FREE PLANTS AT YOUR DISPOSAL:

GATHERING PEOPLE AND PLANTS IN A COMMUNITY GREENING TRIAL

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ABSTRACT

People often have good intentions towards the environment but fail to act upon them. Here we report on a trial utilising free plants as an 'object-ive' means of getting people involved in community greening programs. The trials used free plants combined with an organised planting event. The results suggest that offering free plants to householders living near common land is a promising way of increasing initial engagement in community greening programmes. The numbers participating in the trial were encouraging, and feedback received from participants was very positive. The trial reiterates the important role of objects in the people-place interactions that constitute the urban environment, though it has to be emphasised that the practical 'do-ability' and success of any green initiative can only be found in its actual, continued use.

Keywords: free plants, urban public space, greening, disposal, community engagement

INTRODUCTION

It is 5.45 pm on a Tuesday night in February 2013, and along with a Wellington City Council ranger we are parked in a suburban street in Tawa. In the back of the ranger's ute are about sixty native plants, a collection of spades, crystal rain, and various other bits and pieces. We are nervously waiting for 6 pm to approach. This is the time we have asked the surrounding householders to gather and come with us to the Charles Duncan Reserve where we expect them to plant three of the native plants each. We are nervous because we literally have no idea whether anyone will show and, if they do, how they will react to what we have asked. As it turns out, a good number turn up, and they have no complaints about being engaged in the 'planting trial'. A few days later, we repeat the exercise, but this time we have previously delivered the plants to the

householders' doorsteps and have asked them to bring them to the Brasenose Reserve for planting. Again, we have no idea whether this is too pushy and will result in low numbers turning up or negative reactions. We are similarly relieved when a good number of people turn up. Returning to Wellington after the planting we overhear the ranger talking to a colleague on his cellphone. When he reports the planting evening having been a success, he has a distinct note of surprise in his voice. After he hangs up he admits to us that the rangers were sceptical about whether the trial was going to work. He contextualised his scepticism by explaining that a lot of his day had been taken up dealing with 'complainers' – people complaining about encroaching trees, asking when the council was going to weed riparian strips, and so on. It was an interesting way to finish the day, reiterating to us that what we had done was indeed a 'trial'. We took a rather large punt, and it seemed to have come off. In these two planting evenings we only experienced one 'complainer', and the vast bulk of people were friendly and supportive. How then had we been relatively successful with our small trial? (culled from fieldnotes and retrospective reflection).

The main aim of this paper is to report on our practical investigation into object-based means of getting people involved in community greening programmes. Though relatively simple, as far as we know we used a technique new to community greening schemes. Despite its relative uniqueness, it does have antecedents: our trial has its context in recent discussion of attempts to 'green' urban environments, thus relating to many issues including 'ecological restoration', 'biodiversity conservation', 'biophilic cities', and 'ecological sustainability and resilience'. Urban greening is now an integral practice in sustainable urban planning (Jabareen 2006). The study reported here is focused on a more specific part of urban greening, that is, 'community greening' initiatives: the provision of non-food 'native' plants to individuals for planting in either an existing reserve site or smaller public land sites with vacant space suitable for planting.[1]

In principle, New Zealanders should be favourable towards community greening, as they consider themselves to be highly concerned about the environment (Schultz 2005; Milfont, Duckitt, and Cameron 2006). Clearly, values are at stake here, and, as recent research has noted, environmental issues are not just matters of rational deliberation but also involve emotions and affect. For example, in the relatively new journal *Emotion, Space and Society*, DiEnno and Thompson report on their research into how emotions motivate volunteerism in urban ecological restoration, commenting that

> To fully understand how people relate to the environment, we need

know about the emotional, imaginative, and inspirational experi-
ences that individuals have in nature in addition to their scientific
beliefs and understandings. Without a closer look at how individu-
als develop a sense of stewardship in urban areas, we may be risking
the environmental future of these communities. (2013, 64)

This important point leaves open the methodological issue of how we access
the 'specific emotions expressed by ecological restoration volunteers'. Addi-
tionally, despite the theorised strength of values, affect, and emotion, there is
always a potential gap between principle and practice, as only a small number
of concerned citizens act upon their principles to participate in specific com-
munity greening projects, even if the plants are being offered free. This is a
good example of the so-called 'value-action gap' (Blake 1999), which itself is
a subset issue of the broader category of 'collective action problems' (Rydin
and Pennington 2000), that is, the difficulty of getting self-interested people
to cooperate for their own collective benefit. A recent development regarding
collective action problems stems from the so-called 'material turn' in the social
sciences (for example, see Miller 1998; Latour 2005; Woolgar and Neyland
2013; Sayes 2014). This suggests that we ask how material things can organise
certain publics in desired ways. We need to move beyond a view where people
are the key actors who do things to and in their environment, to one where
constructed objects and technology are participatory (see Marres 2012). Or,
to use Latour's (1992) terminology, we need to bring in the 'missing masses'
and consider the work of 'heterogenous engineers'. It is unobjectionable to say
that humans are surrounded by objects, but are they just 'placeholders', merely
transporting action from elsewhere? The material turn goes a step further to
argue that nonhumans demand a certain set of competencies by the actors they
line up, they in turn are changed by their circulation and change the collective
through their circulation (Sayes 2014).

