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**Community Gardens:**  
**Growing plants or people?**

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A thesis  
submitted in partial fulfilment  
of the requirements for the Degree of  
Master of Social Science

at  
Lincoln University  
by  
Lynette Joy Minchington

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Lincoln University  
2014

Abstract of a thesis submitted in partial fulfilment of the  
requirements for the Degree of Master of Social Science

Community Gardens:  
Growing plants or people?

by

Lynette Joy Minchington

To the casual observer, community gardens may look like places where people just come to grow fruit and vegetables. Through digging beneath surface appearances, however, the research literature suggests that there is more to the creation of and participation in community gardens than that which is immediately apparent.

The overall aim of this research was to explore and interpret the meaning of community gardens in terms of the sought and experienced well-being of the individuals who participate, and their associated communities. This research was undertaken in the Christchurch/Selwyn district, in the aftermath of the Christchurch earthquakes of 2010-2011.

This research utilised the technique of photo-elicitation interviews to study the meanings attributed to community gardening, in the post-earthquake environment. Five gardens were investigated. Results show that a range of meanings, and well-being outcomes are experienced through a combination of physical, educational, aesthetic appreciation, contemplative, creative and social connections within the garden and within the overall context of nature. Significantly, within the post-earthquake environment, the community gardens can offer participants the opportunity to appreciate life and what it means for them.

**Keywords:** community gardens, photo-elicitation interviews, disaster, Christchurch earthquake, well-being, nature, aesthetics, sensory, social, creative, memories, contemplative, nurturing, healing, education.

## **Dedication**

For Stalena and Lilian, my precious grand-daughters.

You are an inspiration to me to 'live in the moment,' and to notice and enjoy what is around me, as  
you do.



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# Chapter 1

## Introduction

### 1.1 Background to the research

To the casual observer, community gardens may look like places where people just come to grow fruit and vegetables. Through digging beneath surface appearances, however, the research literature suggests that there is more to the creation of and participation in community gardens than that which is immediately apparent.

My experience before beginning this research was only with private gardens, not with community gardens. So I became curious, and began to wonder, about why people garden in groups, when it appears that they could do the same activity at home, as a solo activity? Gardens have long been a form of leisure, food provision, and visual pleasure. Many people have gardened at home for centuries, so it is therefore not necessary to garden in a group. Nevertheless, it is known that people join leisure groups to partake in activities they enjoy (Bishop & Hoggett, 1986). It seems from the literature, that there may be something about this particular group activity that contributes in a positive way to the enjoyment and potentially the well-being of those involved. This thesis will explore what that 'something' is, along with investigating other potential meanings.

It is also important to note that community gardening takes place in a natural, outdoor environment. This environment makes nature available to a wide range of people of all ethnic groups, genders, ages, socio-economic groups (for example one does not need to have a car to be able to escape to the mountains or the bush), the physically and mentally able or disabled, or those with inadequate space to garden at home. Community gardens are often found in prisons (Pudup, 2008), schools (Pudup, 2008), and used in therapeutic horticulture (Elings, 2006; Pudup, 2008). Given that community gardening takes place in a natural (if modified) environment, that context of the connectedness with nature – that is known to be important for well-being (Howell, Dopko, Passmore, & Buro, 2011; Kaplan, 1995) – suggests that it could be a significant aspect for understanding community gardening.

I began thinking about the healing and well-being aspects of gardening many years ago. I had read about sensory gardens (Don, 1997; Minter, 1995), scented and tactile gardens for the blind (Minter, 1995) and healing gardens (McLeod, 1989; Minter, 1995). Once, when I was weeding in my home garden, I had an idea which seemed to me to have a connection between the way we care for plants, and the way we care for ourselves.

*To totally remove unwanted plants you have to get to the root, otherwise the plant comes back. Sometimes the plant comes out easily, or it may take a bit more effort to get it out. Sometimes the plant is separate, and sometimes these roots are firmly inter-twined in another plant you want to keep- something that is precious and beautiful. If you are too hasty, you can destroy part or all of that 'something'. When we get tired we tend to rip out plants without care. You need to be really patient and careful when searching for the root, so as not to destroy anything else. Sometimes you can't find it immediately, and need to go back- but often it becomes even more inter-twined if you do this. Is it better to persist or come back when it may or may not be easier? How can we know or decide this? Watering may soften the soil and enable the plant to come out more easily.*

*People are like plants, and weeding is similar to our own decisions about sorting and discarding things in our lives. The unwanted plant is like the 'stuff' we need to let go of. When the plant is on its own, it's as if we have identified what that 'stuff' is. Like the water softening the soil, sometimes our tears can clear our minds.*

*What does it mean when something we want to destroy is inter-twined in something precious? Maybe if something is deeply embedded you have to risk losing a little of the existing beauty along with unwanted 'stuff', to allow something new to grow in the space. It's better not to let it get too deep, and to do something before it gets to that stage if possible.*

(Minchington, c.2000, unpublished).

These were some of the thoughts I had before beginning my formal research. I will now contextualise my research setting. The setting for my study is the Christchurch/Selwyn district, in the aftermath of the Canterbury earthquakes of 2010-2011. The region experienced two major earthquakes, the first on 4 September, 2010, and the second on 22 February, 2011, and thousands of continuing aftershocks. The first major quake was centred in a rural area to the west of the city, and although it caused widespread damage, there was no loss of life. The second major quake caused devastating damage to the central city, including the loss of 185 lives and many injuries, some severe. Since then the region has been working through the rebuilding process, which is likely to be a lengthy one, at both the physical level of creating new buildings, and at the social and psychological levels, as people rebuild their lives.

Within this post-earthquake context, my research explores the meanings of community gardens to the individual, and examines the possible well-being implications of these for the broader community and society. Some of these meanings may be associated with tangible outcomes, such as food production and productive use of the land, and some may be intangible, such as social contact, individual development and psychological well-being, and healing after a traumatic event. An obvious point of difference that my study has from other studies of community gardening, is the



influence of the Canterbury earthquakes on the operation of these gardens, their membership and the experiences had, and experiences sought from the gardens. The post-earthquake environment, which has affected everyone in Christchurch to a greater or lesser extent, may also have had an influence on participant responses. I also became aware of the importance of the natural physical environment during my interviews and in the analysis of my data. These are not groups of people 'meeting in the local hall', and the natural physical environment is an integral part of the whole experience. Because of this and also my interest in that particular aspect, I have focused my thesis in that direction. This weighting towards nature and the earthquake is reflected in my discussion and second 'retrospective' literature review, in Chapter Five. This emphasis adds an original and possibly unique dimension to this study.

