

## **Urban resilience: Bouncing back, coping, thriving**

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Paper presented at  
EARTH: FIRE AND RAIN  
Australian & New Zealand Disaster and Emergency Management Conference  
Brisbane – 16 – 18, April 2012

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**Abstract:** The recent Christchurch earthquakes provide a unique opportunity to better understand the relationship between pre-disaster social fault-lines and post-disaster community fracture. As a resident of Christchurch, this paper presents some of my reflections on the social structures and systems, activities, attitudes and decisions that have helped different Canterbury 'communities' along their road to recovery, and highlights some issues that have, unfortunately, held us back.

These reflections help answer the most crucial question asked of disaster scholarship: *what can recovery agencies (including local authorities) do - both before and after disaster - to promote resilience and facilitate recovery.* This paper – based on three different definitions of resilience - presents a thematic account of the social recovery landscape. I argue that 'coping' might best be associated with adaptive capacity, however 'thriving' or 'bounce forward' versions of resilience are a function of a community's participative capacity.

**Keywords:** resilience; community engagement; recovery; earthquakes; disaster; Canterbury

### Introduction

On September 4<sup>th</sup> 2010, at 4.36 am, the Canterbury (New Zealand) region was rocked by a large 7.1 magnitude earthquake that moved Canterbury 2 metres closer to Australia. Although there were no casualties, certain suburbs of the city of Christchurch, and parts of Kaiapoi in the neighbouring Waimakariri District, suffered extensive land damage in the form of liquefaction (known colloquially as sand volcanoes) and lateral spread (surface rupture and slippage). These geological phenomena left some residents homeless and many more living in sub-standard housing. Then, 6 months later, almost directly under the city of Christchurch, another 6.8 magnitude earthquake occurred. Though technically 'smaller', the peak ground acceleration of 2.2 (over twice that of gravity) was one of the highest ever recorded and, according to Professor Yeats, Professor Emeritus of Geology at Oregon State University in Corvallis, USA, this would have 'flattened' most world cities.<sup>1</sup> This time, 181 people were killed (most of them in the collapse of two large inner city buildings) and many more were injured. Those homes that had already been affected in the first earthquake generally suffered further damage and some previously unscathed hillside suburbs also became unstable. The CBD was devastated, and considerable areas of the inner city – the 'drop zones' - will remain off-limits until two tall, unstable buildings are deconstructed.

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<sup>1</sup> [www.stuff.co.nz/national/christchurch-earthquake/4711189/Tuesday-quake-no-aftershock](http://www.stuff.co.nz/national/christchurch-earthquake/4711189/Tuesday-quake-no-aftershock)

The recovery process has been delayed and complicated by the on-going aftershocks; as of January 2012, almost one year after the February quake, the Canterbury region has suffered 4 major events of 6+ magnitude or more on the Richter scale with each of these causing significant liquefaction and lateral spread; over 3000 of 3+, many of which exacerbate existing damage and make the author's filing cabinet rattle; and nearly 7000 of lesser magnitude. Given the extended nature of earthquake sequence, finding companies to re-insure infrastructure has proved difficult and has slowed the recovery.

The cost of repair is considerable, and climbing. Latest estimates (approximately 8 months on) put the bill at about US \$20 billion or 8 per cent of the country's GDP. To put this in perspective, the bill from Hurricane Katrina was less than 1 per cent of the United States' GDP. The 1995 Kobe earthquake in Japan cost just over 2 per cent of that country's GDP, and the bill for the more recent event there in March 2011 is estimated to be between 3 and 5 per cent. The 'silver lining', if there is one, was summarised by Roger Sutton, CEO of the Canterbury Earthquake Recovery Authority (CERA): When asked if he was concerned about the earthquakes causing more damage he replied 'There's not much left to break'.

The costs to businesses and communities are difficult to quantify, but we know they are considerable because much of the 'soft' social infrastructure is as badly damaged as the pipes and buildings. Though the final figures are not yet in, as of January 2012, we believe between 10,000 and 12,000 homes in the Red Zones<sup>2</sup> will be demolished. Other aspects of daily life, besides housing, have also been significantly affected: schools, churches, community halls, recreation centres, shopping malls, corner shops, restaurants, fast food outlets – many of the everyday sites and activities we take for granted – have closed or relocated. This widespread displacement, relocation and closure has had consequences for the so-called 'unaffected' parts of the city: some schools are accommodating two different institutions and doing 'double shifts' 8 months later; 'inner-city' issues such as weekend drunken revelry and prostitution has shifted to suburban centres; and traffic delays are common. This has profoundly altered residents' patterns of behaviour and disrupted many of those basic routines that glue everyday life together.