To take an example that Latour (1992) works through, consider the case of
seatbelts in modern cars. We can attempt enforcement of seatbelt use by moral
force alone – thou *shall* wear a seatbelt – however, as we all know, this force
is easily broken. Still committed to improving seatbelt use, we can try to add
political imperative to moral force: thou *shall* wear a seatbelt *or* face legal
consequences. This is better, but still not sufficient. Consequently this is where
our attention can turn to 'heterogenous engineers'. Some of them emit an an-
noying beep if you are not belted in: thou *shall* wear a seatbelt or face the sonic
consequences. Others work on a connection to the car ignition: thou *shall* wear
a seatbelt *or* thy car shall not start. Technological developments like these are
increasingly familiar in the modern world (particularly given the rise of so-

called 'ubiquitous computing'): our collectives have in effect outsourced some of their regulating principles, some of their politics, some of their morality, to objects themselves.

The problem is we never know until the 'heterogenous engineers' go to work just how successful they will be or what other socio-technical entanglements will then develop. This is shown in Marres' (2009) work on 'green living experiments' where the focus is on attempts to change home consumption practices, employing green blogs and smart meters as object-ive means of encouraging sustainable living. The detailed scrutiny such object-ive techniques permit can be useful, but they can also lead to a feeling that the changes required are practically endless and thus can become 'uncontainable':

> Some bloggers enumerate the pathologies they started suffering from after embarking on green living exercises, from social deviance … to fixation problems … and the problem of getting lost in triviality. [Hence] they rob people of their sense of proportion, [and people become] unable to differentiate between the big and the small, the more and the less important. … More generally speaking, as green blogs document the trivialities, deviance and deceptions involved in practical attempts to engage with the environment, they make it seem practically undoable to perform involvement by material means. (Marres 2009, 128)

This points to the classic problem of the unintended consequences of purposive action. A key task then is to find participatory objects that make sustainable practices both 'practically doable', and durable. Recent New Zealand research by Farrelly and Tucker (2014) is a good example of the difficulty of this task. Their action research of small numbers of Palmerston North households shows that householders can significantly reduce their waste production, engaging in quite demanding changes in the process, suggesting that this change is practically doable. However, given the amount of effort involved, the important question remains of whether these changes can be sustained over time and extended to greater numbers of households, especially those ones who are less environmentally motivated, thus producing waste minimisation on a durable and collective scale.

To use an everyday term, there is always a problem of making people 'well disposed' to the efforts of sustainability initiatives. But that phrase itself deserves some rethinking in light of the material turn. As Munro (2013) has recently and usefully argued, the full senses of the word 'disposal' have been overshad-

owed by issues to do with 'waste'. This development stems from a too simplistic focus upon production and consumption which neglects the ongoing placing and re-placing of materials and how this is caught up in the moral framing of our worlds. As he says,

> far too many studies press ethical responsibility onto the consumer … or restrict disposal to the intricacies of getting rid of things. … I am seeking instead to recover a wider range of meanings to disposal than are usually attached by virtue of its contemporary conflation with the problem of 'getting rid of things'. As is conveyed through the concept of 'disposable income', as well as the familiar adage 'Man proposes, God disposes', disposal carries profound meanings about how we exercise discretion over the placing and arranging of things (Munro 2013, 213).

It is particularly this emphasis on placing and arranging things that our trial takes up, but before describing this there is one further framing point to make. Any mention of making people 'well disposed' raises the spectre of 'neoliberalism': because our case study is an example that could be talked of in terms of governance, accountability, responsibility, individual volunteers and so on, perhaps our discussion *should* mention 'neoliberalism'? While this point could be useful, we want to make it clear that this does not fit with our intention.[2] In justifying this, we can do no better than to quote Woolgar and Lezaun's recent discussion of the 'turn to ontology' coupled with an empirical example of the 'wrong bin bag':

> A key aspect of the shift from epistemology to ontology is to eschew standard recourse to 'context' – the invocation of overarching conditions, wider picture circumstances, origins and bases … Suffice it to say that it is easy to wrap up the whole 'wrong bin bag' story within various narratives about the continued, persistent interference of government and councils, the nanny state, an increasing climate of government by coercion, the growing emphasis on the need for individuals to take more responsibility for their own actions and so on. Instead, our interest here is to consider the practices that enable the mutual constitution of the properties of entities involved and the relevance of the context in which they are situated. (2013, 328)

In short, there are good theoretical reasons for being careful about invoking 'broader' contexts like 'neoliberalism' when dealing with quite specific case studies of the interaction between people and objects.

