

Designing to Heal: post-disaster rebuilding to assist community recovery

Part B: designing a process and product for recovery

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Figure 1. Community mapping facilitated by Barbara Dovarch and Johanna Brugman in Phong Phu Hamlet, Hung Hoa Commune, Vinh City, Vietnam. [source: <http://achryoungprofessionals.wordpress.com>, reproduced with kind permission of The Bartlett Development Planning Unit, University College London]

ABSTRACT

The physical destruction accompanying disasters typically creates an urgency to rebuild damaged communities and help survivors get their lives back on track. There are many inspiring examples of how architects, planners and other built environment professionals have contributed to rebuilding. In many cases their efforts have facilitated the re-establishment of eroded communities and created a sense that the worst was over, the outside world cares and things were getting better. At times, however, these interventions have made things worse by overwhelming the remnants of the pre-disaster community, replacing them with assets and opportunities irrelevant to their needs and values, and setting the survivors down a path not of their choosing. Increasing the chances that such projects will resonate with the communities requires getting the process and the product of design right. Part B of the paper highlights the need of designers to harness community skills, emphasises survivor participation in the planning and realisation of their post-disaster environment, and suggests some characteristics of design that may smooth the path to recovery.

The importance of hope

With the loss of certainty and normality that comes with disasters, hope is an essential precondition for people to make the effort needed to stay and build. Hope provides 'the light at the end of the tunnel'. Without hope people think 'why bother?' Done well the recovery can nurture hope, provide opportunities to contribute and engage with the wider community. However hope is a fragile thing: it is critical for the healing process, but when it is based on unrealistic expectations and is raised only to be dashed it can be bitterly disappointing and can set people back, wasting time and scarce emotional energy.

Designing to heal

Designing to heal is a process that focuses on creating the optimal circumstances for people to go through their own process of recovery and reforge social bonds to get back on track. It responds to the social landscape as much as the physical one and seeks to:

- **Keep the spark of hope alive** by providing 'light at the end of the tunnel'. This happens when the members of the community can see that efforts are being made to understand what is important to them and these hopes and concerns are enshrined in plans for the future. It is about giving confidence that a better future will happen and that there is a genuine commitment to realise this vision.
- **Provide opportunities to rebuild social bonds** around co-operation and shared sense of belonging to the emerging renewed community. This happens when the experience of participating in the planning process contributes to survivors' skills sets; showing them that planning and setting an agenda for the redesign of their community is not a 'dark art/rocket science' and allows them to connect with one another and rebuild social networks to get things done.
- **'Hardwire' places for meaningful and relevant social interaction** that can support the development of social capital, a key contributor to not only recovery but building resilience against re-occurrence. Emotional and practical help can often be better provided by friends and neighbours than by professionals and this support can best flourish when the 'new' places have characteristics that facilitate and support a wide range of social interactions. This range of interactions can span 'managed' interactions such as community dinners and informal or spontaneous interactions that can be supported by creating and maintaining a walkable environment and clustering destinations.

Besides destroying what people value, the blunt and indiscriminate impact of many disasters also destroys the impediments to improving people's surroundings. With sensitivity and creativity the rebuilding process itself can nurture hope that things will not just be the same as they were but can be better. The disaster or the measures taken in response to it may not just overcome the problems wrought by the disaster, but may also address pre-existing problems.

Such an example was the outcome when the 'Ring of Steel', a security cordon setup around the City of London to deter IRA bombers, had the inadvertent but welcomed effect of reducing traffic, congestion and pollution in the city. The initial steel and concrete barriers have evolved into pocket parks and planting beds but their traffic deterring characteristics remain. Likewise the Loma Prieta earthquake in 1989 brought to a conclusion the argument about whether the Embarcadero Freeway (a two decked freeway that cut San Francisco off from part of its foreshore) should be demolished. The earthquake made it unsafe and it was closed. The predicted gridlock did not occur and with it the reasons for its repair and reconstruction vanished. The broken freeway was removed and the city reconnected with its foreshore.

To borrow a quote from *Designing to Heal*:

If you imagine a community as a living being and a disaster as a wound to that being, the way we rebuild can be compared with the way a wound heals. If managed poorly, the scar may never heal properly and will leave a disfiguring mark, limiting potential to move and causing debilitating pain. There is a constant and debilitating reminder of the trauma. If managed well, the scar is almost invisible, it no longer causes pain, it is not disfiguring or debilitating. It may even help the being grow stronger, offering life experiences that may serve that being well in future.