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<sup>2</sup> The label of the 'Red Zone' was originally applied to parts of the CBD that had been cordoned off. The term is now applied to several suburban areas where the land damage is so extensive, and land remediation so expensive, that rebuilding is not possible in the short-term. In July 2011, residents in these Red Zones were offered a property buy-out package from the central government.

The aim of this paper is to highlight how, where and why the social or soft infrastructure of Christchurch has broken along several 'fault-lines' which, like our geotechnical fractures, have the potential to cause considerable damage. Indeed, it is claimed that the term 'natural disaster' is a misnomer, and that the catastrophe lies in our expectations and social systems - before and after certain events - that make disasters possible or even probable (see, for example, Hinchliffe and Woodward, 2004 on BSE; Clarke, 2008 on Hurricane Katrina). In attempting to highlight the fissures exposed by the earthquakes, I begin with some discussion of three terms crucial to this account - 'disaster', 'community' and 'resilience'.<sup>3</sup> I divide my observations of ways in which recovery authorities might help communities build resilience - pre- and post-disaster - so as to facilitate recovery. This is not so much a chronological account as an outline of a complex web of factors that will inevitably play out differently in other contexts.

## **Communities and disasters**

There is considerable debate as to the definition and characteristics of 'community' (Chamberlain, Vallance, Perkins, 2010). Increased 'mobility', interpreted in a broad sense, challenges the traditional view of communities as geographically-bound entities, connected in and through particular places. It is now common to hear about 'communities of interest', 'professional' and 'virtual' communities, all of which have contributed to claims that 'geography is dead'. Consequently, there is now considerable debate as to what essential features are required in order for a 'collective' to become a 'community', though many claim that important ideas include shared values and common goals (Williams and Pocock, 2009); a common sense of identity (Scott and Marshall, 2005); or a web of affect-laden ties and common culture (Etzioni, 1996). Rather than settling on a particular set of features, Thorns (2002) categorised three different uses of the term based on geography, other social systems, and emotional ties. He pointed out that the uses and applications of community are highly variable and the only common factor among them is that they all involve people.

This debate over the meaning of community becomes particularly problematic in the post-disaster context. By definition a disaster contains several elements: a community of interest or social system is *affected*; it is affected *adversely*; and the adverse effects must be of a *magnitude that compromises functionality* (to distinguish meaningfully between 'disasters' and 'inconveniences'). Based on my observations here in Christchurch, this means, in practice, that the glue that bound

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<sup>3</sup> I am aware that by reinforcing 'the event' as the problem, rather than the social structures and systems that actually create the problems, the labels 'pre-' and 'post-disaster' actually undermine my claim that there are no 'natural catastrophes'.

many pre-existing, well-defined communities together suddenly dissolved either temporarily or permanently. Schools closed which cut children off from each other, and made life difficult for working parents who then become isolated from their colleagues; Residents' Association representatives suddenly left the city making neighbourhoods difficult to access, co-ordinate and communicate with; churches were reduced to rubble leaving the congregation with no-where to meet, and so on. I will return to a more detailed account of this compromise of functionality and its consequences in due course, but for now, it is important to establish a connection between these suddenly 'inaccessible' communities and broader recovery processes with particular emphasis on 'engagement'.

Recovery best-practice consistently advocates for 'community engagement' (Kweit and Kweit, 2004; Etye, 2004; Coghlan, 2004; Coles and Buckle, 2004; Waugh and Streib, 2006; Murphy, 2007; Hauser, Sherry and Swartz, 2008; Wilson, 2009; Vallance, 2011; Norman, 2004) with the benefits said to include political stability, identifying workable solutions to the range of problems recovery presents, sharing and delegation of duties, securing community 'buy-in' to the process, building trust and promoting a positive and cathartic recovery. It is often assumed in all this that recovery authorities are 1) willing and 2) able to engage communities that are themselves 3) willing and 4) able to be engaged (Vallance, 2011a). Unfortunately, if any one of these four assumptions folds, the recovery process can stall.<sup>4</sup> Further, as Olshansky, Johnson and Topping (2006, p. 368-9) noted, community engagement is key but 'to work most effectively after disasters, community organizations should already be in place and have working relationships with the city [officials]. It is difficult to invent participatory processes in the intensity of a post-disaster situation'. Pre-existing relationships are, therefore, critical to the recovery process. This raises interesting questions about the connections between recovery, resilience and the role of communities.