Our aim here is not to get involved in questions about a general theory of objects, nor politics, nor general trends in society, but to investigate how free native plants might be organised in a way that draws and gathers householders in community planting schemes. What are the 'materials and devices of the public?' (Marres and Lezaun 2011). Also, given that our case study as a trial is a kind of intervention, we need to detail the practicalities of engagement between academic research, the object of research, and the audience, which we turn to below.

STUDY CONTEXT

Like many town and city councils in New Zealand, Wellington City Council (WCC) has a community greening programme which provides native plants to people interested in environmental and ecological restoration projects. The WCC has been running a community greening programme for ten years, and the uptake of plants has been steadily increasing. Almost 24,000 plants or trees were distributed to volunteer community groups in 2012. The plants come at no monetary cost to those who volunteer, nevertheless, dues come in the form of expectations, not only to do the planting, but to put in the necessary time and effort through weeding and watering to promote plant survival. The WCC asks environmental community groups to agree to look after plants for at least five years, and such requests are at least in part due to increasing local government budgetary restraints (Moskell, Allred, and Ferenz 2010). However, restraint is not the full story as we might conceive that councils' motivations are as complex as volunteers' and that they are influenced by the work of urban geographers, urban planners, and urban ecologists who suggest that building partnerships between government, developers, and citizens is the most effective way to advance and augment urban greening practices (Jim 2004). Similarly, there has been a distinct global shift in thinking about conservation: not only is community-based conservation seen as the most effective form of conservation, but it can simultaneously achieve social development goals (Berkes 2004). The wide-ranging benefits for those participating in community greening programmes are also well documented. Interacting with 'natural' environments is good for health and psychological well-being (Gross and Lane 2007; Mccaffrey 2007); it builds stronger communities (Westphal 2003), provides educational opportunities (Tidball and Kransy 2009), and fosters community activism (Saldivar-Tanaka and Krasny 2004).

As such, detailing the benefits of community greening has been covered well elsewhere, and it was not our intention to make it an aim of the present research. Making this decision was one of the starting points of the research pro-

cess, which began in late 2012 when the WCC approached Victoria University of Wellington with the idea of co-funding a summer research scholarship under the title 'Urban Ecology'. The WCC proposed that we carry out research investigating the wider benefits of community greening schemes. They had previously funded research that concluded such schemes were beneficial (Cleghorn *et al.* 2011), but wanted a better idea of the exact nature of the benefits, specifically regarding so-called 'social capital'. Despite both of us being sociologists and social capital clearly being a sociological concept, this kind of inquiry did not appeal to us. As others have commented (see Fine 2010), the term suffers from imprecision which can lead to difficulties when it is employed in empirical studies. Luckily, we managed to convince the WCC that there was another way to conduct research on this topic, as outlined below.

RESEARCH DESIGN AND METHODS

Our research began from the everyday observation that the plants were provided 'free', and asked exactly how this was possible. The simple but important answer is that they can only be offered free because they exist as a distinct and moveable entity. In Munro's terms, they are a disposable; that is, only once a native plant has grown to a convenient size, and been potted in a planter bag, can it be offered free for someone to plant in a new site. These simple physical characteristics are easily overlooked, nonetheless they add up to an important realisation: given that the Wellington region has many public spaces available for greening, it is the combination of the two factors – mobile plant and place to be planted – that makes community greening possible. This realisation led to the initial idea for the project: rather than working on the supposedly positive disposition of individuals towards the environment, could we focus on the mobile plant itself, as the key object to enrol people in community greening programmes? We aimed to see what would happen if we delivered three free plants directly to householders' doorsteps or brought plants along to a planting evening where participants would be told about their local community greening scheme and then asked to plant 'their' plants.

Working to a tight time constraint – the research had to be completed over the three months of summer – we set up a relatively simple trial of delivery of free plants to neighbourhoods followed by an organised planting event. How many people would bring the free plants and come to the planting evening? What sort of people would they be, and would there be any indication of future participation in community greening programmes? Given the limited time available for the research, only four planting sites were chosen. Table 1 summarises the key elements of the research design, and indicates the type of data and method of data collection.