## **1.2 Research Aims:**

The overall aim of this research was to explore and interpret the meaning of community gardens in terms of the sought and experienced well-being of the individuals who participate in them and the effects of the gardens on associated communities.

## **1.3 Research Objectives:**

Consistent with this aim, the objectives of this research were to:

1. Provide an account of why people participate in community gardening, and what meaning the garden has for individuals.
2. Identify the role and functions community gardens provide for local communities.
3. Identify the types and levels of well-being gained by individuals and communities from participation in community gardens.

## 1.4 Organisation of the thesis

The thesis is organized into five chapters.

**Chapter One** is comprised of the Introduction, covering the background to the research, the research aims and the research objectives.

**Chapter Two** is comprised of the initial Literature review.

**Chapter Three** provides a detailed discussion of the methods used in the research and the rationale for the choice of methods. The gardens included in this study are described, and a discussion of the research approach is presented.

**Chapter Four** presents the findings of the research, organised around the research objectives.

**Chapter Five** comprises a discussion about my results interwoven with a review of added literature, to make sense of the results.

**Chapter Six** comprises the final discussion.

## Chapter 2

### Literature Review

The initial part of this literature review covers some historical aspects of gardening, and traces the ambiguity of public and private gardens in New Zealand. This is followed by the literature relating to the meanings of community gardens and well-being that have been found to be significant in the research literature.

#### 2.1 History of gardening in New Zealand.

New Zealanders have an extensive history of involvement in gardening, which has been a significant form of leisure for centuries (Leach, 1984). Creating a garden was one way the early colonial settlers re-established themselves in an unfamiliar landscape, as the garden gave them a sense of place, with many of the plants originating from 'home' (i.e., usually Britain). The settlers were nostalgic for sights and sounds of home and the fragrant plants created memories which meant that "[g]ardening was an important part of the psychological process of coming to feel at home in New Zealand" (Dalley & Labrum, 2000, p. 83). Dalley and Labrum (2000, p. 87) also noted that the garden was

*an intriguingly ambiguous space; designed mainly to be private, it could become public upon occasion as a place for family recreation, a venue for entertainment and ceremonies, and an essential part of the face the property presented to neighbours and passersby ... [a] fine garden was an asset to the community, giving notable visitors a favourable impression of progress ... part of the sense of achievement in creating a fine garden lay in sharing it with the community.*

This ambiguity in defining garden space as sometimes private, sometimes public, continued into the next generation and beyond. In an article on twentieth century home gardening in New Zealand, Helen Leach noted that the layout of the household garden can be traced to Britain. At the beginning of the twentieth century, the basic features consisted of the formal flower garden at the front and sides of the house, with the vegetables situated at the rear, out of public view (Leach, 2002, p. 224). Some adaptation of the ways of the 'motherland' was necessary, however, as most suburban New Zealand gardens required windbreaks in the form of trees and hedges, and shelter belts around country homesteads. For that reason, the "principle of exclusion, applied to British gardens primarily for social reasons, was reinterpreted in New Zealand as an environmental or aesthetic necessity" (Leach, 2002, p. 220). However, it seems there was also an "unstated social imperative for privacy",

as advice was also given “that the front door be screened by a rustic fence, arch, or shrubbery from the sight of someone passing the front gate” (Tannock, 1914 as cited in Leach, 2002, p. 220).

Vegetable gardens were important during the inter-war period, but from as early as 1947, the home vegetable garden received less attention and the flower garden gradually increased in popularity. The view at this time was that vegetables could be purchased from the greengrocer, but flowers could not be obtained as cheaply from a florist (Leach, 2002). Organic gardening made vegetables fashionable again in the 1990s (Leach, 2002).

The front lawn became a feature of household gardens, and in post-war state housing developments, an attempt was made to eliminate front and dividing fences, and “contribute to the sense of being part of a large community garden” (Firth, 1949, as cited in Leach, 2002, p. 224). However, this became more of an “extended street playground” and when these houses became privately owned fences and walls were once again erected “in keeping with the widespread desire for a garden that excludes the external environment” (Leach, 2002, p. 224).

Today, many New Zealanders remain proud of their household gardens. Popular gardening magazines such as *The New Zealand Gardener* focus on such gardens, with ideas for integrating house and garden, and for developing private outdoor living areas. Given the history of gardens created for privacy, and seemingly also for the exclusion of the external environment, it is interesting that recent times have seen the growth of community gardens. This growth is taking place both locally and internationally (Earle, 2011). Earle described community gardening in New Zealand as “a variety of horticultural activities that either have a community component or are located on public land.... including allotments, communal gardening, marae gardens, shared gardening on private land and community-based initiatives to encourage home gardening” (p.iii). Community gardens are also “bottom-up community based” initiatives, as distinct from green spaces such as botanical gardens that are organised by top-down government organisations (Okvat & Zautra, 2011, p. 374).

Internationally, some types of communal gardening have a long history. Allotment gardens in England, for example, consist of individual plots in a ‘common’ public setting. Allotment gardening has long been related to economic crisis and hardship, and has also provided a place to escape from the anxieties of daily life, frequently from overcrowded urban housing environments (Crouch & Ward, 1988). In America, community gardens, and ‘Victory Gardens’ were cultivated to increase food supplies during the Great Depression and after both World Wars (Okvat & Zautra, 2011). In New Zealand, potatoes were grown in Christchurch’s Lancaster Park during the First World War. It seems that, according to the media, the prime purpose was to sell the potatoes to provide much needed finance to support the upkeep of the park due to the downturn in sport because of the war (“Lancaster Park: The Potato Proposal”, 1917), but it did have the added benefit of providing space

to grow food). Similarly, in New Zealand, during the Great Depression of the 1930's, involvement in community gardening was seen as a way to assist the unemployed to feed their families, particularly for those who had no available land. An article from the period ("The Vegetable Patch," 1933) reports that those who failed to take advantage of the facilities provided for growing food, would be refused relief work until they complied with this requirement.