## **Communities, disasters and resilience**

Resilience is another of those terms capturing a range of definitions and approaches, and is arguably coming to replace 'sustainability' as the latest policy buzzword. Nonetheless, it has a long history and has been employed widely in engineering, business administration and organisation behaviour models, civil defence and

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<sup>4</sup> I would argue that this may be occurring in Christchurch. On the 1<sup>st</sup> of Feb 2012, roughly a year on, over 4000 people marched on the civic offices of the Christchurch City Council (CCC) demanding a change of leadership. Across the political spectrum, dissatisfaction with both the Mayor and CEO is high, and the CCC has been routinely described as 'dysfunctional' and 'bureaucratically bugged'. Reinvestment in the city has been sluggish, and at three times normal levels, out-migration is high. Various sources, at different times, estimated the loss to be between 4 and 17 per cent).

emergency management (CDEM), social work, and socio-ecological systems (SES). Across this varied literature, 'resilience' has three related definitions that reflect these numerous disciplinary ties. The first supposes an ideal 'steady-state' or equilibrium to which a system *bounces back* following a disturbance. The second relates to the extent to which a system is able to self-organise or *cope* with a disturbance and restore functionality. The third recognises that a system may have multiple ideal states and that being able to bounce back to normal might be less important – or even less desirable - than the ability to *adapt and thrive* in new conditions (i.e., its 'adaptive capacity'). The adaptive capacity of a socio-ecological system refers to its ability to cope with change by observing, learning and then modifying the way it interacts with the world, over different geographic and temporal scales (Folke et al., 2002). Manyena, O'Brien, O'Keefe, and Rose (2011) have described this as a system's ability to 'bounce forward'. Because this last definition works with *imagined* futures rather than a return to normal, bouncing forward situates *resilience as an expression of the way people expect or want the world to be*. Thus, the ability to bounce forward depends as much on our collective capacity for expectative abstract thought, as it does on our technical ability and/or financial resources.

It also depends on what Lorenz (2011) has called *participative capacity* which speaks to the flow and distribution of power and resources in a social system. It is this participative capacity that allows people's expectations and their ideas about what 'recovery' might mean, to flavour the overall process. Solnit's (2009) work, for example, suggests that 'normal' life is the catastrophe and 'disaster' is actually the opportunity to make things better. She writes:

Disaster reveals what the world could be like...It reveals mutual aid as a default operating principle and civil society as something waiting in the wings when it is absent from the stage. A world could be built on this basis, and to so would redress the long divides that produce everyday pain, poverty, and loneliness (p. 313).

This is where those earlier questions around the nature of community, various communities' roles in recovery, and the *quality* of community engagement become critical.

In summarising the above, several points deserve to be highlighted. First, the recovery literature acknowledges the importance of community engagement but takes for granted that the post-disaster community landscape will be recognisable. On the contrary, the very nature of 'disaster' as involving compromised functionality means that this is probably not the case. The community's 'glue' – whatever that was – has likely eroded. Second, resilience – particularly the 'thriving' interpretation – depends on both adaptive capacity (within the community) and participative capacity

(engagement and relationship with others).<sup>5</sup> This brings us back to the original focus of this paper which was to contribute to a better understanding of hidden social fault-lines, exposed by the earthquake, that may promote community resilience and facilitate recovery or hinder the process.

## **Methodology**

It would be fair to say that the methodology used for this research is rather 'messy'. This seems an unlikely and unprofessional admission, yet the term messy is the most appropriate given the rapidly changing circumstances associated with disaster recovery, and John Law's (2004) work where he argues that our research methods actually *create* rather than *reveal* 'reality'. This is true not just of (participant) action research, but also of more 'natural scientific' research relying on bioassays and penetrometers. The latter have been used extensively here to help gauge land damage and land stability. Some of these assessments are clearly at odds with those of residents who disagree with the land zoning decisions that penetrometers helped shape. The idea is that our methods, even those so-called 'objective' measures are highly political as they shape our social world.