Table 1. *Research Process and Rationale*

	Research process	Rationale and details on data collection
1	Select four planting sites in reserves where existing community greening group volunteers are active (see descriptions below).	Better supporting the existing community groups through trialling ways of recruiting volunteers was an aim for this study. Community group leaders provide feedback on the trial, help choose planting sites, attend planting evenings, and publicise their community group through communications for the trial.
2	Send a letter to 25–30 households around the selected planting site, inviting them to take part in a trial and informing them: • That if they did not want to take part, they should email/phone us by a certain date. • When and how they would receive their three plants. • That there would be a 'planting evening' where they could join their neighbours in doing their planting, and that a park ranger and a member of the local community greening group would be available to help them with their planting. • That they are invited to join a Facebook group, set up for the trial.	There were two methods of delivery of the plants: 1. Plants delivered the day prior to the planting evening to all participants, asking them to bring the plants to the planting evening themselves. 2. Those attending the planting evening receive plants at the event; plants delivered to the remainder of participants who did not attend planting evening. Opportunity to investigate whether delivering plants before a planting evening encourages attendance. All plants were tagged so that plantings could be attributed to particular households.
3	Set up Facebook groups.	Monitoring the Facebook group pages provided data on whether it is a good tool for encouraging participation and engagement in community greening.
4	Some people opt out.	Data collected from those opting out; participants requested to provide a brief explanation for why they chose to opt out.
5	Planting evening.	Observations made and photos taken at planting evening regarding who attended and basic description of interactions.
6	Participants plant after the planting evening.	If people did not attend the planting evening event, they were invited to do the planting in the designated site at their convenience. The number of households that planted can be counted, and data on which households planted can be collected.
7	Participants encouraged to water and weed their plants.	On-going care of the plants is one indication of willingness to make a greater contribution to community greening.
8	Participants contribute to other community greening activities via a local community group.	Potential for people to join these groups and become 'permanent' volunteers after the trial – this would be one indication of the broader success of the trial.

As Table 1 shows, we used two main research methods. First, simple counting: we kept counts of the number of plants planted and the number of house-holders participating, and other relevant data. Secondly, there was qualitative observation and engagement. Both authors attended all planting events and were thus able to interact with householders so learning about their reaction to the trial. Fieldnotes were taken during and after the planting evenings, and, additionally, one of the authors took photos (see below) of both people inter-acting and the manner in which the plants were planted.

RESULTS

Table 2 (*over*) provides an overall summary of the main results of the research.

Column 6 in Table 2 shows an overall finding: excluding those who opted out, the number of households who participated by planting during or after the planting evening was 49 out of 91, or 54 per cent. If the cancellation of the planting evening at Site 3 is taken out of the equation, then we get a participa-tion rate at the planting events of 60 per cent (40/67). This is an encouraging result as it shows that over half of the households gave of their time and energy, turned up and planted their plants, in response to a means of enrolment which could be turned down relatively easily.

Column 2 shows that, out of the 111 households invited to participate, 20 tel-ephoned or emailed to opt out (18 per cent). In almost all cases there was opportunity to ask for a brief explanation as to why people wished to opt out. A clear majority of those who provided an explanation were supportive of the trial in principle, some were neutral, and a very small number were negative. Not 'being a gardener', being too old, and not having the time were the most cited reasons for opting out. Below, we supplement the basic quantitative find-ings with the qualitative data.

PLANTING EVENING OBSERVATIONS

For the first planting evening (in Charles Duncan Reserve), it seemed that many of the participants who attended were meeting each other for the first time. Similarly, despite the planting site being in a reserve which adjoined their properties, for some, it was the first time they had been in the reserve. The community group representative who attended had an opportunity to tell eve-ryone about the group's work at the beginning of the session and to hand out leaflets, but a number of the participants were familiar with him and the work of the community group. At this site, people were given plants on arrival. Most

Table 2. *Summary of Results*

	No. of households invited	No. of households opting out	No. of participants attending planting evening[1]	No. of households attending planting evening	No. of households planted after planting evening	No. of households that planted received plants	No. of plants planted at planting evening, or within 4 weeks	No. who joined Facebook group
Site 1	29	4 (14%)	11 (9 adults, 2 children)	6	8	14/25 (56%)	42	0
Site 2	30	11 (37%)	29 (12 adults, 17 children)	9	3	12/19 (63%)	36	1
Site 3	26	2 (8%)	0	0	9*	9/24 (37%)	27	1
Site 4	26	3 (12%)	17 (12 adults, 5 children)	8	6	14/23 (61%)	42	2
TOTAL	111	20/111 (18%)	57	23	26	49/91 (54%)	129	4

1 All planting evenings started at 6pm with an indicated duration of one hour
* Includes two people who attended the cancelled planting evening

of the eleven participants were competent gardeners.[3] The planting area was long, but the participants did not stray very far from one end of it, choosing spaces for planting near to each other. Despite the slopes they were planting on, people were keen to get into the planting work, and one man was clearly disappointed that more plants were not available for him to plant.