Until recently, urban community gardens in New Zealand and Australia were not viewed with the same importance as in countries such as America and Europe (Trotman & Spinola, 1994). This is because residents in New Zealand and Australia benefitted from ownership of the 'traditional quarter-acre block', and therefore had the space to garden in self-contained properties (Trotman & Spinola, 1994). However, with more densely populated contemporary urban areas, featuring larger houses on small sections, and high-rise apartment-style buildings in cities, people may not have had available space at home for a garden, and therefore participation in a community garden would become an alternative. Okvat and Zautra (2011) note that community gardeners are typically urban-dwellers who have limited access to land for growing food. This is not always the case, however, as many people still do have gardens at home so participation in community gardening is presumably also through choice and not only through necessity.

As already mentioned, the concept of community gardens is also interesting because gardening is an activity that does not require group participation for it to be achievable. This contrasts with those activities that cannot function without a group, such as yacht racing, which requires a minimum of two people to race against each other, or Scottish Country Dancing, which requires a group to make up the sets. The question then arises as to why community gardening has become popular in New Zealand –and for my study, specifically in Christchurch - and what meanings do individuals attribute to community gardening? Given its voluntary nature, there are likely to be underlying features about this particular activity that attract people to participate.

It does appear there is a strong desire to participate in group activities. In their book *Organizing Around Enthusiasms*, Bishop and Hoggett (1986) report that for almost every leisure activity they encountered that could be termed an individual pursuit, there exists a "self-organised collective form" (p.29). There are many people participating in many varied groups, thus suggesting one reason for this desire is that groups fulfil a major social function.

I will now cover some meanings for participating in community gardens that I identified before commencing fieldwork, from a scoping of the relevant literature. They are divided into physical, cognitive/emotional, contemplative/spiritual, and social, as literature on well-being is often categorised in these terms. The components of well-being suggested by Furness, 1996 (as cited in Kingsley, Townsend, and Henderson-Wilson, 2009), include "satisfactory human relationships;

meaningful occupation; opportunities for contact with nature, creative expression, and making a positive contribution to human society” (p.208).

## **2.2 Physical aspects of community gardening**

A tangible outcome of community gardening is the production of food, either for the participant’s own use, or to grow enough to be able to give away, sometimes to less advantaged people. Food is a basic human need, and healthy food and exercise are fundamental for the vital energy needed to enjoy life.

The faster pace of life, urbanisation and the increasingly global nature of the world we live in, is changing the way we live, our health and our perception of the environment (Arai and Pedlar, 2003, as cited in Kingsley et al., 2009, p. 207). It has been claimed that in modern society with its culture of pre-packaged and ‘fast food’, people are disconnected from the landscapes that sustain them (Hale et al., 2011). As urbanisation and industrialisation has increased, there has been a trend of separation of many people from the land. Consequently, fewer people grow their own food (Smith, 1982, as cited in Trotman & Spinola, 1994). Now that over the half the world’s population is urban (Thorns, 2002), fewer people are aware of the origins of their food, or have the experience of connecting with nature and getting their ‘hands dirty’ in the soil (Hale et al., 2011; Louv, 2010). Participation in community gardens can provide an opportunity to counter this trend, by allowing people to become connected with the source of food, of being part of the production process, with this “potentially affecting the ways communities think about food, environment and health” (Hale et al., 2011, p. 1855).

Further, “European research suggests that people who live proximate to areas of greenery are three times more likely to engage in physical activity and 40% less likely to be overweight” (Burgess Watson & Moore, 2011, p. 163). In an American survey of 766 adults, the fruit and vegetable intake of those people who were partaking in community gardens was compared with those who were not. Results suggested that “community gardeners were 3.5 times more likely to consume fruit and vegetables five times a day” (Burgess Watson & Moore, 2011, pp. 163-164). However the authors concluded that “[c]ommunity gardening may be an effective strategy for obesity, but participation on this basis may not be an effective method for ensuring it[combating obesity]” (Burgess Watson & Moore, 2011, p. 164).

As well as being a source of food, community gardening provides opportunities for physical exercise for people of all ages. Participants report getting exercise through activities such as digging and composting, and bending (Hale et al., 2011). Some people walk or bike to the gardens, which is

added exercise (Hale et al., 2011; Kingsley et al., 2009). Gardening is a popular form of leisure amongst people aged 65 and over (Park, Shoemaker, & Haub, 2009). In a study comparing older gardeners and non-gardeners, Park et al. (2009) noted the importance of regular physical activity for preventing and reducing chronic diseases associated with aging, including heart disease, osteoporosis, anxiety and depression. The study suggested that gardening contributed to overall physical health. An added advantage of community gardening is that it does not exclude older people, as many of the tasks are shared, and they can still participate to the level that they are able. For example, they can do some gardening tasks, even if they cannot engage in heavy lifting.

## **2.3 Cognitive and emotional aspects of community gardening**

The cognitive and emotional consequences of participation in community gardening that have been noted in the literature, cover a wide range from the practical aspects of learning basic gardening skills through to the more intangible, such as experiencing a sense of self-worth (Kingsley et al., 2009). More specifically, Kingsley et al. (2009) conducted a study with members of a community garden in Port Melbourne, Australia, and investigated their perceptions of the health and well-being benefits of participation. Findings identified positive aspects including: “a setting for learning”; “opportunities and a sense of achievement”; “a place of spirituality”; “a sanctuary from pressures of the world”; “social connectedness and place attachment”; and “a supportive environment” (Kingsley et al., 2009, pp. 211-214). Community gardens are also usually considered as secure spaces, where the physical safety of the gardeners is unlikely to be threatened (Waliczek et.al., 1996; Glover, 2003b, as cited in Parry, Glover, & Shinew, 2005).

Participants in community gardening can learn new skills, such as pruning and compost making. There are also many examples of Kiwi ingenuity, or ‘No 8 wire mentality’<sup>1</sup>, seen in the way recycled materials are used to create useful and practical and often cost-saving aids for the garden. As an example, the Point Chevalier community garden in Auckland has created a bicycle-powered irrigation system, using rainwater collected in donated tanks, and pedal power, thus avoiding high watering costs, as it is off the grid (Rogers, 2011, p. 31).