Research philosophy aside, in practical terms, it is acknowledged that qualitative methods are best able to provide rich data that help us understand the ambiguity and temporal liveliness of the social world (Flick, 2006; Babbie, 2010). The rapidly changing landscape of recovery continually affected the types of questions and demanded a fluid and flexible methodology. The actual methods employed for this research included (often participant) observation of numerous public events and meetings, and unstructured interviews with active 'community' representatives (loosely defined). These opportunities arose through my on-going involvement with Gap Filler, Greening the Rubble, CanCERN, the Community Forum and the AvON network, all of which emerged in the wake of the quakes. My relationship and familiarity with these groups has allowed me to contextualise their concerns and build a picture that, inevitably, can only be partial, situated and temporary. Thus, rather than trying to establish *what exactly happened* and predict for others in other places *what will happen*, my goal here was to contribute to a better understanding of themes (fractures and fault-lines) that seemed to promote community resilience and facilitate or hinder recovery.

## **Pre-disaster fault-lines**

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<sup>5</sup> Parallel debates occur around the notion of social capital – often described in terms of strong/weak, vertical/horizontal, or binding, bonding and bracing capitals. See Putnam (1995) or Vallance (2011b) for an overview.

### ***Formal structures of governance***

As Olshansky, Johnson and Topping (2006) argued, post-disaster recovery is heavily influenced by pre-event patterns of governance, behaviour, social structures, expectations, cultural competencies and so on. The Christchurch case is very interesting as, historically, it had a reputation as 'the People's Republic'. Ex-Mayor of Christchurch Vicki Buck popularised this slogan in the 1980s and even had T-shirts printed with these words, presumably to reflect the strong social focus held by the 24 elected Councillors and their leader. The Christchurch City Council (CCC) now has only 12 elected councillors, two from each Ward, and the Mayor. Each ward also has 5 elected Community Board representatives making up the 2<sup>nd</sup> tier of elected local government. Traditionally, these representatives held some 'mana' or standing in their communities, and Community Board members were seen to wield considerable influence both 'at the coal face' and within council. Their position today is more ambiguous; some describe the role as 'token'.

The number of open (to the public) standing council committee meetings exceeded that which we have today, where closed meetings have become the norm. Information flows up and down the council hierarchy have also changed in the last 30 years. The 12 Councillors and 'lower level staff' no longer have ready access to certain information and some have been discouraged (or forbidden) from talking to media and academics. In November 2011, Cr Chrissie Williams resigned citing this as one of the reasons for leaving, and in January this year, Cr Sue Wells even asked the government to replace the Council with appointed commissioners because Councillors could no longer do their jobs.<sup>6</sup>

Further, the old model of community-based teams working together on holistic solutions before advocating to higher levels has been replaced with one where employees report directly and individually to their managers at the civic offices in the central city. Community Board delegations that were extensive have been reduced. As a result of these changes, the Christchurch City Council was described in a report for the Royal Commission as having promoted a 'corporate' approach (Richardson, 2008), first under CEO Lesley McTurk, and now under the incumbent CEO, Tony Marryatt.

The pre-existing issues outlined here – the number and type of opportunities for community engagement, information flows, the locus of decision-making, lack of transparency, and the relationship between the different parts of local government – have all come to play an important role post-disaster. Most significantly, the CCC's

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<sup>6</sup> <http://www.stuff.co.nz/the-press/news/6299843/Council-is-tearing-itself-apart-Sue-Wells>

“dysfunction” has been a critical factor shaping the role played by the Canterbury Earthquake Recovery Authority. Rather than supporting and enabling the CCC, CERA has essentially taken over many of the Council’s functions and residents are very uncertain as to who is responsible for what. Their dissatisfaction recently came to a head at a protest attended by over 4, 000 people demanding mid-term elections and the CEO, Tony Marryatt’s, resignation. This adds weight to Kweit and Kweit’s (2004) observation that inadequate community engagement can lead to political instability.

### ***Formal and non-formal relationships***

‘Collaboration’ is another of those words that acts as a catch-all for a range of activities, including ‘co-production’, ‘co-management’, ‘deliberative democracy’, ‘deep democracy’, ‘collaborative planning’, ‘diffuse’ decision-making and numerous other communicative models. Many of these, including the IAP2,<sup>7</sup> Arnstein’s (1969) ‘Ladder of participation’ and Pretty’s ‘Typology of Participation’ (1994; in Kumar, 2002) try to categorise types of citizen or community involvement in formal planning processes from ‘token’ or ‘passive’ informing/consulting, through to more ‘active’ forms based on empowerment and self-mobilisation. This more active or engaged end of the spectrum is particularly useful post-disaster but, as Olshansky, Johnson and Topping (2006) pointed out, it is immensely difficult to build the skills and an appropriate participatory framework for this *after* the catastrophe has struck. It is therefore important to build collaborative and participatory capacity (Lorenz, 2011) pre-disaster through, for example, shared management of community resources, the development and implementation of small scale projects like community gardens, and so on.