Like the first planting event, the second was held during a fine evening and was well attended. In this case, the second strategy was used; that is, plants were previously delivered to participants who then brought them along to the planting event. Almost thirty participants took part, and the wcc photographer present made the most of the good photo opportunities. Figure 1 below gives a good indication of the fine evening and the number who turned up. Digging the ground was much harder work here, and the younger participants needed help to do their planting. Despite the hard work required to get the plants into the ground, engagement with the planting process was high. Many of the residents that attended the event knew each other, and there was as much socialising as there was planting, particularly by the mothers and children of all ages. People arrived at different times, so there was no opportunity for a formal introduction by the community group member, but there was scope to circulate for publicity purposes, and, again, many people knew of the group's work, so updates about the latest projects were given. Similarly, there was also opportunity for the ranger to let people know about other wcc services.

In heavy rain and brisk wind, two people attempted to come to the third planting evening (in Bell Road Reserve) which had to be cancelled. Consequently, the entire plant allocation for the neighbourhood then had to be delivered in

Figure 1.

bad weather conditions. The extreme wind may have been a factor in some plants going astray; an email received from one participant a week later stated that he found a number of plants blowing down the road. Nevertheless, as Table 2 shows, nine out of 26 households planted their plants some time after the cancelled planting evening.

The rain had stopped in time for the fourth planting event at Hanson Street Playground, but a cold southerly wind remained. Nevertheless, the event was well attended, with seventeen participants turning up with their plants. Planting was quite a brisk affair for most. There was joking and chatting between some of the neighbours and the community group co-ordinator particularly about the rubbish that surfaced as people were digging. In part, this site was selected as a planting area to discourage people from using it as a tip. The community group organiser got the chance to greet and circulate amongst participants, inform them about the work of the group, and gather up a number of email addresses from participants who said they would be interested in doing more planting later in the year. As with the two other planting evenings, the crystal rain – a gel that aids in hydrating the plants – caused curiosity in both children and adults alike (see figure 2 below), thus adding to the friendly tone of the planting evenings.

Figure 2.

ENGAGEMENT WITH FACEBOOK

As shown in Table 1, part of the research process involved setting up Facebook group pages for each of the planting sites. Despite mention of the Facebook group in all communications with participants, only four people from the 97 participating households joined the groups. However, we have no way of knowing whether people looked at the pages but did not join. Through email communication with individuals and the use of photographs that were loaded on to the pages for other purposes, we know that people who did not join visited the pages. The Facebook group pages included a video that we made providing instructions on how to plant. Two weeks after uploading it and after plants had been delivered, this video had 13 views. This is not a large number, nevertheless it indicates that social networking resources could be pursued as part of community greening programmes. Reinforcing this finding, there was one surprising success with electronic media, in that one of the participants created a video about the plantings and uploaded it to YouTube as part of their blog. This video had 85 views almost two weeks after posting and was later publicised via a newsletter that went to 1,200 local residents (along with photos of participants of the trial). The blog was complimentary about the trial and the reserve; however, they had understood the planting as a one-off activity, stating that the plants did not need ongoing watering, and confused the work of the community group with our trial initiative.

OBSERVATIONS AT THE REVISITS

We revisited the four sites on February 24, 2013, almost four weeks after the initial planting evenings, and on May 30, four months after the plantings. These visits showed that a significant number of householders who could not or did not wish to attend the planting evenings engaged in the project sufficiently to do their plantings independently. There was evidence of effort put into some of this planting; for example, some planting had been done a considerable distance from access tracks or on steep slopes. Most noteworthy was that in the Bell Road Reserve, the site for which the evening planting was cancelled, a total of 27 plants had been planted by householders. While it is not possible to know exactly who planted these, this represents a significant effort by a good number of householders, again reiterating the finding that neighbourhood engagement with the project was very good.

Four weeks after the planting evenings, very few plants were wilting or showing ill-effects of the transition from nursery to open ground. The vast majority of plants were doing very well. There was clear evidence of watering at one site

(i.e., dampness around the plant), but the first return visit occurred during a hot, dry spell of weather, making it unlikely that signs of watering would last very long. On the four-month post-planting revisit, we noted only a handful of plants that were not healthy and could see only one dead plant. There was clear evidence of some attention having been given to the plantings, and in general the plants were flourishing.

DISCUSSION

The method of using free plants as an object-based invitation to encourage people to engage with the green space in their neighbourhood, and with their neighbours, seems promising. There was slightly larger attendance at the planting events when we delivered plants to people prior to the planting events (Sites 2 and 4, with nine and eight households attending respectively), but with such a small sample it is difficult to tell whether this is necessarily a better technique than one in which the plants are brought to the site (Site 1; six households). We have little data about how the letter inviting participation was received and whether it makes any difference that this trial was framed as a 'research project'. It is possible that the reputations of both organisations involved – the wcc and Victoria University of Wellington – played some part in the response to the trial, making it in some way notable to householders. That a relatively high proportion of those who opted out claimed to do so because they did not consider themselves gardeners perhaps indicates that we did not manage to enrol people for whom a lack of gardening skills is a barrier to volunteering.