Self-provisioning can result in cost savings and feelings of self-reliance (Jamison, 1985; Linn, 1999; Schmelzkopf, 1996 all cited in Glover, 2003), and the experience of pride and accomplishment in one’s achievements (Langhout, Mitchell, Beckett, Cockrell & Chenail, 1999; Myers 1999, all cited in Glover, 2003). Self-worth and empowerment also arise from participating in the shared activities of

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<sup>1</sup> No 8 wire (commonly used for fencing wire) is a cultural symbol of the inventiveness of New Zealanders and the “nation’s alleged ability to improvise, and make do with available resources” (Wolfe & Barnett, 2001, p. 26).

gardening and other related practical tasks such as making signs and building bean frames. This all contributes to positive emotional well-being, and helps to give meaning and purpose to life. A sense of pride is also associated with being able to create something beautiful that everyone can share. By contrast, a private garden may not be the focus of public regard (Hale et al., 2011).

Communal leisure groups provide a vehicle whereby like-minded people can exchange ideas, skills and training and information (Bishop & Hoggett, 1986). At many community gardens, workshops about specific aspects of gardening, such as compost making, berry fruit growing, tree pruning, etc. are offered to the wider community. Kindergartens may have their own plot at their local community garden, and schools come to the garden to learn about gardening, and science (Cleghorn, 2011), such as composting ingredients and processes.

Community gardens are a place for learning about the natural processes that growing food depends on, within an urban environment (Hale et al., 2011). The authors studied “the therapeutic landscape aesthetic experiences of community gardeners” as an attempt to understand “how a community garden may facilitate ecological learning, the affirmation and expression of individual and cultural aesthetic values, and the impacts these processes have on health” (p. 1855). They found that participants can experience the benefits of understanding the processes and cyclical rhythms of nature and the seasonal changes, and can achieve “a more embodied understanding of the natural processes that food production is dependent on” (p.1858). Examples of this embodied understanding are the aesthetic experiences of preparing compost and nurturing plants within the seasonal garden cycles (Hale et al., 2011). The natural environment of the community garden is important, and Nisbet, Zelenski and Murphy, 2011(as cited in Howell et al. 2011), suggested that “nature connectedness was consistently associated with autonomy, personal growth, and purpose in life” (p. 166).

Learning is a life-long process, and can be reciprocal as participants can learn from others and teach others what they know. Hale et al. (2011) viewed this social learning as a “socio-ecologically embedded sense of connection to the process of growing food” (p.1858). Participants also learn social skills such as co-operation and consensus and how to work in a group. Both practical and social skills can be transferred to other areas of life, and can benefit both individuals and their communities (Cleghorn, 2011). Also, for the ability to grow food, to be transferable from one generation to the next, and for community gardens to be able to provide food security in times of crises, the fundamental foundation is that people have to have the skills to know how to garden (Barthel, Parker, Folke, & Colding, 2014).



## **2.4 Contemplative aspects of community gardening**

Community gardens have been described as “spiritual and healing places that help gardeners to process emotions, provide a sense of purpose, and foster stability through the regular cycles of the garden” (Hale et al., 2011, p. 1860). In post-earthquake Christchurch, it is possible that people may have felt a particular need for places that support personal resilience and encourage mental and spiritual well-being. In a report entitled *Supporting Community Resilience in Post-Quake Christchurch*, the spiritual aspect of recovery often featured in discussions, and there was an acknowledgement of the connection between spiritual needs and mental health. “People identified a need for healing places to go such as community gardens or places of tranquillity” (Torstonson & Whitaker, 2011, p. 10).

Hale et al. (2011) talked of how contemporary spirituality can involve feelings of ‘connectedness’ and of peace which can be experienced through contact with nature. The sensory aspects of gardens allow people to experience nature through their five senses: sight (colours and shapes), smell (perfumes, compost), sound (birdsong, insects, water, and wind in the trees), taste (produce) and touch (hands in the soil, prickles, and textures). The authors claim this tactile experience with the garden and nature can be beneficial for emotional and mental health, because working with the soil and plants can relieve stress and manage powerful emotions.

## **2.5 Social aspects of community gardening**

Why do people garden in community gardens when it is possible to achieve a garden at home, and many do have gardens at home? As discussed in the cognitive/emotional section, there are numerous benefits to be gained from the collective nature of community gardening.

To create a successful community garden, co-operation and sharing of resources – for example space, tools, and water - is paramount (Glover, Shinew, & Parry, 2005). People can be creative collectively, rather than individually, and a wider range of produce can be grown and enjoyed than would be possible gardening alone. For example, a dozen cabbages may go a long way for someone living alone, but in a community garden a person can take home one cabbage and a variety of vegetables.

Sociability often influences participation in community gardens (Glover, Shinew, et al., 2005), and is defined as “satisfaction members receive from being in the company of and interacting with other members and clients of the association and from friendships and acquaintanceships that develop along the way” (Stebbins, 2002, p.35 as cited in Glover, Shinew, et al., 2005, p. 79).

In communal leisure groups people engage in collectivity, self-organisation, mutual aid, and production for self-consumption (Bishop & Hoggett, 1986), (although some community gardens do make their produce available to anyone in the wider community, through donations or selling at local farmer's markets). The mutual aid form of organisation is where the members perceive the organising as being done by "some of us for all of us" in comparison to service groups where the organisation is "by them, for us" (Bishop & Hoggett, 1986, p. 41). The basis of mutual aid is reciprocity, and relationships are very much loosely defined as 'give and take' (Bishop & Hoggett, 1986, p. 41).

In a case study examining the nature and construction of 'community' in community gardens, Firth, Maye, and Pearson (2011) concluded that there are four main ways that community gardens generate social capital. "Social capital refers to connections among individuals – social networks and the norms of reciprocity and trustworthiness that arise from them" (Putnam, 2000, p. 19). Social capital has both individual (private) and collective (public) faces.

First, community gardens bring people together for the common purpose of participating in a joint activity. Through this participating they experience collective ownership and pride in their endeavours and results. This is a voluntary activity, and the benefits are reciprocal, as the participants are motivated to create something which is of benefit to others, and in return they learn new skills and increase their social networks (Firth et al., 2011).

Second, a community garden creates a meeting place, where people can "interact and contribute to the creation of community" (Firth et al., 2011, p. 565). There are opportunities for gathering, networking and identifying collectively as members of a community (Moncrief & Langsenkamp, 1976; Schrieber, 1998; Linn, 1999; Shinew et al., 2004, all cited in Parry et al. 2005). There are also opportunities for working towards a common community goal (Jamison, 1985, as cited in Parry et al., 2005). Connections such as networking benefit the individual, and a well-connected community can benefit everyone.