### ***Community development***

In Christchurch the CCCs’s ‘community advocates’ have been replaced with ‘strengthening community advisors’ who have slightly different roles and responsibilities. Whatever label one gives to these staff members, certain characteristics of the role are worth enhancing pre-disaster so as to facilitate post-disaster recovery and resilience. These characteristics include being geographically dispersed and located in the community (or suburban centres) rather than a central office. They should be in a position to facilitate holistic responses to social, cultural, economic and environmental issues or take a ‘helicopter view’. This means their coverage may not be much more than 4 to 6, 000 households.<sup>8</sup> They should have

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<sup>7</sup> <http://www.iap2.org/displaycommon.cfm?an=5>

<sup>8</sup> This figure of 4000 was used by representatives from nearby Waimakariri District Council (WDC) whose earthquake recovery strategy has been seen as exemplary. A presentation from Sandra James at WDC is available on <http://www.lincoln.ac.nz/Services-facilities-and-support/Conference->

some knowledge of community development techniques, mediation and conflict resolution. These staff members should have a mandate, and necessary support, to liaise with communities as soon as possible after the event (so long as their safety is not compromised). Part of their role should be to gather and transmit information, to identify and support new and established community leaders, and help communities (re)form.

### ***Civil society and the non-governmental sector***

Other factors, pre-disaster, that are now shaping the recovery process here in Christchurch include the quality, quantity and degree of overlap among different civil society groups and non-governmental organisations. These form social reserves or community 'spare capacity' to borrow a term from systems theory. These various formal and informal social networks should be geographically and thematically diverse. As one example of how and why this is important, an early supporter of a post-quake civil society organisation - the Canterbury Communities Earthquake Recovery Network (CanCERN)<sup>9</sup> – was an employee at the Delta Community Trust, a non-governmental organisation. Delta helped CanCERN *become* a community by acting as a repository for funding (aid agencies do not like giving money to individuals, even if they are leaders of community recovery initiatives), providing meeting spaces, and general administrative support. In light of this, keeping reasonably up-to-date lists of the various NGOs and CSOs, and supporting their development, is a sensible pre-disaster investment. My view is that some of these existing and emergent groups – such as the student volunteer army<sup>10</sup> - filled the gap left by recovery authorities (including the CCC) who were themselves temporarily dysfunctional.<sup>11</sup>

### ***Funding***

The opportunities and regulations around discretionary funding are very important post-disaster. It is recommended that *pre-disaster* a pool of funding be ready to go at a moment's notice with good flexibility around the application process, criteria, closing dates and accountability. My observation was that community groups could make small amounts of money go a long way. CanCERN ([www.cancern.org.nz](http://www.cancern.org.nz)),

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facilities-and-event-management/Professional-Development-Group/Resilient-Futures/Resilient-futures-conference-recordings/

<sup>9</sup> The author is a CanCERN Board member.

<sup>10</sup> Community Board member Sam Johnson quickly mobilised thousands of people – the Volunteer Student Army - to help shovel liquefaction using Facebook and Twitter. The FARMY Army co-ordinated farmers with heavy farm machinery to do the same.

<sup>11</sup> The Civic offices were damaged in the earthquake and then off-limits for weeks whilst nearby buildings were demolished. The same thing happened to the Regional Council's bunker which had consequences for their ability to respond effectively. It is a warning to those who would locate their civil defence headquarters near other hazards; have a Plan B.

Gap Filler ([www.gapfiller.co.nz](http://www.gapfiller.co.nz)), Greening the Rubble ([www.greeningtherubble.co.nz](http://www.greeningtherubble.co.nz)) and AvON ([www.avonotakaronetwork.co.nz](http://www.avonotakaronetwork.co.nz)) all started with nothing except goodwill and ideas that resounded with the public imagination, but are now fairly well-recognised actors in the recovery process. Their journey would have been easier and possibly more fruitful with adequate support early on.

It is important to recognise that many of the emergent communities that spring up after a disaster will not have any track record. I would suggest that iterative funding schedules are therefore useful, though other disagree: Evan Smith, formerly from CanCERN, read an early version of this paper and argued that “Short contract periods although being helpful for agility are actually detrimental because they lack security and require a much higher level of reporting and administration”. Overall, he disagreed with the idea of short, iterative funding timeframes, but interviews with recovery authorities revealed practical difficulties around bestowing large sums of money to people with no track record. Funding criteria and reporting must therefore strike a delicate balance between meeting needs for accountability and meeting the needs of the community.