Process and product

Getting the right outcome means looking at the *product* and the *process* of urban design. Getting the *product* right means designing buildings and spaces that enable people to reconnect with each other and overcome problems, pre-existing and new.

PRODUCT CONSIDERATIONS: CREATING POSITIVE ASSOCIATIONS

This means giving new meaning and relevance to places tainted by sadness and destruction. A good example of this is the Re:START project in Christchurch NZ. This transition project consists of a temporary shopping centre made from shipping containers surrounding two principal public spaces and a number of other minor spaces. It is located on and adjacent to Christchurch's main shopping street, deep within

the CBD 'Red Zone' (the area that was considered too dangerous to re-occupy) but visible from outside of it.

The project was intended to reverse the drift to the suburbs and the growing sense the city centre's abandonment was permanent. Paul Lonsdale, manager of the trust that developed the centre told the author how the development was intended to represent a big vote of confidence in the city centre. Its design was informed by a desire to enable people to accrue new and positive memories of the CBD and rekindle the sense of it as the natural place to shop and socialise and a source of civic pride. The developers (of Re:START : the Heart Trust) demonstrated a mastery of the theatrical to capture the public's imagination: all the containers arrived on one ship to create a television friendly identifiable 'start point' for the project. From start to finish the construction took only 61 days, creating a sense of rapid and positive change. The striking design (by the Brisbane office of Buchan Architects) with its use of bright colours, cantilevered stacked containers and incorporation of new and existing landscaping were consciously adopted to create a 'wow' factor and provide a focus for renewed civic pride. Furthermore the size of the development, offering over 50 retailers and facilitating the return of the iconic Ballantynes department store as an anchor, creates a critical mass of activity that has drawn people back into their city centre.

As such the project has provided a welcome boost to

the community and an important symbol of recovery. This project created not only an impressive symbol of Kiwi resilience but has reconnected people with their blighted CBD, challenged the drift to the suburbs and provided an icon for a new Christchurch that has thrown off its 'conservative veil' according to Paul Lonsdale.

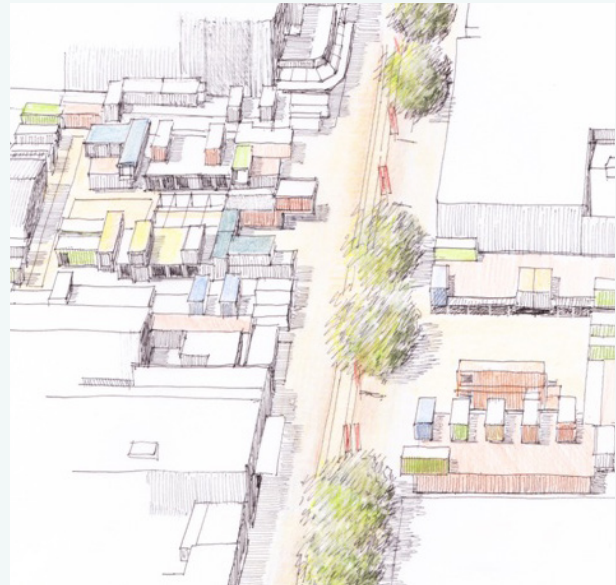


Figure 2b. Aerial perspective of Re:START in Christchurch, NZ. [source: author]



Figure 2a. Ground level perspective of Re:START in Christchurch, NZ. [source: author]

FAMILIARITY+

Conversely sometimes the art of designing to heal is in nurturing the familiar, the loved but almost lost features of people's surroundings to give people a sense of continuity and respect for their fondly kept memories. This objective was given a strong emphasis with the rebuilding of the El Kanah guest house in Marysville. Although the new building is significantly different internally and better equipped to meet contemporary needs than the building destroyed in the bushfire, it was consciously designed to respect the subjective aesthetic qualities expressed by the client and local community. These qualities were informed by what the community is familiar with and departures were only made to this aesthetic where it was justified for functional reasons.

