of inner urban areas and exacerbation of pre-existing socio-spatial inequalities in cities.

The disaster literature is increasingly reporting involuntary displacement or outmigration—what Miller (2012) calls the expulsion of ‘surplus people’ during the reconstruction processes (e.g., Weber and Peek 2012; Tafti and Tomlinson forthcoming). Informal settlers represent a significant proportion of those who are displaced (McCallin and Scherer 2015). Low-income renters and sharers are another group that is often displaced due to an often inadequate investment in poorer neighbourhoods, the subsequent very slow supply of affordable rental housing and prevalence of price gauging and red-lining practices after disasters (Tafti 2015). In addition to these market drivers, post-disaster recovery policies that are often designed to protect the interests of homeowners result in non-homeowners being the first to be displaced after disasters.

Our case study of Bhuj is illustrative of the major limitation in focusing on small-scale projects after disasters. While the project showcased many of the achievements discussed in the previous section, such as flexibility and incremental consolidation, it was unable to address the plight of the residents due to inadequate access to services, jobs and the disruption of their pre-earthquake social networks as well as segregation and stigmatization. The residents of this project—low-income renters formerly living in affordable rental housing in the inner urban areas—were displaced, while new middle-income groups replaced them in gentrifying neighbourhoods. In one section of this site, with 92 houses, 55 percent of the new owners sold or rented out their new houses and moved to informal settlements closer to income-earning opportunities and education facilities (Tafti and Tomlinson 2013). The involvement of different advocacy groups for the housing recovery of the marginalized groups, like those with no formal ownership tenure, has repeatedly resulted in well-intentioned projects that in practice lead to the socio-spatial and symbolic segregation of these groups and the reproduction of vulnerability and poverty. The intended ‘beneficiaries’ of these projects often leave their designated dwellings and move back to the city in order to access jobs and services (e.g., Barenstein and Rivas 2012).

Disaster reconstruction does not take place on a clear ground. It takes place in space that has been occupied and used and is linked to people’s lifeways, livelihoods and memories. Lefebvre (1991, 360) points out,

it is easy to imagine that the architect has before him a slice or piece of space cut from larger wholes, that he takes this portion of space as a ‘given’ and works on it according to his tastes, technical skills, ideas and preferences. In short, he receives his assignment and deals with it in complete freedom. This space has nothing innocent about it.

Dismissing the bigger picture of displacement through restructuring space after disasters and remaining silent and complicit architects (Boano and Hunter 2012) implies breaking the promise of humanitarian involvement in helping the most vulnerable.

Decisions that lead to the displacement of marginalized groups after disasters are political and there is a role for architects—within the broader alliance with communities, activists, NGOs and other experts—to engage with and challenge these processes. Instead of surrendering to the narrow logic of involuntary relocation of the urban poor to the urban fringes, the innovative spatial strategies of architects can be instrumental in creating alternatives that maintain the rights of these groups to the city. These innovative solutions can strengthen the capacities of communities and their allies to

collectively negotiate with other stakeholders (Boonyabantha 2009). Even beyond this, the architecture discipline can play a role in lessening the spatial and symbolic distinction in cities based on class, race or ethnicity during reconstruction by rebuilding the city in a more spatially just way.

The possibility for transformative changes that involve architects has already been debated in the context of international development and slum upgrading. Dovey (2013, 87), for instance, in the context of slum upgrading notes that "there is a need for the innovation of a range of spatial types at different densities that enable high levels of internal adaptation, subletting and spatial trading whereby houses and enterprises expand and contract with changing circumstances". Instances of these practices are already emerging in cities of the Global South in different forms and by different actors, such as SPARC (the Society for the Promotion of Area Resource Centres), which mounted housing exhibitions for the urban poor (McFarlane 2004), and the South African SDI Alliance in Joe Slovo in Cape Town, where architecture students were involved in a re-blocking project after a massive fire (Bolnick and Bradlow 2011).

Conclusion

Returning to the argument put forward by Sanderson, the prospect of a meaningful involvement of architects in disaster reconstruction processes lies in a critical rethinking of the profession's ideology, its theoretical underpinning and pedagogical goals. This critical rethinking in the discipline has already been articulated and debated in the literature and put into practice in humanitarian and development projects. Ideas and debates arising from self-reflection include the renunciation of the fixation of the form (Dovey 2013) and offering of flexible spatial solutions, which can serve as seeds for later changes, incremental expansion and consolidation of communities (Hamdi 1991, 2004) and exchanging knowledge with and enabling the disaster-affected people.