A third way concerns the types of activities that are engaged in. Growing, cooking and eating food are social activities within the community garden environment. They are also inclusive activities, available to all ages, genders, ethnic groups and social backgrounds, so these activities lend themselves to outreach to the whole community. Food "has a unifying role in these community contexts" (McGlone et al. 1999, as cited in Firth et al., 2011) and many social activities in the community gardens revolve around sharing the produce that has been grown there, again connecting people together.

The fact that the produce in a community garden is both produced and consumed together is quite significant, as a common activity of human sociality is commensality, or eating in groups, turning eating which is a primary biological function, into a collective social experience (Fischler, 2011). Commensality can be traced back to hunter-gatherer societies, where food was scarce and sharing food was a deeply bonding process and was surrounded by cultural protocols and rituals (Fischler, 2011). Today, pot luck meals and barbeques are a common way of bringing people together, as are family dinners, festivals such as Christmas, Easter and Thanksgiving (in the USA and Canada). Supper time, is the time when people can relax and chat after the formal proceedings of committee meetings. In sharing meals, participants are as engaged with one another as with the food, and cooking and eating together can form bonds between people (Dunlap, 2012; Honore, 2004), so in this way food can be a catalyst for creating community.

A fourth way is through building links with institutions and authorities, such as local councils (Firth et al., 2011). If local institutions are aware of the benefits of the community garden to the community, they may assist with resources and may be a valuable asset in promoting and ensuring the continued growth and even the survival of the garden.

Community gardening involves the sharing of resources, land, water, gardening tools and equipment. Therefore co-operation is necessary, and with it the ability to relate to other gardeners (Trotman & Spinola, 1994). An important point made by Parry et al. (2005), is that although community gardens strive for inclusiveness and working towards common goals, sometimes the reverse can happen, precisely because of the nature of relationships in a collective and collaborative situation. Frustrations such as dealing with vandalism and theft of vegetables and plants are not uncommon (Hirsch, 2013), and there can be differences of opinion about how aspects of gardening are to be carried out within the philosophy of each garden. Disagreements are not necessarily negative aspects, but are a part of community life that help cement together a group's membership over the long term. There will inevitably be challenges when a group of people get together. It can be an opportunity for community gardeners to learn the dynamics of co-operation, consensus, and understanding others.

For example, a graphic illustration of these potential dynamics can be found in a British film called 'Grow Your Own' (Laxton, 2007) about an established allotment where some traumatised refugees from various countries, are given garden plots in an attempt to integrate them into life in Britain. The dynamics in the allotment reflect a microcosm of the larger society. They show a clash of worlds, the parochial world of allotments and the petty bureaucracy of the committee, the background of the refugees, and also the corporate world, which threatens to take over the garden. Members are

forced to re-evaluate how and why they do things, and people's lives are gradually put back together in the process of growing vegetables.

## 2.6 Value to the Community

The social aspects discussed in the previous section, are largely the result of interactions between individuals. The community value differs in that it refers to the overall benefits for the wider community from having a community garden in their locality.

There appear to be many ways that community gardens can benefit the communities they are part of. There can, for example, be 'flow-on' benefits to others in the community who may not be directly involved in community gardens. This can be seen in some of the responses to the Canterbury earthquakes of 2010/2011. In areas such as Lyttelton (Project Lyttelton Inc., 2011) and Addington (Addington Action Inc., 2011) where there was already an interlinked network of community activities (including community gardens), the links and resources were in place to mobilise and assist others in the local community in a time of crisis.

Christchurch, pre-earthquake, was known as the Garden City but because many residents have had to evacuate their houses because of earthquake damage they lost access to their private gardens. As previously mentioned, community gardens have developed in response to crises such as war and the Great Depression (Okvat & Zautra, 2011) and, potentially, community gardens provide benefits in post-earthquake Christchurch. People, for example, may need food supplies and - at the level of the city - renewal of landscapes, and rebuilding of displaced communities. There is, for example, a proposal to create community gardens along the banks of the Avon in the so-called 'red zone'<sup>2</sup> for food supplies for the disadvantaged and as a learning space for schools (Gates, 2012). Growing one's own food can save gardeners from purchasing fruit and vegetables from commercial sources, and result in cost savings. Community gardeners have very few overheads as they obtain a lot of their resources, including seeds and plants, through council or local body grants, donations, or the recycled/second-hand market.

Many studies have "established beyond reasonable doubt that social connectedness is one of the most powerful determinants of our well-being" (Putnam, 2000, p. 326). This applies to both physical and psychological well-being. Research also suggests (Putnam, 2000) that people who have close ties with family, friends and community tend to live longer compared to those who are socially disconnected. Putnam (2000) claims that in contemporary society, formalised, activity-specific, often

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<sup>2</sup> The **central city** red zone was a public exclusion area put in place after the February 22, 2011 Christchurch earthquake. It gradually reduced in size and the cordon was finally removed mid-2013. The **residential** red zone refers to areas deemed uneconomic to rebuild on because of liquefaction, or other major ground disturbance, or unsafe because of rock falls in the hill suburbs. ([http://en.wikipedia.org/wiki/Central\\_City\\_Red\\_Zone](http://en.wikipedia.org/wiki/Central_City_Red_Zone)).

bureaucratised relationships, have replaced informal neighbourly relationships, thus decreasing trust. He argues that involvement in voluntary organisations helps to generate social capital and create strong communities built on relationships of trust, networks, and systems of reciprocity.

Putnam claims that communities of trust can develop from communities of common interest (Putnam, 2000). In that vein, and despite surface appearances, it has been claimed that “community gardens are often more about community than they are about gardening” (Glover, 2003, p. 193). While “a community garden is embedded in its own unique narrative” (Glover, 2003, p. 193), it has the potential for community building, to improve a neighbourhood’s appearance and to become a catalyst for neighbourhood change. Also, alternatives to consumerism can be seen in the resurgence of more traditional activities and urban agricultural systems that are sustainable and ‘slow’, including farmers’ markets and community markets, and community gardens (Bubinas, 2011).