This quality of designing buildings to be reassuringly familiar, yet better equipped to meet future challenges is described in *Designing to Heal* as 'familiarity +'. El Kanah's architects, Elevation Architecture Studios, said of their project, 'The architectural language and geometry of the new building are instantly familiar to visitors'. (See Figure 3.) Its reconstruction – improved but recognisable – was greeted as a welcome link with a past that is largely lost. Architecturally, it is undoubtedly a conservatively designed building but it is also a sensitively designed one. When I asked people in Marysville what rebuilding projects they liked, several pointed to El Kanah as an example of how reconstruction could be done and, in their view, should be done.

To ignore these characteristics risks reopening wounds as many people feel they are moving further away from their fondly remembered past as was the experience recounted above in Marysville and Kinglake.

Getting the balance right between these two apparently contradictory characteristics is a taxing challenge, one that calls for a sensitive understanding of community values and a respectful two way dialogue between designer and the community.

Process considerations

Hence the other key dimension to designing to heal is getting the process right. This means (amongst other things) applying the designer's creativity to an agenda set with the survivors; this can give them a sense of hope, empowers them to take carriage of their own future and help to build resilience against re-occurrence. This process requires transparency, respect and great care to nurture the emotional capital that people can invest in recovery. A plan that people can believe in and get behind can represent the beginning of the recovery and a definable bottom point. Mark Rushworth, a planner responsible for replanning a number of suburban centres in Christchurch after the earthquakes, recounted the comments of a local resident who told him that the plan being prepared for his community and the hope it gave him was the reason why he was staying in Christchurch.



Figure 3. The old El Kanah, prior to the 2009 bushfires (left). The new post-bushfire building, under construction in 2011. (reproduced by kind permission of the CSIRO)

CHALLENGES IN THE PROCESS OF DESIGNING TO HEAL

Throughout the process, care will need to be taken to:

- **Facilitate multiple means of engaging the community** to ensure that technological limitations, personal (dis)comfort and time are not barriers to engagement that may otherwise exclude people from participating.
- **Accommodate the different experiences** of grief, loss and times when people are more likely to feel overwhelmed such as anniversaries.
- **Manage expectations**; hopes raised only to be dashed can stifle a sense of recovery, leaving people distressed and less able to invest emotional capital in future projects.
- **Safeguard against the appropriation and disruption of the process**; people and interest groups in the community can deliberately or inadvertently use the rebuilding process to achieve objectives that may benefit them personally but are detrimental to the wider community.
- **Accommodate the evolution of plans** as information and rules change.
- **Look beyond output to outcome.**
- **Facilitate people to help in the process**; people embody immense resources of skills, insights, materials, etc. and allowing them to help can be therapeutic (Khan 2008). However co-ordinating this help can be a significant challenge in its own right.
- **Provide a two way dialogue**; People will need information and advice, providing opportunities to 'give' information as well as take it, with honesty and humility can help establish a meaningful connection with the community.

Designing to heal – a typical process

There is no single recipe for a designing to heal process. The relationship between people and place is inherently complex and has physical (i.e. built form) and social dimensions (i.e. how people act and feel about their surroundings and the people they share them with) each of which contains countless variables that interact to make each place unique.

Working within such a complex and vulnerable environment will require time and sensitivity. A model for an urban design project that can engage the community in this way is outlined below. It assumes a project commissioned by a government agency to assist a community that has been struck by disaster:

1. **Project inception:** The first step is to ensure the commissioning agency, urban designers and others are 'on the same page' and share an understanding of what the project is about. Whilst complete understanding is impossible, incorrect assumptions left unresolved can derail a project when they become apparent late in the design process, after considerable time and effort has been invested in the project and hope has become attached. Understanding the resources and limits of the commissioning agency (its funds, scope and authority, etc.) is also important if the designer is not to over-promise. All agencies have their limits of legitimacy and authority. Making sure these are understood is important if the designer is to appreciate the administrative framework within which they are to work. The identification and involvement of existing community leaders/ champions at this stage can help give the process legitimacy in the eyes of the community as the project progresses.

This step can also be used to develop and confirm a communication strategy. This can outline and confirm the actions that will be taken to ensure that there is a broad awareness of the project and no-one feels excluded.

