



A preliminary analysis of the ‘recovery machine’ in post-earthquake Christchurch: opportunities and restrictions to development.

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1. INTRODUCTION

After 160 years of colonial settlement, Christchurch has recently experienced a sequence of devastating earthquakes and seen the need for a widespread de- and re-construction of the central city, as well as, many of the surrounding neighbourhoods and peri-urban satellite settlements. This paper will offer a view of the opportunities and restrictions to the post-earthquake re-development of Christchurch as informed by ‘growth machine’ theory. A case study investigating an illegal dump in central Christchurch will be used to assess the applicability of growth machine theory to the current disaster response.

2. DISASTER RESEARCH

Disaster research has been traditionally bereft of theoretical nous, primarily because research on ‘natural’ hazards or disasters was often undertaken by civil or military organisations that were explicitly focused on concrete realities rather than theory (Tierney, 2010). More recently however, geographical and sociologically informed disaster research has flourished (for example, see Peacock *et al.* (1997); Bolin and Stanford (1998); Gotham and Greenberg (2008); Freudenberg *et al.* (2010)). Following this trend, in 1989, Kathleen Tierney used the ‘growth machine’ hypothesis (elaborated in detail below) developed in the previous decade by Harvey Molotch (1976) to explain why local politicians discouraged earthquake mitigation measures, such as earthquake retro-fit ordinances, improved building standards, and more stringent land-use planning, in her local California community. Using Tierney’s (1989) research as a

guide, I propose that the extension of the ‘growth machine’ (or as Tierney (see also Pais and Elliott,

2008) referred to it, ‘the recovery machine’) theory into analysing disasters – such as earthquakes, floods and cyclones – offers a geographical explanation of these disasters that recognize the structural factors that local governance and economic systems play in the response and recovery.

3. GROWTH MACHINE THEORY

Growth machine theory stems from the research of Molotch (1976) and his collaboration with Logan (1987). Molotch argued against scholars who viewed local governance as the outcome of open democratic debate (for example, pluralists like Dahl (1961), and Polsby (1960)). Rather, Molotch argued that “a city, and more generally, any locality, is conceived as the areal expression of the interest of some land-based elite. Such an elite is seen to profit through the increasing intensification of land use of the area in which its members hold a common interest (Molotch, 1976: 309)”. The easiest and most efficient way to promote intensification of land use is through economic growth, which often expresses itself in an increasing and more prosperous population. If local elites are able to attract new industries to the area – corporate headquarters, government offices, educational and research facilities, for example – this can lead to an expansion of retail and service industries in the locality (Domhoff, 1986: 57-58). This sequence, according to growth machine theorists, is driven by existing land-owners and local authorities, who themselves are in competition with other localities who could

subsequently attract the same industries. The 'growth machine' helps explain spatial and social environments because, according to Molotch (1976: 309), "conditions of community life are largely a consequence of the social, economic, and political forces embodied in this growth machine".

Five key factors determine the magnitude and effectiveness of the growth machine in an urban area. The first, as already drawn upon, is that individual land-owners and groupings of land owners will lobby local government to extract gains. At a national level, local government or a coalescence of regional and local governments may lobby central government for specific benefits; for example, business leaders may promote specific geographical placing of a convention centre so that the surrounding area can benefit from the subsequent trade and economic stimulus. Secondly, in order to gain benefits from authorities, localities are mindful of promoting conditions which serve economic growth. This good 'business climate' could be fostered by low taxation or rating on properties; flexible labour laws; or the existence of local vocational facilities which provide well trained employees at no cost to the industry.

Third, the negative externalities of growth must be borne by the citizens of these authorities, rather than the new businesses who may be responsible for this stress on local infrastructure. If a new industry begins to pollute the local air, anti-smog plans should be paid for by the citizens, and not business.

Fourth, those more likely to become involved with local politics and decision making are those with a greater financial stake in the decisions made. For example, businessmen and women, property owners and investors in local financial institutions often run successfully for local government. This creates a clear linkage between the real-estate interests who privately benefit from economic growth in a locality and the public decisions made by the local authorities for the good of all citizens.

Lastly, Molotch (1976: 313) concludes by stating that these factors all aim "to make the extreme statement that this organized effort to affect the outcome of growth distribution is the essence of local government as a dynamic political force. It is not the only function of government, but it is the key one and, ironically, the one most ignored".

4. GROWTH MACHINE THEORY AND THE 'RECOVERY MACHINE'

How does the growth machine theory of local politics relate to disaster recovery, and in particular, recovery in Christchurch city and the surrounding localities? Tierney argues that mitigation measures to lessen or off-set the impact of disasters are rejected by actors promoting the growth machine (land owners, real estate investors, local authorities, supportive citizens) during times of relative stability, especially if these mitigation measures are viewed as costly economic externalities. She argues (1989: 377) that "growth pressures...set the stage for future disasters and help to undermine mitigation", because, in her view, economic elites and pro-development groups are "typically key actors in opposing hazard mitigation measures when they are proposed", and that, for example, "unreinforced masonry buildings ha[ve] been a major factor impeding the adoption of programs to abate the hazards associated with those structures, which bring a very high rate of return for investors (Tierney 1989: 378)".