Community gardens attract people of all ages but, as mentioned above, older people can potentially discover in them a source of physical exercise, and social contact. There will be on-going challenges to meet the needs of older people as, globally, demographics are changing and the proportion of people aged 65 and over will continue to increase. The 2013 New Zealand Census records 14.3 percent of the population as being aged 65 and over, which was an increase from 12.3 percent of the population in 2006 and 12.1 percent in 2001 (Statistics New Zealand, 2013). Activities encouraging healthy behaviours may also be of benefit to an already financially stretched health system (Carville, 2014).

It has also been argued that, at the social level, community gardens represent visible opportunities for new migrants to become better integrated into communities (Agustina & Beilin, 2012). That is, community gardening can provide space for migrants to meet and socialise with others, while at the same time allowing space for them to preserve their cultural identity, through the sharing of skills and knowledge (Agustina & Beilin, 2012). This may be of particular importance to Christchurch, which is attracting high numbers of migrants (and their families), to assist with the post-earthquake rebuild, and it will be very important to provide ways for migrants to feel welcomed. Engaging in a common leisure activity, such as community gardening can be beneficial for inter-racial interaction (Shinew, Glover, & Parry, 2004). Agustina and Beilin (2012) have linked the community gardening activities of migrants with the creation of their own ‘sense of place.’ This process of creation is responding to detachment from immigrants’ home countries, as well as a continuing process of adaptation to their new surroundings.

Community gardens have also been seen as a potential model for sustainability. Holland (2004) argued that sustainability is discussed on many levels but what is needed is a “model for the implementation of sustainable development which can be examined, critiqued, and replicated

(possibly)” (p.286). He suggested that “the community garden movement could act as a model for the implementation of social, economic and environmental policies at the local level” (p.285), thereby helping to raise awareness of sustainability issues.

Kingsley et al. (2009) note some limitations to participating in community gardening, one of which is the time consuming nature of active involvement. People mainly affected by these time constraints were those with young children and those who lived some distance from the garden. Another constraint was the lack of toilet facilities which limited the time people could spend there. Hale et al. (2011) make the point that a quality that may be positive for one individual may be negative for another. As an example, the time involved in production and keeping the garden tidy (possibly due to the standards required for the particular garden’s culture) may be a motivating factor for some but a barrier for others.

## **2.7 Summary**

From an initial reading of the literature it seemed that participation in community gardens could contribute in some way to the well-being of individuals and communities. I began my literature review with a brief look at the history of gardening in New Zealand. This highlighted that gardening in New Zealand has been a form of leisure over a long period of time, along with the ambiguity of defining gardens as sometimes public, sometimes private. Of particular significance was the importance for the colonial settlers of creating a garden to establish a sense of place and to re-establish themselves in an unfamiliar landscape.

I then looked at the concept of community gardening and identified some meanings for participation that had been written about. These included physical aspects, such as growing food and exercise; cognitive/emotional aspects such as education, including basic gardening skills through to a sense of achievement or empowerment, provision of workshops on specific gardening topics, and sharing ideas; spiritual aspects, such as the gardens as places of tranquillity and healing places; social aspects, including friendships, co-operation and support. Finally, I discussed literature on the value of community gardening to the local community, and potential benefits for post- earthquake Christchurch, such as generation of social capital, community building, food provision, renewed landscapes, integration of migrants, and a model for sustainability. These meanings all indicated a sense of individual and community well-being as a consequence of participation in community gardens, so I wanted to explore this more deeply, and in particular the significance of this for post- earthquake Christchurch.

This literature review has covered ideas that I had considered before I did my fieldwork. A further literature review incorporating and elaborating upon the emphases that arose from my analysis of the findings of this study can be found in Chapter 5.

The next chapter will discuss the methods used in my research, and my research setting.

## Chapter 3

### Methods

#### 3.1 Introduction

This chapter will discuss my methodological approach, and my research method, which was primarily photo-elicitation and qualitative interview. I will describe the photo-elicitation process and why I think it is a useful method for my research. I will then discuss my method of selecting and recruiting participants, and give an overview of the research setting, by briefly introducing the five gardens I studied. The research process, data collection and analysis, and ethical considerations form the remainder of this chapter.

Although much has been written about community gardens, my particular interest was to research community gardens in the Christchurch area, focusing on meanings other than the most obvious aspect of growing food sustainably. Also of particular significance, is that my research was conducted within the context of the aftermath of the Christchurch earthquakes of 2010-2011. Another point of difference was that I employed the lesser known technique of photo-elicitation followed up by qualitative interview, to try and discover the deeper meanings that motivated people to garden in groups.

#### 3.2 Methodological Approach

The general approach to analysis adopted for this research was thematic analysis, “a systematic approach to the analysis of qualitative data that involves identifying themes or patterns of cultural meaning” (Lapadat, 2010, p. 3). This is an inductive approach, where

*“themes emerge from and are grounded in the data. Through a process of noticing patterns, attending to how participants label events, defining emergent themes, constantly comparing data against codes and categories, cycling back through documents to revise coding, recording interpretive insights in research memos, and developing data displays that reveal overarching patterns, the researcher builds a complex exploratory, descriptive, or explanatory case analysis grounded in the particulars of the case or multiple cases. Inductive thematic analysis avoids the rigidity and premature closure that are risks of a deductive approach”* (Lapadat, 2010, p. 3).

My aim was to understand from the perspective of the participants, how gardeners in the context of community gardens make sense of their experience. This interpretive approach required keeping an



open mind and allowing any new insights that emerged during data collection and analysis to guide further questions. For example, my questions relating to the natural environment emerged from my growing awareness that this was an important aspect, and therefore worth pursuing.

My primary research methods were a combination of photo-elicitation and qualitative interviewing. I chose a qualitative approach because of the flexibility of the method. One philosophical view underpinning qualitative research is “the assumption of multiple, socially constructed realities” and that human social behaviour can only be understood in terms of the meanings which the participants or ‘actors’ attribute to them (Tolich & Davidson, 2011, p. 33). This differs from a quantitative approach, which deals with statistical measures and quantities rather than qualities that can be used in interpreting and explaining behaviour (Tolich & Davidson, 2011).

As an example, if someone says that they participate in community gardens to meet other gardeners, it would be possible to ask ‘how many people did that?’ This is the type of closed question which would lend itself to using quantitative methods. By contrast, I wanted to know what the participants gained from that experience or, to phrase it differently, what is it about meeting other gardeners that is important to them. Is it purely social, is it an ability to talk to like-minded people, is it to learn and share gardening knowledge, or is it something else? Qualitative research uses open-ended questions to allow participants to share their thoughts and views as much as possible (Marx, 2008).