2. **Explaining the project and agreeing to the process:** This step seeks to ensure the community and other stakeholders feel they understand what is happening, why it is happening, what their role is and how each step leads to the next. This is respectful and sets the foundations for further community engagement. This provides an opportunity to suggest and confirm the stages in a design process, outline the community's involvement and make a commitment as to how that involvement will be used. Locking in a process may not always be possible where the procedures and steps along the way cannot be finalised; for example, because legislation, and so on, is being reviewed. However, where these uncertainties exist they should be explained to the community and their leaders. This step also offers the urban designer an opportunity to explain their role: it is as not to compile a 'shopping list' for the community but instead to reconcile the objectives that underpin community goals with the broader social, ecological and economic objectives of good urban design. Meetings held to undertake this step also provide an opportunity to ask the community what matters to them, what their priorities are which can also assist in undertaking the next step.



Figure 4. Christchurch City Councils representation of community priorities; enabling the community to see they have been heard and learn of the priorities of their fellow citizens. (reproduced with kind permission of Christchurch City Council)

3. **Understanding the challenge:** This step enables the problem to be identified and resources drawn to it. This requires understanding the site as a physical and social construct, identifying the values people attributed to the site during and before the disaster, how they value it now and the requirements of any plan/policy instruments that relate to that site. This is typically expressed through a site analysis and a graphic exploration of the issues that influence the design with the input from a number of disciplines. A useful technique is to map the 'social landscape' of the community, present it back to them and other stakeholders, and discuss it to make sure a broad level of understanding can be reached about the diversity of considerations that inform the design

Another aspect of understanding the challenge is to understand the resources at hand to meet that challenge. Anne Leadbeater, a survivor of the Victorian bushfires in 2009, told the Royal Commission that:

'The essential element of sustainable recovery is to find and engage with the strengths and networks that existed in a community before the disaster. Every community has something that works for them and that they value. It is worth taking the time to identify and connect with those networks and to build on the pre-existing strengths wherever possible and that is what

we tried to do in those first weeks. It's hard to imagine how you would facilitate recovery without understanding what was valued before. To do otherwise runs the risk of defining the community by its emergency rather than by the great things that usually happen there' (2009 Victorian Bushfires Royal Commission, 2010).

4. **Setting a direction:** This step establishes the design intent for the project based on broad engagement with the community. This will help generate a common and generally supported vision for the area and encourage people to participate in its development and implementation. This can be done by setting, agreeing and confirming a 'design agenda' with the stakeholders and community that explicitly covers their concerns and fulfils the requirements of good planning and design. This can be expressed through plans that explain the priorities that are being pursued and through identifying the roles that different areas will have in meeting those priorities. These should be presented back to all stakeholders so that they can see they have been listened to and to enable them to suggest amendments if required.
5. **Outlining the measures that will take the community in their agreed direction:** This step turns the agreed-upon direction into a realistic and achievable set of proposals. This requires that the built-form implications of achieving the vision are identified and considered from a range of perspectives to ensure they are economically viable and relevant to the needs of the community. After confirming that they are realistic, these actions can be presented to the community and stakeholders for their consideration. This can best be facilitated when the plans demonstrate how community objectives relate to the built-form outcome, reassuring people they have been heard and increasing confidence in the process.

Although still a long way from providing all the information needed to be buildable, such a plan – one that is well-articulated and connects social objectives to the built form outcomes – can be very effective in galvanising support and coalescing opinion behind a shared vision. Realistic, meaningful and thought through representations of what is possible can help proposals win funding and unlock resources, as found in the reconstruction of Narbethong Hall after the Victorian bushfires and in the Ethiopian projects covered in *Designing to Heal*.

6. **Making it happen:** A plan like that described above may foster a sense of hope but if it is to deliver on that promise it will have to be translated into actions on the ground. Getting this done requires harnessing the necessary resources and making everyone's responsibility clear. To this end, a plan should be accompanied by a statement showing how it is to be implemented and by whom. It is not always possible to identify this at the start of a project, but a means of overcoming gaps in resources should be identified so when these gaps appear, there are established strategies to overcome these shortfalls. In the aftermath of a disaster, 'unconventional' resources may become available that can make the difference between a project being achieved or not achieved. Principal among these resources is voluntary/donated labour and skills. However, as explored above, these need careful management.

If the project is temporary or transitional, thought should be given to how the elements may be re-used or if they are to remain the constraints and opportunities they will offer the site in its future use.