This chapter adds to this ongoing debate a call for a further transgression from the central concerns of the architecture profession and a willingness to take a critical position against the displacement and socio-spatial segregation of marginalized groups after disasters. Disaster-affected cities often produce "more socially divided versions of themselves as they rebuild" (Pais and Elliott 2008, 1448), and their socio-spatial reconfiguration after disasters is often associated with the displacement of groups like low-income renters, sharers and slum dwellers. We argue for a proactive engagement of architects in interdisciplinary practices and building alliances with communities, activists and NGOs to provide innovative solutions and alternatives for the housing recovery of marginalized groups. By offering their design and communication skills to the marginalized groups, architects can expand the bargaining power of these groups in claiming their right to the city. Disasters can be seen as an opportunity for transformative changes in cities and architects can play a role in this process by utilizing the transformative role of space and design as their repertoire for change.

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References

- Ahmed, I. (2011) "An overview of post-disaster permanent housing reconstruction in developing countries". *International Journal of Disaster Resilience in the Built Environment*, Vol. 2, No. 2, pp. 148–164.
- Architecture for Humanity (ed.). (2006) *Design like you give a damn: Architectural responses to humanitarian crises*. New York: Metropolis Books.

- Barakat, S. (2003) "Housing reconstruction after conflict and disaster". Working paper, Humanitarian Practice Network (HPN), London.
- Barenstein, J.D. and Rivas, B.M.R. (2012) "Is resettlement a viable strategy to mitigate the risk of natural disasters? Views and voices from the citizens of Santa Fe, Argentina". Barenstein, J.E.D. and Leemann, E., *Post-disaster reconstruction and change*. New York: CRC Press.
- Boano, C. and Hunter, W. (2012) "Architecture at risk (?): The ambivalent nature of post-disaster practice". *Architectoni.ca*, Vol. 1, pp. 1–13.
- Bolnick, J. and Bradlow, B. (2011) "'Rather a better shack now than wait twenty years for a formal house'. Shack Dwellers International and Informal Settlement Upgrading in South Africa." *Dialog*, Vol. 104, No. 1, pp. 35–41.
- Boonyabancha, S. (2009) "Land for housing the poor—by the poor: Experiences from the Baan Mankong nationwide slum upgrading programme in Thailand". *Environment and Urbanization*, Vol. 21, No. 2, pp. 309–329.
- Burguess, R. (1982) "Self-help housing advocacy: A curious form of radicalism. A critique of the work of John F.C. Turner". Ward, P., *Self-help housing a critique*. New York: Mansell, 56–98.
- Burnell, J. and Sanderson, D. (2011) "Whose reality counts? Shelter after disaster". *Environmental Hazards*, Vol. 10, No. 3, pp. 219–231.
- Charlesworth, E. (2014) *Humanitarian architecture: 15 stories of architects working after disaster*. New York: Routledge.
- Chen, T.Y.S. (2014) *Religious NGO approaches to post-disaster housing reconstruction in Sri Lanka*. Doctoral degree, University of Melbourne.
- Davidson, C.H., Johnson, C., Lizarralde, G., Dikmen, N. and Sliwinski, A. (2007) "Truths and myths about community participation in post-disaster housing projects". *Habitat International*, Vol. 31, No. 1, pp. 100–115.
- Davis, I. (2011) "What have we learned from 40 years' experience of disaster shelter?". *Environmental Hazards*, Vol. 10, No. 3–4, pp. 193–212.
- Davis, I. and Alexander, D. (2016) *Recovery from disaster*. New York: Routledge.
- Dovey, K. (2013) "Informalising architecture: The challenge of informal settlements". *Architectural Design*, Vol. 83, No. 6, pp. 82–89.
- Elleh, N. (2014) *Reading the architecture of the underprivileged classes*. Burlington: Ashgate.
- Fichter, R., Turner, J.F. and Grenell, P. (1972) "The meaning of autonomy". Turner, J.F. and Fichter, R., *Freedom to build: Dweller control of the housing process*. New York: Macmillan, 241–254.
- Gyger, H.E. (2013) *The informal as a project: Self-help housing in Peru, 1954–1986*. Doctor of Philosophy, Columbia University.
- Hamdi, N. (1991) *Housing without houses: Participation, flexibility, enablement*. New York: Van Nostrand Reinhold.
- Hamdi, N. (2004) *Small change: About the art of practice and the limits of planning in cities*. London: Earthscan.
- Harris, R. (1998) "The silence of the experts: 'Aided self-help housing', 1939–1954". *Habitat International*, Vol. 22, No. 2, pp. 165–189.
- Harris, R. (1999) "Slipping through the cracks: The origins of aided self-help housing, 1918–1953". *Housing Studies*, Vol. 14, No. 3, pp. 281–309.
- IASC. (2010) "IASC strategy—Meeting humanitarian challenges in urban areas". Working paper, Inter-Agency Standing Committee Working Group.
- IFRC. (2010) "Owner-driven housing reconstruction guidelines". Working paper, International Federation of Red Cross and Red Crescent Societies, Geneva.
- Jha, A.K., Barenstein, J.D., Phelps, P.M., Pittet, D. and Sena, S. (2010) *Safer homes, stronger communities: A handbook for reconstructing after natural disasters*. Washington, DC: The World Bank.
- Lefebvre, H. (1991) *The production of space*. Cambridge, MA: Blackwell.
- Lepik, A. (2010) *Small scale, big change: New architectures of social engagement*. New York: Museum of Modern Art.
- Lyons, M. (2009) "Building back better: The large-scale impact of small-scale approaches to reconstruction". *World Development*, Vol. 37, No. 2, pp. 358–398.
- Marcuse, P. (1992) "Why conventional self-help projects won't work". Mathey, K., *Beyond self-help housing*. New York: Profil Verlag, 15–23.
- McCallin, B. and Scherer, I. (2015) "Urban informal settlers displaced by disasters: Challenges to housing responses". Working paper, International Displacement Monitoring Centre.
- McFarlane, C. (2004) "Geographical imaginations and spaces of political engagement: Examples from the Indian Alliance". *Antipode*, Vol. 36, No. 5, pp. 890–916.
- Miller, L.M. (2012) "Controlling disasters: Recognising latent goals after Hurricane Katrina". *Disasters*, Vol. 36, No. 1, pp. 122–139.
- Mulligan, M. and Shaw, J. (2010) "Achievements and weaknesses in post-tsunami reconstruction in Sri Lanka". Karan, P. and Subbiah, S.S., *The Indian Ocean tsunami: The global response to a natural disaster*. Lexington: University Press of Kentucky, 237–260.
- Naghsh-E-Jahan, C. (2007) "Urban housing reconstruction plan of Bam: Evaluation and documentation of plans and activities". Working paper, Naghsh-e-Jahan Consultants, Tehran.