I also chose a qualitative approach because I was interested in investigating the deeper meanings and experience of community gardeners, and I wanted to elicit ‘rich’ data. Rich data, is a term describing the notion that

*qualitative data and their subsequent representation in text should reveal the complexities and the richness of what is being studied. Although it is never possible to comprehend all dimensions of a phenomenon, the qualitative researcher seeks to understand what is being investigated as deeply as possible and to situate it within the context of time and space rather than in isolation (Marx, 2008, p. 795).*

Marx’s comment above about situating it “within the context of time and space” is important, as my research was done at a time when people were still feeling the effects of the Christchurch earthquakes, and therefore was situated within this context.

### **3.3 Methods- Photo-elicitation and Qualitative Interviews**

Photo-elicitation is a method which uses images as the basis for an interview, by asking the informant to comment on them. The aim of photo-elicitation is to study the informant's response to the images and how they attribute social and personal meanings and values to them (Ruby, 1995 as cited in Bignante, 2010). The images can be produced either by the informant or the researcher (Taylor & Bogdan, 1998). For my research, I asked the informants to take their own choice of photographs.

I chose the photo-elicitation method because I felt it would help to explore depth of meaning. It gave me the flexibility to frame my questions around what each person was telling me about their photos, plus any additional questions that seemed relevant. This approach is also more participant led, as it allows the participants to choose what will be photographed. When taking a photograph, the participants decide what to include, but also what to exclude, and this focuses on what is important for them (Beilin, 2005).

Behind every photograph there is a story. Smith, Gidlow, and Steel (2012), make an important point that the research interest is in the meaning and significance that the participant attributes to the image, not in the image itself. The participant is "both constructor and narrator" and as such is "not bound to what is visible in the photograph" (Beilin, 2005, p. 60). The discussion about the photograph "extended the possibility of what was really 'in' the photograph" (Harper, 1986, as cited in Beilin, 2005, p. 61).



Figure 3.1 A display of fruit and vegetables.

For instance, this photograph of a display of fruit and vegetables may represent many different meanings to the photographer. It was actually to show that for this participant, growing fruit and vegetables was the reason he participated in the community garden, but this was unknown until he explained it. It could also have had other meanings, such as a sense of pride in growing such a bountiful crop (in this case the meaning is also about skills, learning, and achievement); it could be that the mixture of colours make a visual display (an aesthetic, sensory meaning); or it may remind the photographer of the fun that was had with a group of people on the day the vegetables were harvested (social meaning). As Bignante (2010) says, it is a useful method for exploring values and emotions, as the information elicited can generate deeper insights that may not be obtained from a traditional interview. Images have “many potential meanings and interpretations”, depending on each individual’s observation and experience of the world, “mediated by social and cultural institutions” (Barthes, 1981; Banks, 2001, as cited in Bignante, 2010, pp. 2-3).

As I was asking people about meanings, it made sense to ask them to take photographs of aspects of the garden that were meaningful to them, rather than just interviewing them. To elicit a deep meaning often requires some reflection, and taking the time to think about why they were choosing

to take a particular image allowed for a more thoughtful response. The images provide prompts that can stimulate and sharpen the informant's memory. Questions such as 'why did you take that particular photo?' may connect an individual to earlier experiences and memories, as well as current experiences.

Photo-elicitation can alleviate misunderstandings, particularly with informants of different ethnicities and languages (Collier, 1957, as cited in Harper, 2002). Often language is a barrier when talking, and a photo can help the respondent explain what they want to say. Collier also discovered that "(s) tatements in the photo-interviews were in direct response to the graphic probes ... whereas the character of the control interviews seemed to be governed by the mood of the informants" (Collier, 1957, as cited in Harper, 2002, p. 856).

Photo-elicitation is not as commonly used as traditional interviewing, which Van Auken, Frisvoll, and Stewart (2010) find surprising, as contemporary society is one in which people understand their world more and more through images, and "consumption of imagery, 'gaze' and metaphors are central to individuals' construction and comprehension of themselves" (Urry, 1990, as cited in Van Auken et al., 2010, p. 373). Van Auken et al.'s (2010) experience is that the method helps to bridge gaps between interviewer and respondent, and "also places the informant at the pivot of the interview in such an explicit way that his/her status is seen as vital for the research" (p.384). Some respondents find the process more interesting than a traditional interview or a survey (Van Auken et al., 2010). The respondent also has more control over the process, reducing the power difference between interviewer and respondent (Van Auken et al., 2010). The photo-elicitation process obviously uses more of the participants' time, as they have to commit to taking the photos as well as to an interview, and a potential disadvantage is that it may be necessary to approach a number of potential respondents in the expectation that some would decline.

### **3.4 Recruitment/Selection of participants**

The recruitment and selection of participants, and the data collection for this research, took place between November 2012 and April 2013. As I was studying part-time, I was fortunate to have the flexibility to be able to interview people mainly over the summer period, which was an ideal time of year for the garden produce, and when people were very involved in this most productive time in the gardens.

Currently, in 2014, there are twenty-six community gardens listed on the Canterbury Community Gardens Association website (Canterbury Community Gardens Association, 2014). At least two of these were not in existence at the time I did my fieldwork.

As the literature suggests, there are many aspects to community gardens, and in selecting which gardens to study, I looked at points of difference as well as commonalities, as community gardens have been developed in response to different needs (Trotman & Spinola, 1994). Given the known diversity of gardens, I sought to get a good geographical and socio-economic spread including an awareness of differences based on the effects of the earthquakes.

I initially chose Okeover, located north-west of the city centre, and within a tertiary student environment, as I had visited it on another occasion. Lincoln, in Selwyn district approx. 20 km south-west of the city, was chosen as it was close to my home and I had a contact there. Packe Street, north of and the closest to the city centre and Opawa, to the south-east, were suggested to me by my supervisors as other possibilities. These three gardens were in a variety of socio-economic areas<sup>3</sup>. New Brighton, in the eastern suburbs was chosen later, as it seemed important for the direction that my research was progressing, to look at a garden in a suburb severely affected by the earthquakes. The map below shows the locations of the community gardens that I studied.