Mitigation, however, is just one stage of disaster management. Drabek (1986a as quoted in Tierney, 1989: 267) separates disaster management into four stages: mitigation, preparedness, response and recovery. Tierney's research focuses on the reluctance to adopt mitigation schemes before natural disasters, especially in areas which are known to be prone to certain events (for example, California and earthquakes). Authors such as Pais and Elliot (2008: 1415) have extended 'growth machine' analysis, arguing that "following...disasters, pro-growth coalitions take advantage of new sources of material and symbolic capital to promote further demographic growth". They refer to this as the 'recovery machine', and in this preliminary analysis, I hope to extend use of this concept to provide evidence that the 'growth machine' is a permanent fixture throughout the four phases of disaster management. Furthermore, analysis of the 'growth machine' during the recovery phase will offer insights into the ways that local business and government interests recover from devastating disasters.

5. CASE STUDY: SKELLY HOLDINGS AND THE SYDENHAM DUMP

Damage to a significant proportion of buildings in Christchurch's central business district occurred due to a sequence of earthquakes which began on September 4th 2010. After a subsequent, more destructive tremor on February the 22nd 2011, the entire area was cordoned off to the public. Inside this cordon widespread de-construction of buildings has occurred, a demolition project the size of which New Zealand has never seen before. The waste from this demolition has a variety of potential uses; metals can often be recycled or smelted, and other raw materials like wood can be re-used. However, a large amount of material from demolition is not reused and is dumped.

Disaster mitigation can generate income for structural engineers, geologists and the like. Disaster recovery also creates temporary pop-up industries which can help foster economic growth. Demolition and deconstruction was one such industry, and in Christchurch an influx of new and existing businesses developed to provide this necessary service. One such business venture was the Canterbury Resource Recovery Centre (CRRC) and Skelly Holdings, both owned and managed by English migrant Chris Skelly.

On the 11th of January 2012 issues surrounding the disposal of waste from Skelly's demolition jobs were reported in the local newspaper, the *Christchurch Press*. On the 11th of January, an article stated that "Environment Canterbury (ECan) [the regional council designated authority over dumping] is set to do battle with a demolition contractor responsible for allegedly illegal dumps in Christchurch and Rolleston [a satellite town on the outskirts of Christchurch]..." (Van Benyen, 2012a). A local business owner, Peter Davies of Underground coffee, stated that dust from the [Sydenham] dump was a nuisance, and that other local businesses in the area were also affected.

The crux of the issue pertained to the consents Skelly was given for dumping. On the Sydenham dump, consent was given for Skelly's business to deposit waste within a large covered warehouse rented to him by KiwiRail. However, large amounts of waste had started to pile up on the sides of the warehouse, as well as on a vacant piece of land opposite the warehouse. The dump

was both an eyesore and an air pollution issue for local residents and businesses, with dust blanketing the local area in dry and windy summer conditions. After this initial negative publicity, it was announced that ECan's compliance monitoring team leader, Nathan Dougherty, had attended a meeting with the contractor and all open-air dumping was to cease within a month.

Earlier in the saga, an ECan Resource Management Act monitoring and regional compliance regional manager, Brett Aldridge, reaffirmed that Skelly Holdings had approval to store waste within the warehouse, but not to do so outside. He stated that "[w]e're trying to enable the [earthquake demolition] companies to operate and help them through the process, rather than weighing in with enforcement action as a first step" (Sachdeva, 2011).

Two months later concurrent stories about the dump appeared in the local media. The first story related to the departure of Chris Skelly, the company director of Skelly Holdings and CRRC, who was described as "an English overstayer" who was "leaving his Christchurch demolition and recycling business in what appears to be dire financial straits and potentially with a huge mess to clean up (Van Benyen, 2012b)". The next day it was announced by ECan that dumping at the site could continue, as long as the company minimised the dust nuisance. When the ECan representative Nathan Dougherty was asked how many complaints would be required before the facility closed down, he responded by stating it depended on the seriousness of the activity complained about. Christchurch Earthquake Recovery Authority (CERA) deputy general manager Baden Ewart, also in the same article, stated that CERA were working with ECan and the landowners, KiwiRail, to ensure any long-term issues associated with the materials onsite were mitigated. Mr Ewart also outlined that "ECan is the lead agency on this issue (Van Benyen, 2012c)".