## **Post-disaster fractures and fault-lines**

### ***Leadership # 1 (Central Government)***

As much as I would like to think that there are important techniques and strategies associated with disaster recovery (and I will list some of these below), it is clear that leadership and leadership style are fundamental to the recovery process. The very top level of decision-makers (central government) must ensure that the various recovery agencies and authorities are working together as soon as possible. Here, we have witnessed CERA, the CCC, the Earthquake Commission, Fletchers (who won the tender for the rebuild), and various insurance companies all playing important roles but, often, the responsibilities of each are unclear. This leads to unnecessary duplication of effort or, worse, gaps that none of them seem to want to fill.

A related point, though one that is less clear-cut, is relationship between recovery authorities like CERA and central government. CERA is loosely modelled on VBRRA but an important difference is that CERA is not a stand alone agency but newly created government department. This raises interesting questions over the extent to which the Minister is willing and able to be openly critical of his own department, and vice versa. It also places a considerable amount of power and influence in the hands

of one person which, if one reads the likes of Klein's (2007) *Shock Doctrine*, can be open to abuse.

### ***Leadership # 2 (Regional/City/District)***

*'Our success will not be measured by the kilometres of pipe and road that we replace, but by how the people come through this', Jim Palmer, CEO, WDC.*

In contrast to the CCC, post-earthquake, the nearby Waimakariri District Council (WDC) quickly established a local 'hub' in the worst affected area where residents could access a Support Co-ordinator who knew the area and understood the various support structures and services available (such as emergency funding for house repairs, etc). WDC also undertook a pastoral care programme which included door knocking, cups of tea and, as some residents were being told their homes were to be demolished, cakes baked by neighbours and nearby residents. 'Open conversation', where the bad news is conveyed with support, has characterised WDC's communication strategy. The framework they used was based on an Asset Based Community Development Programme where the guiding questions included:

What is it you want to RETAIN?

What would you like to REGAIN?

What would you CHANGE/MODIFY?

What doesn't WORK?

What would you CREATE if we could?<sup>12</sup>

The CCC, by comparison, is less clearly demonstrating a recovery *strategy* or, perhaps more accurately, the approach is not one where the residents of the city feel they have priority. In fact, at a Community Forum<sup>13</sup> meeting, the CEO of Christchurch City Council Tony Marryatt stated that the focus had been on doing what the government had told them to do which was to repair major infrastructure and develop the Draft Central City Plan. This has resulted in many residents – those with few ties to the CBD and relatively intact infrastructure – feeling left out of the recovery process and has resulted in the protest mentioned earlier.

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<sup>12</sup> This information is contained in a presentation by Sandra James available on <http://www.lincoln.ac.nz/PageFiles/12552/Lincoln-18th-April-2011-Sandra-James.pdf>

<sup>13</sup> Members of the 40 strong forum were selected from candidates nominated by various Canterbury-based interest groups, and now includes representatives from businesses, Residents Associations, CSOs and NGOs. The author is a member. None of us are sure what the selection criteria were, or what our mandate is.

### ***Leadership #3 Community***

I have argued elsewhere (Vallance, 2011b) that, post-earthquake, communities<sup>14</sup> in Canterbury had to first *become* before they could *become engaged* and indicated an important role for basic community development. Disasters, by definition, compromise functionality of, in this case, communities. Restoring functionality thus involves recognising the altered nature of the community leadership landscape. Helping emerging leaders in their new role becomes critical as they may have little previous experience in leadership roles and may be completely unaware of existing processes, procedures, plans, or policies. They need to be identified and enabled.

Identifying new leaders may be difficult because, as my observations here suggest, they really do build credibility from the ground up rather than 'shouting from the treetops'. They may not actually see themselves to be 'leaders'. Nonetheless, they will be the ones who, with no funding to speak of, show initiative and set up meals on wheels for the elderly, organise community meetings to obtain and share information, co-ordinate teams of students to shovel liquefaction, lobby for residents' rights and needs, develop a local neighbourhood recovery plan, or set up local 'suicide watches' on people in the neighbourhood who are not coping...But, if the recovery authority is actively out there liaising with the affected communities in a meaningful way, these new leaders are pretty obvious. Aligning quickly with these new leaders (whilst not ignoring existing structures if they remain intact) is critical.

Once they have been identified, they should be enabled. This can be achieved through various means including adequately funding their position, resourcing (provide rooms, photocopiers, computers, access to legal aid, etc), up-skilling or, importantly, providing information.