- O'Brien, D. and Ahmed, I. (2012) "Donor-driven housing, owner-driven needs: Post-tsunami reconstruction in Aceh, Indonesia". Kaufman, N., *Pressures and distortions—city dwellers as builders and critics*. New York: Rafael Vinoly Architects, 237–338.
- Pais, J.F. and Elliott, J.R. (2008) "Places as recovery machines: Vulnerability and neighborhood change after major hurricanes". *Social Forces*, Vol. 86, No. 4, pp. 1415–1453.
- Payne, G. (2002) "Tenure and shelter in urban livelihood". Rakodi, C. and Lloyd-Jones, T., *Urban livelihoods: A people-centred approach to reducing poverty*. London: Earthscan, 151–165.
- Sanderson, D. (2010). "Architects are often the last people needed in disaster reconstruction". *The Guardian*, March 3, 2010.
- Stohr, K. (2006) "100 years of humanitarian design". Humanity, A.F., *Design like you give a damn*. New York: Metropolis Books, 33–55.
- Tafti, M.T. (2015) "Housing assistance distribution after disasters: Does it enable affected households to recover?". *Environmental Hazards*, Vol. 14, No. 4, pp. 361–377.
- Tafti, M.T. and Tomlinson, R. (2013) "The role of post-disaster public policy responses in housing recovery of tenants". *Habitat International*, Vol. 40, No., pp. 218–224.
- Tafti, M.T. and Tomlinson, R. (2015) "Best practice post-disaster housing and livelihood recovery interventions: Winners and losers". *International Development Planning Review*, Vol. 37, No. 2, pp. 165–185.
- Tafti, M.T. and Tomlinson, R. (Forthcoming) "Long-term socio-spatial transformation of earthquake-affected neighbourhoods in Bhuj: Who stayed, who left and who moved in?". *International Journal of Disaster Resilience in the Built Environment*, Vol. 7, No. 3, pp. 230–258.
- Turner, J.F. (1977) *Housing by people: Towards autonomy in building environments*, New York: Pantheon Books.
- Turner, J.F. (1987) "The enabling practitioner and the recovery of creative work". *Journal of Architectural and Planning Research*, Vol. 4, No. 4, pp. 273–280.
- Un-Habitat. (2007) "Building back better in Pakistan". Working paper, UN-Habitat, Nairobi, Kenya.
- Van Ballegooijen, J. and Rocco, R. (2013) "The ideologies of informality: Informal urbanisation in the architectural and planning discourses". *Third World Quarterly*, Vol. 34, No. 10, pp. 1794–1810.
- Weber, L. and Peek, L. (eds.). (2012) *Displaced life in the Katrina Diaspora*. Austin: University of Texas Press.
- World Bank. (2010) "Implementation completion and results report, Bam earthquake emergency reconstruction project". Working paper, The World Bank.
- Zamani, M.A. and Tafti, M.T. (2004) *Evaluation of post-disaster housing reconstruction projects in three disaster-affected provinces of Ardebil, Nother Khorasan and South Khorasan Housing Foundation of Iran*.