There were distinct social patterns regarding the participants of the planting evenings, particularly relating to age groups. A number of young adult participants attended with their parents, but the lack of representatives in the 20s–30s age range was clear. It seemed that many adults attended primarily to use the experience as stimulation and teaching for their children, as Figure 3 below indicates.

In addition to the age of participants, there are a host of other factors that we can speculate upon regarding the varying levels of engagement with the trial. Certainly, comparing a planting evening during a storm versus balmy, calm weather suggests that weather conditions affected the outcomes of the planting evenings. The familiarity of the neighbours with each other and the community group coordinators was a factor in making the planting evenings more enjoyable and relaxed. There are hints in our small study that different street lay outs can foster more neighbourly behaviour. The participants of the best-

Figure 3.

attended planting evening, and who seemed to have more familiarity, lived in two cul-de-sacs, which gave them a feeling of enclaves within the neighbourhood. If the free plant/planting event model is reproduced, strategising that includes an assessment of the familiarity of neighbours, personalities of the organisers, and location of houses in relation to community greening sites might be considered. Further, as in the case of the reserve area previously used as a rubbish tip but which is now part of a planted-up community greening site, there may be scope for targeting 'problem' spaces. Ultimately, the reasons why local environmental groups or regional councils might want to seek the help of individuals for the improvement or upkeep of green spaces will vary from place to place, as will the success of the methods employed to get people involved. We nevertheless hope that our tentative findings will be of use to different audiences who have an interest in encouraging people to get involved in community greening.

There is perhaps an opportunity for further research about how understandings of community group volunteers' activities are influenced by their sense of ownership, or custodianship, of the spaces in which they work. The volunteer groups have made some useful and obvious changes; for example, in one case transforming a neglected and weed-filled piece of unused land into an

accessible green space. The planting trials were mostly successful;[4] however, individual participation in these planting events does not indicate long-term commitment to further community greening activities with local groups, or even to further care of the plants participants put into the ground. With that proviso made, the planting events were significant in themselves. That is, a tangible sense of community engagement was generated, plants were planted, people talked and socialised with each other, and the wcc did well out of the events in terms of a 'feel good' factor. Also, existing volunteers who led community greening programmes gained some contact names and addresses in a positive context, which has to be thought better than 'cold calling' techniques for enrolling volunteers. There seems to be merit in further considering and refining the techniques employed in our initial trial.

CONCLUSION: AT YOUR DISPOSAL

Our trial using free plants themselves as an object of enrolment is a 'practically doable' technique for making everyday people 'well disposed' to getting involved in a change to their local environment. It is easy to see how the full sense of 'disposal' figures in our above discussion.

In one sense, the wcc has plants to *dispose* of: it grows a large number in its nurseries, hoping that they can be *placed* in appropriate sites. Many of these sites are problematic areas in the city. They are too steep, too small, too full of rubbish, too hidden away; in sum, they are close to being waste spaces that any council would like to *dispose* of. But given the *mobility* of our nursery plants, their ability to be rearranged, they can be taken up and used as a *disposable-in-itself*, that is, in the sense of the question, 'Can we place the plants in a way that disposes people to get involved in a small-scale community greening scheme?'

So, we literally either *placed* them on householders' doorsteps or brought them along to a planting evening, thus hoping that the residents would be *well disposed* both to us as the organisers and to the plants themselves. On the latter point, we were somewhat banking on the 'halo value' of plants, given the widely known problems of environmental degradation; that is, we guessed that any annoyance coming from the trial's demands would be small, with overriding positivity about plants prevailing. The plants did much of the social connection work for us, and, as we have shown, the answer to the questions, would people take up the plants, bring them to the planting evening, and plant them, was clearly yes. There is some small hope that they would even go the next step and be *disposed* to join further activities of the local community greening groups, although at the moment this remains a hope.

There is a final point that needs to be emphasised. Our trial shows that attempts to enrol everyday people in sustainability initiatives do not necessarily have to be technologically complex. There are many ways of using smart technology to measure and monitor what people do, and of course contemporary social media is frequently seen as a realm that must be engaged if we are attempting to change social behaviour. Our trial definitely required organisation, and this was helped by modern communication networks; however, at heart the success of our trial came down to its dependence on a simple object – containerised plants – that is so common in society as to be taken for granted. But therein lies its power: once a free plant appears on your doorstep, with an appeal to join a planting event, everyone knows the dynamics involved. Moreover, these shared dynamics have subtle moral power. If the plants are not planted some-where, they will die. It is indeed easy enough to ring the researchers and get the plants taken away, but then no doubt the researchers will ask for reasons for non-participation and so on. So, in a variety of ways, the little plants sitting on the householder's doorstep are disposing people to get involved. This is not without exception, but there are enough indications from our trial to suggest that the relatively simple placing and arranging activities we have employed could be part of broader practically doable green and sustainability initiatives.