### ***Information flows***

Johnson (2011) has called information the 'currency of recovery' and its *value* should not be underestimated. In the early response phase residents in badly affected communities were so desperate for information that they would ask the 'loo man'<sup>15</sup> what was going on. Those who have access to reliable information gain real credibility in the community and this can be a way of endorsing new leaders and promoting participative capacity before formal funding starts flowing.

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<sup>14</sup> Frankly, the same applies to the recovery authorities themselves. CERA did not even exist this time last year and the EQC went from a small staff of 22 to over 700. It has taken time for these organisations to become functional.

<sup>15</sup> 'Loo men' dropped off and collected the port-o-loos from areas without sewerage.

*Information flows should work both ways*; it is not always about conveying messages but also about acquiring information. Engaging communities can be seen as a way of gathering relevant and useful data upon which to base important decisions and identify workable solutions to ‘wicked’ problems.<sup>16</sup>

Engaging communities and working with new and established community leaders gives recovery authorities another option when it comes to delivering ‘bad news’. Complex and/or unwelcome news might best be delivered face-to-face or in a small supportive group. Community leaders are best-placed to identify what will work best. As but one example, the Community Forum asked that difficult or controversial or complex messages not be issued on a Friday because it means residents have to wait the whole weekend for clarification on the finer points.<sup>17</sup> If the *message should suit the medium*, community leaders can help recovery authorities understand what is most appropriate in terms of timing and delivery.

When answers are not known – and this is very common after a disaster - it is tempting to retreat to the safety of the civic offices, however, this can be extremely counter-productive. It is important to remember that residents do not actually expect recovery authorities to know everything immediately. Many would ‘prefer to see time spent making the right decision rather than time wasted fixing the wrong one’ (CanCERN meeting Oct, 2011). However, when answers are not known, an information timeline should be indicated because ‘the only thing worse than not knowing is not knowing when you’ll know’. This has been particularly true for residents here who have waited and waited to find out if their house has been ‘red-zoned’ and are wondering whether or not to buy a new pair of gumboots to cope with the liquefaction, plant out their tomatoes, order firewood for the winter, or enrol their kids at a particular school...The message is not to wait for certainty and glossy pamphlets; *indicative timelines* at least allow people to get on with a life of sorts; complete information vacuums can drive people to despair.

In early recovery, it can seem as if the only constant is rapid change. Communities and, it must be said, recovery authorities are forming and re-forming after lost functionality. Roles are still being negotiated and this can make information flows difficult. A helpful technique here in Christchurch was to get a representative from EQC, AMI (the insurer of the largest number of damaged homes, Fletchers (the

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<sup>16</sup> See Vallance (2011b) for an example involving the lack of engagement over sewerage and temporary/permanent solutions.

<sup>17</sup> CanCERN workers had noted a demonstrable rise in violence and alcohol abuse over weekends if bad news was issued on a Friday.

'rebuilding company') and Tonkin and Taylor (the geotech company) in one place<sup>18</sup> for a *community meeting* with residents who were asked to sit in clusters according to the street in which they lived. A very *strong facilitator* then went around the room, from street to street as it were, asking residents to voice their concerns. This strategy allowed everyone the opportunity to speak and also provided 'small' community issues to be identified. This can be very productive in areas where a sense of community is fairly weak and 'geographically close' residents do not even know each other. As one example, once several street residents got to know each other in this forum they realised the geotech assessments were incorrect and were able to ask for a re-evaluation. As another example, it became clear that fixing the sewerage for one household often meant a nasty problem for someone else along the sewerage lateral and they were able to suggest a more co-ordinated approach. Finally, hearing other people's stories took some residents away from seeing 'their' problem in isolation, and allowed them to 'place' the earthquake geographically. On a number of levels, this way of organising community meetings can foster the development of holistic solutions to communal problems.

### ***Transitions***

Recovery often seems to be construed as a race towards 'normal' or 'better', as if there were some kind of definitive end point. Conversely, much of the recent 'normal' planning literature now speaks of a 'post-normal' condition where we should acknowledge the limits of our predictive science and move towards 'post-positivist' (see, for example, Allmendinger, 2009) or 'contingent' planning models (see, for example, Francois, 2008; de Roo and Silva, 2010; Loorbach, 2010). Though 'disaster' presents some challenges for non-disaster planning approaches, some of the lessons from the post-positivist planning literature are both interesting and salient as key features include concepts of complexity and uncertainty. This literature has some very practical implications around process (e.g. Whatmore and Landstrom's (2011) work on flood apprentices) and content (e.g. Gunder, 2008 and Gunder and Hillier's (2007) work on 'hauntology' and what should be recognised in planning). This literature highlights and challenges some fundamental planning principles, whether recovery-based or not, that assume planning will actually achieve a desired outcome. The idea of a 'plan' becomes distinctly 'fuzzy' and, as a result, experimenting with new ways of getting things done becomes more important.