On the second of May it was announced that the open-air dumping under the Durham St overbridge had been cleared and taken to various clean fill sites around Christchurch (*The Press*, 2012). However, this did not include the openly dumped material on the outskirts of the

warehouse, which still presented an eyesore and environmental risk factor to locals in the area. On the 8th of June it was reported that Skelly Holdings had entered into liquidation, leaving behind a dump, various significant debts and a multi-million dollar clean-up bill (Van Benyen, 2012d).

On the 16th of June 2012, it was reported in the Press that the urban dump may contain asbestos, but that it had not been confirmed. To quote this article at length:

“KiwiRail property manager Neil Buchanan was asked by The Press whether the taxpayer-owned company had tested the material and what the results were.

He said: “We suspect that some of the material inside the shed may include asbestos. This is based on uninformed opinion.

“We will be in a better position to confirm the presence of asbestos when we start to sort the material once we decide on a disposal method.

“Because the presence of asbestos has not been confirmed, we have not informed any authority. We are still seeking information about other disposal options for consideration.

Industry sources say the pile almost certainly contains asbestos because the site was uncontrolled.

The contractors had every motivation to get rid of material they might struggle to get into other landfills, they said (Van Benyen, 2012e)”.

The issue of which authority is responsible for the testing of asbestos on the site becomes quite complicated. A CERA spokeswoman claimed that contractors demolishing buildings were responsible for scoping and reporting the presence of asbestos, and if asbestos was detected, to notify ECan. ECan claimed that the site had not been tested for asbestos, and referred the reporter to CERA and the Labour department, claiming “it was not part of ECan’s function to test dumping sites (Van Benyen, 2012e)”. The Labour Department, in response to the reporter, stated that contractors had to notify them of the presence of asbestos before testing

could occur. This begs the question, on a dump which is now in a state of abandonment, who will contact the Labour Department to test for asbestos? If nobody enquires, which authority is responsible for the cleaning up and disposal of this possibly dangerous pile? As the city council water and waste unit manager, Mark Christison, argued in response to the North-Eastern Christchurch asbestos dumping, “as far as health and safety legislation is concerned, asbestos is asbestos (Gorman, 2012)”.

6. DISCUSSION AND CONCLUSION

The case of Skelly Holdings central Christchurch demolition dump illustrates the morbid symptoms that can occur when a city recovers from a disaster. The removal of precautionary checks and balances to promote speedy recovery from disasters, as supported by existing and specially created local authorities, are directly responsible for these occurrences. If the dynamics of local body politics is, however, as Molotch (1976: 313) claims, driven by the organized effort of a local elite to promote re-growth, should this outcome be surprising?

Of the five factors of Molotch’s growth machine hypothesis, I believe three are illuminated by this case study. These are authorities promoting good economic conditions; the negative externalities of growth borne by the public; and that the promotion of growth is the essence of local government decision making. The first of these factors, I believe, is illustrated by ECan’s Brett Aldridge, who was quoted as saying they (ECan) were trying to help demolition companies operate “rather than weighing in with enforcement action as a first step (Sachdeva, 2011)”, despite the fact that the period for the abatement notice on open-air dumping had already ceased. Rather than have an illegally operating company shut down, or at least pay a substantial fine, the authorities decided a hands-off approach would be best, therefore, keeping Skelly’s employees paid (in the short term) and allowing demolition companies to dump and continue operation there. The negative externalities of these decisions – air pollution from a dump containing potentially dangerous asbestos – was borne by the local businesses and residents who were embedded in the area before the dump’s existence, and who still operate after its abandonment.

Two factors relating to the growth machine could not be substantiated by this case study – the degree to which Skelly Holdings or other demolition companies ‘lobbied’ local authorities for lax boundaries, and the extent to which decisions were made or influenced by politically powerful vested interests. Elite theories of politics often suffer from criticism relating to its lack of empirical validity – for instance, it may be possible to identify who held power over decisions regarding the dump - however, it is far more difficult to identify a consensus or *unity* amongst an ‘elite’ regarding this case (Horowitz, 1981: 376-377). Taking this a step further, Dahl argues that “I do not see how anyone can suppose that he has established the dominance of a specific group in a community or nation without basing his analysis on a careful examination of a series of concrete decisions”.

The last factor - that the promotion of economic growth is the essence of local government decision making, and thus, is the *essence* or quintessential factor behind the lax enforcement of boundaries - is, I believe, evident in this case study. A dump was consented to a new company run by an overseas citizen with no experience in the demolition and dumping of possibly dangerous goods. Despite flouting resource consents in the most obvious way, the company was allowed to persist, as enforcement of regulation was seen as being ‘not the first step’.

The growth machine theory may not offer a water-tight explanation of political decisions in an urban centre recovering from disaster, but it does offer a guide and a critical lens to view decisions in a manner which highlights the importance of capital and investment. Expansion of growth machine theory into other aspects of the earthquake recovery, such as the central city development plan, may offer further helpful insight.

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