Thus our emphasis is a remarkably pragmatic one, but one that tends to be overlooked in research with a similar focus and intent. While not claiming our research is a 'scientific trial' nor a precise ethnography, the following com-ments from Latour seem apt: 'Instead of defining a science by its detachment, we define it by its attachments. Instead of recognizing a science by the absolute exactitude of its knowledge, we recognize it by the quality of the collective experience it builds with others, the civil averages that trails in its wake' (2000, 125). In a sense then, we think there is a step prior to the search for the good intentions and emotions that motivate volunteers to get involved in either community greening schemes or ecological restoration programmes. That is, we can ask, to what exactly is it that people are attached? If it is to native plants, then through what methods of placement, through what precise means of social organisation, can volunteers be enrolled to plant them in collectively beneficial schemes? In our case the plants in the ground in our four trial sites are something like a 'civil average that trails in the wake' of our small research project. Without our trial they may still be in the wcc nursery, becoming root-bound, excess to requirements; with our trial they have a chance to grow 'naturally', to get 'down to earth', perhaps even to educe further attention from community members. It is not quite so simple as adapting the saying 'build it and they will come', nevertheless, through some attention to placing plants in the right contexts, at the right moments, the public may indeed come.

NOTES

1   We note in passing that the term 'native plant' itself deserves a paper in its own right, but there is not sufficient space here even to open up the term; however, see Mastnak, Elyachar, and Boellstorff (2014) and Helford (1999) for discussion of 'native plants' in the US which provides a good indication of the conceptual issues involved.

2   See Pudup (2008) for a discussion of 'cultivating citizen-subjects in organized garden projects' which does mobilise 'neoliberalism'; however, it is for the most part a good description of community gardening, where the critical examination of neoliberalism seems to add a theoretical gloss to the discussion. We would also like to note that, while we are favourably citing work from Actor-Network Theory (ANT), we are well aware that it too has its weaknesses, including a tendency to be a 'theory of everything' (see Lynch 2013). Rather than adopt a literature-heavy approach and go through these weaknesses, we are following ANT's emphasis on empirical research. That is, we want to treat the 'matters of concern' of community greening 'not as a master category with which to frame an ontology but as a topic for ontography' (Lynch 2013, 13). We take Lynch's neologism 'ontography' in the simple manner he suggests, that is, to provide a descriptively rich empirical case study, and this is our main intent.

3   A couple and their young child turned up early to take their plants, explaining that they could not join the planting evening at that time. They returned at a later date to plant.

4   An anonymous reviewer asked for greater clarity about the measure of success for the trial. We accept that we have no accurate measure of success, nevertheless, to invert the logic, in an everyday sense it does not seem sensible to say that a 60% participation rate of households was poor or an indication of failure. The

case cannot be pressed too far, but, in comparison to common response rates in other social science research, 'successful' seems an apt enough descriptor. This seems clear when we look at the participation rates of research projects whose objects of study were other wcc greening schemes or urban human-wildlife conflict that ran concurrently with the present research. Berentson's (2013) postal questionnaire of 750 households had a 30.5% response rate. Kerry's hand-delivered questionnaire to households gained 635 responses from a total pool of 1,030, with Kerry commenting that this was 'an *extraordinary* survey return rate of 61.8%' (2013, 45; emphasis added).

REFERENCES

Berentson, P. 2013 'Twenty years of proving free plants in an urban New Zealand setting: What affects community participation and planting success?' Unpublished Master of Science thesis, Wellington: Victoria University of Wellington.

Berkes, F. 2004. 'Rethinking community-based conservation.' *Conservation Biology* 18 (3): 621–630.

Blake, J. 1999. 'Overcoming the value action gap in environmental policy: Tensions between national policy and local experience.' *Local Environment* 4: 257–278.

Cleghorn, M. 2011. Growing Individuals, Growing Communities: Well-Being Outcomes of Participating in Ecological Restoration and Community Gardening Initiatives. Unpublished report. Wellington: Dept. of Public Health, University of Otago.

DiEnno, C.M., and J.L. Thompson. 2013. 'For the love of the land: How emotions motivate volunteerism in ecological restoration.' *Emotion, Space and Society* 6: 63–72.

Farrelly, T., and C. Tucker. 2014. 'Action research and residential waste minimisation in Palmerston North, New Zealand.' *Resources, Conservation and Recycling* 91: 11–26.