7. **Review and revise:** This ensures that the proposals, when implemented, can respond to evolving circumstances and can continue to meet the needs of the people who experience them as their requirements change and as the built elements age with time. This usually requires that the project makes provision for ongoing maintenance, feedback and amendment.

Spanning process and product is the need to facilitate 'progressive empowerment'.

Progressive empowerment

In order to cultivate the sense of ownership designing to heal seeks to facilitate, planning and urban design needs to be done, as much as possible *with* the survivors, not *for* them. Achieving this sense of shared purpose is difficult when people are travelling down their own unique roads of recovery, at different speeds and with different abilities and existing skills. They may never have previously been interested in planning matters, seeing their community as unplanned and the planners simply a bureaucratic inconvenience. Just as Rome was not built in a day the process of engaging people in rebuilding their communities needs to start small and equip people to make small informed decisions on the future of their communities before moving to bigger challenges.

For example *Designing to Heal* covers the example of the Suffolk Lenadoon Interface Group in Belfast in Northern Ireland who 'cut their teeth' in achieving community goals across sectarian boundaries with an initial goal of getting a pedestrian crossing installed. With the lessons learnt from this experience they went through a series of steps to develop and manage a small shopping centre and community hub that has brought life back to two moribund communities who previously shared nothing.

By setting and meeting the challenges they set themselves the survivors can contribute to establishing 'islands of competence' or stepping stones to meet their goal. This equips people with skills, provides them with something that they can point to and others can see that contributes to their self-esteem and sense of fulfilment. This process of incremental empowerment can enable people to solve their own problems and reforge their community bonds in new – and often stronger – ways.

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Whilst there are no guarantees, this level of ownership provides an environment that supports people to invest emotional capital into their new surroundings; it is their community, for them to be nurtured by, to take pride in and responsibility for. Suzanne Vallance, an academic and resident of Christchurch, suggests 'although it may seem an unnecessary distraction when so much effort needs to be put towards the greater recovery effort, there is enormous value in very quickly initiating small-scale, easily achievable collaborative projects. This essentially allows some institutional and community capacity to develop, new networks to consolidate, and trust to be built. If residents (and businesses) see that recovery authorities can successfully undertake small projects, they have confidence that the larger issues can also be dealt with effectively' (Vallance 2012). Gapfiller and Greening the Rubble are two organisations that have sprung up in Christchurch to facilitate this goal and have achieved some inspiring results.

Sustainable Buildings Canada suggests: 'Keep the implementation plan simple. Think local and low cost. A simple plan involving the local community and local resources, and a design concept that honours culture and sustainability practices of the region has a better chance of success ... This principle also creates jobs and supports the reestablishment of local economies' (Sustainable Buildings Canada, 2005).



Figure 7. Greening the Rubble project in Christchurch
(reproduced with kind permission of Greening the Rubble)

Conclusion

Many agencies are involved in helping communities after disasters. If architects and their sister professionals are to help create the optimal circumstances for communities to help themselves and assist the work of these agencies, it is essential not just to design the right thing but design it in the right way.

Get both of the process and the product right and the changes can be nurtured in people's hearts and minds as much as on the ground that things are getting better, that the light at the end of the tunnel is not an oncoming train. Get them wrong and recovery may be set back, locking up scarce resources that will not be available to facilitate more positive outcomes.

References

- 2009 Victorian Bushfire Royal Commission *Final Report*, 2010.
- Donovan, J, *Designing to Heal: Planning and Urban Design Response to Disaster and Conflict*. CSIRO Melbourne, April 2013.
- Khan S, *Helpdesk Research Report: Community Participation in Disaster Rehabilitation and Recovery 30.05.08*, Governance and Social Development Resource Centre, 2008.
- Sustainable Buildings Canada, *Designing for Post-Disaster Reconstruction: A Canadian Response*, 2005.
- Vallance, S, *Facilitating Successful Community-Led Recovery after Disasters*. In *Mass Trauma: Impact and Recovery Issues*. New York: Nova Science Publishers, 2012.

About the Author

Jenny Donovan is principal of Melbourne based urban design practice Inclusive Design. Jenny has a particular interest in social responsibility and working in socially and environmentally sensitive settings.

Jenny is the author of *Designing to Heal* published by the CSIRO which explores the potential role of urban design in facilitating communities to help themselves after disasters and conflicts.

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