A new way of getting things done in Christchurch emphasises '*temporary solutions*' and '*transitional arrangements*'. These include temporary 'emergency repairs' to homes and businesses; temporary installations, such as those developed by Gap

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<sup>18</sup> I believe this was useful for both the residents and recovery agents and authorities, as they each got to hear what the others agencies were actually saying and this helped shape the relationship between them. Unfortunately, CCC representatives were noticeably absent from these meetings.

Filler and Greening the Rubble; the 'transitional city' outlined in the draft Central City Plan which acknowledges the lengthy timeframes of this recovery; and CERA which has a 5 year life span. Debates about the actual *value* of 'temporary' solutions have framed these activities; is it worth investing in something we know will not endure?

My own view, based on the Christchurch case, is that temporary solutions are immensely valuable because they promote experimentation and innovation; provide opportunities for trial runs; give residents and recovery authorities the opportunity to do something useful; and, importantly, temporary activities *help balance the hasty demand for progress with the time needed for careful planning.*

To alleviate concerns that the transitional arrangements might become permanent, temporary activities and organisations should have an *exit strategy*. As one example, Greening the Rubble and Gap Filler both have a strategy (and now a demonstrable history) of leaving a site in as good, or better, condition than they found it, not least because they have a commitment to re-using as much material as they can. This clear exit strategy associated with temporary installations gives site owners confidence in the project management and sites are readily available as a result.

Conversely, CERA which has a legislative 5 year life span is 'gearing up' rather than planning their exit, and the roles of CCC and CERA are becoming increasingly blurred. There is a sense, rightly or wrongly, that the CCC is focussing on the CBD (as outlined in the Draft *Central City Plan*) whilst CERA is responsible for everything else, including the Draft Recovery Strategy for *Greater Christchurch*. At a practical level there has been some duplication of roles, with one example being CERA's provision of its own summertime activities programme, which is usually the domain of the CCC. There has also been confusion about the role of the Community Forum, and whether this has replaced the elected Council and Community Board members. Though it is understood that CERA will not endure beyond 2015, they seem to lack an exit strategy that will leave democracy, capacity and capability in Christchurch as it was before the quakes. The lesson here seems to be to make sure temporary recovery agencies *add capacity without eroding capability.*

## **Concluding thoughts**

In this paper I have identified potential 'fault-lines' which, like those geotechnical fractures, have the potential to fracture and erode a community's resilience. I have argued that these 'fault-lines' or 'species of trouble' (Erikson, 1995) that might hinder recovery include – pre-disaster – formal structures governance; the relationship

between formal and informal structures; community development; the role and status of CSEs and NGOs; and the management of emergency funding pools. Post-disaster, potentially difficult areas include leadership at the state, regional/city/district and community levels; information flows or 'the currency of recovery'; and the value and management of temporary solutions.

The Canterbury earthquakes have –unfortunately - provided an opportunity to examine pre-disaster and post-disaster efforts, by communities and recovery authorities, to promote resilience and recover from disaster. Identifying and addressing, pre-disaster, those areas of weakness may help facilitate recovery.<sup>19</sup> On the other hand, if I had to pinpoint one factor that has caused a great deal of trauma post-disaster, it would have to be leadership. Referring back to the introductory sections, I argued that community resilience – in a thriving sense – was a function of both adaptive capacity and participative capacity. Elsewhere I have argued that communities must take some responsibility for becoming a community so as to build participative capacity, and be engaged in recovery processes. Yet, much of the responsibility for participative capacity rests with formally appointed leaders, such as our Minister for Earthquake Recovery Gerry Brownlee, and the Mayors and CEOs of our local authorities. Have they ensured that their models of governance enable and encourage community participation or are they focussing on the pipes and pavements? Ultimately, 'recovery' is not something that authorities and agencies simply decide is happening or has happened; recovery is in the eye of the beholder thus it is important to take the community with you.

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<sup>19</sup> Ironically we may never know because if we are successful, disasters are averted or the costs reduced!

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