Fine, B. 2010. *Theories of Social Capital: Researchers Behaving Badly*. London: Pluto.

Gross, H., and N. Lane. 2007. 'Landscapes of the lifespan: Exploring accounts

of own gardens and gardening.' *Journal of Environmental Psychology* 27 (3): 225–241.

Helford, R.M. 1999. 'Rediscovering the presettlement landscape: Making the oak savanna ecosystem "real".' *Science, Technology, and Human Values* 24: 55–79.

Jabareen, Y.R. 2006. 'Sustainable urban forms: Their typologies, models, and concepts.' *Journal of Planning Education and Research* 26 (1): 38–52.

Jim, C. 2004. 'Green-space preservation and allocation for sustainable greening of compact cities.' *Cities* 21 (4): 311–320. doi:10.1016/j.cities.2004.04.004.

Kerry, C.E. 2013. 'Urban Human-Wildlife Conflict.' Unpublished Master of Conservation Biology Thesis, Wellington: Victoria University of Wellington.

Latour, B. 1992. 'Where are the missing masses? The sociology of a few mundane artifacts.' In *Shaping Technology/Building Society*, edited by W. E. Bijker and J. Law, 225–258. Cambridge, MA: MIT Press.

——. 2000. 'Is there science after the Cold War?' In *The Sokal Hoax: The Sham that Shook the Academy*, edited by the editors of *Lingua Franca*, 124–126. Lincoln: University of Nebraska Press.

——. 2005. *Reassembling the Social: An Introduction to Actor-Network Theory*. Oxford: Oxford University Press.

Lynch, M. 2013. 'Ontography: Investigating the production of things, deflating ontology.' *Social Studies of Science* 43 (3): 444–462.

Mccaffrey, R. 2007. 'The effect of healing gardens and art therapy on older adults with mild to moderate depression.' *Holistic Nursing Practice* 21 (2): 79–84.

Marres, N. 2009. 'Testing powers of engagement: Green living experiments, the ontological turn and the undoability of involvement.' *European Journal of Social Theory* 12 (1): 117–133.

——. 2012. *Material Participation: Technology, the Environment and Everyday Publics*. Basingstoke: Palgrave Macmillan.

Marres, N., and J. Lezaun. 2011. 'Materials and devices of the public: An introduction.' *Economy & Society* 40 (4): 489–509.

Mastnak, T.,J. Elyachar, and T. Boellstorff. 2014. 'Botanical decolonization: Rethinking native plants.' *Society & Space* 32 (2):363–380.

Milfont, T.L., J. Duckitt, and L.D. Cameron. 2006. 'A cross-cultural study of environmental motive concerns and their implications for proenvironmental behavior.' *Environment and Behavior* 38 (6):745–767.

Miller, D., ed. 1998. *Material Cultures: Why Some Things Matter*. Chicago: University of Chicago Press.

Moskell, C., S.B. Allred, and G. Ferenz. 2010. 'Examining motivations and recruitment strategies for urban forestry volunteers.' *Cities and the Environment* 3 (1):1–28.

Munro, R. 2013. 'The disposal of place: Facing modernity in the kitchen-diner.' *The Sociological Review* 60:212–231.

Pudup, M.B. 2008. 'It takes a garden: Cultivating citizen-subjects in organized garden projects.' *Geoforum* 39:1228–1240.

Rydin, Y., and M. Pennington. 2000. 'Public participation and local environmental planning: The collective action problem and the potential of social capital.' *Local Environment* 5 (2):153–169.

Saldivar-Tanaka, L., and M.E. Krasny. 2004. 'Culturing community development, neighborhood open space, and civic agriculture: The case of Latino community gardens in New York City.' *Agriculture and Human Values* 21 (4):399–412.

Sayes, E. 2014. 'Actor-Network Theory and methodology: Just what does it mean to say that nonhumans have agency?' *Social Studies of Science* 44 (1):134–149.

Schultz, P.W. 2005. 'Values and their relationship to environmental concern and conservation behavior.' *Journal of Cross-Cultural Psychology* 36 (4):457–475.

Tidball, K., and M. Kransy. 2009. 'From risk to resilience: What role for community greening and civic ecology in cities.' In *Social Learning towards a Sustainable World*, edited by A. Wals, 149–164. Wageningen: Wageningen Academic Publishers.

Westphal, L.M. 2003. 'Social aspects of urban forestry: Urban greening and social

benefits: A study of empowerment outcomes.' *Journal of Arboriculture* 29 (3):137–147.

Woolgar, S., and J. Lezaun. 2013. 'The wrong bin bag: A turn to ontology in science and technology studies?' *Social Studies of Science* 43 (3):321–340.

Woolgar, S., and D. Neyland. 2013. *Mundane Governance: Ontologies and Account-ability*. Oxford: Oxford University Press.