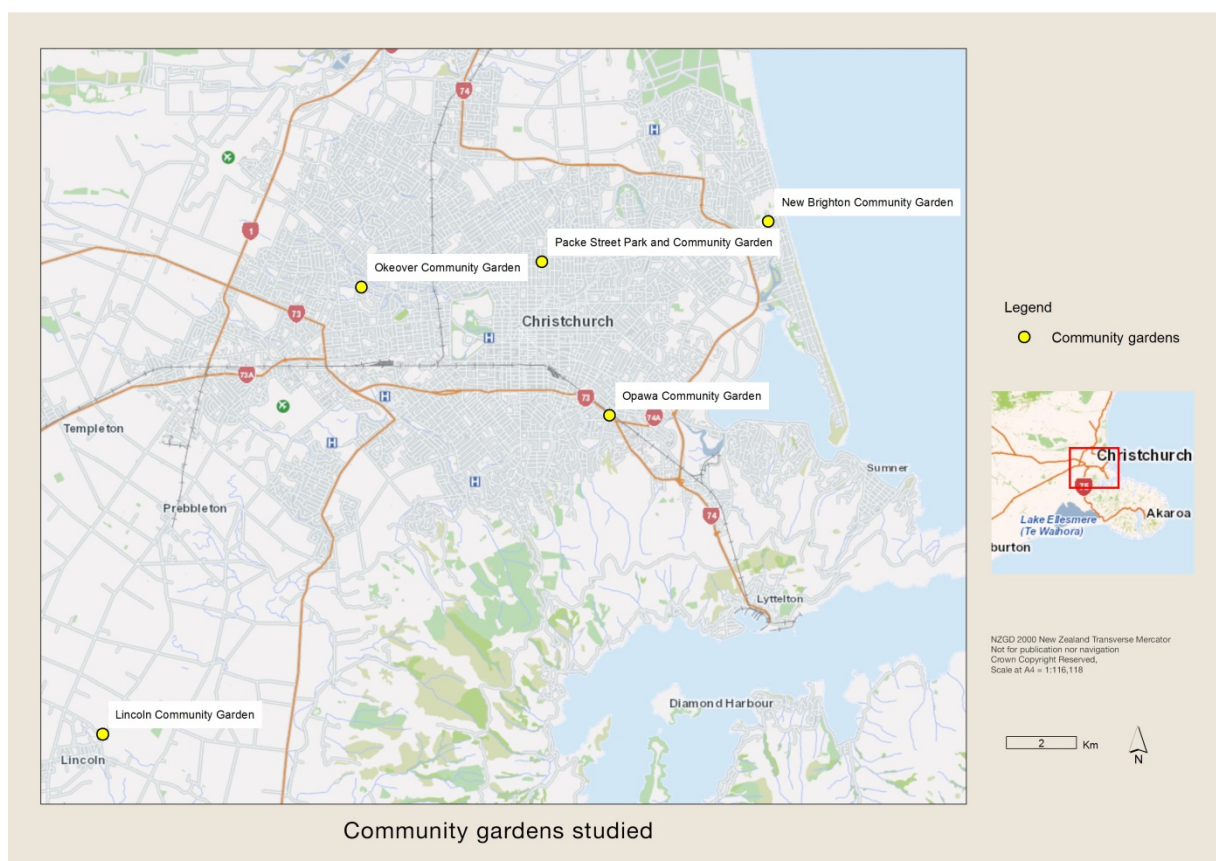


Figure 3.2 Location of community gardens studied.

<sup>3</sup> I have used the decile rating of the nearest primary school to each community garden as an indicator of the socio-economic status of the area. The **socioeconomic decile** indicates the socioeconomic status of the school's catchment area. A decile of 1 indicates the school draws from a poor area; a decile of 10 indicates the school draws from a well-off area. ([http://en.wikipedia.org/wiki/List\\_of\\_schools\\_in\\_the\\_Canterbury\\_Region](http://en.wikipedia.org/wiki/List_of_schools_in_the_Canterbury_Region)).

The five gardens I visited have some similarities but also many differences, which is in line with the description given by Trotman and Spinola (1994), that “the types of community gardens and the reasons they get started are as varied as the community members involved” (p.10). The method and philosophy of gardening also varies depending on the aims of the group, requiring consultation and consensus amongst the members (Trotman & Spinola, 1994).

My initial approach was to locate the email addresses for each of these gardens from their websites. As a formality, and as a way of introducing myself and my research, I emailed the people listed as the contacts, to ask their permission to undertake the research. In my email I included a description of my research project (appendix 2). I also included a general information sheet (appendix 1) that could be placed on noticeboards at the garden to inform any visitors who may be there when I was observing, about what I was doing. Each garden had at least one half day per week when they had an organised working bee, so I asked if I could arrange to meet each organiser at the garden during one of these advertised working bees.

Once I had arranged a time to visit, I arrived at the garden and met the designated co-ordinator. I was warmly welcomed at each garden that I visited. The process for meeting the volunteers was similar at each garden. At two gardens, my arrival time was set to coincide with the afternoon tea break. These particular co-ordinators had informed all the ‘regular’ gardeners about my research, and that I would be asking for volunteers, so some of them were aware of what I was doing. I was introduced and then given time to explain my research, and ask for volunteers. On subsequent visits, I would circulate amongst the gardeners and approach others who were not there on my initial visit, explain my research and ask if they were interested in taking part. At another garden, I arrived at the beginning of the ‘working bee’, and in this instance the co-ordinator walked around the garden with me, introducing me to the volunteers.

### **3.4.1 Observations.**

I conducted two observations at each garden, of one hour each, during the summer period of 2012-13. I did these observations on the day of each garden’s weekly working bee, as this was the time when most people were there. I took notes on the ‘daily life of the garden’, which varied slightly each week depending on the required tasks, although the afternoon tea/lunch break appeared to be an established ritual. I chatted with some people during the observations who did not want to take part in the photo-elicitation/interview. If they made a comment that I felt may be of interest to my research, I asked if they were happy for me to note it, and did so if they gave verbal consent. If they declined, I respected that.



At Packe Street, there were twelve gardeners on the first occasion, and eleven on the second, and a total of five visitors came to the garden during both observations. At Okeover there were six gardeners on each occasion, and no visitors. At Opawa, I observed eight gardeners on one visit (including one child, who was a regular gardener), and six on the second, with a total of five visitors. I was informed that Opawa garden had approximately eight regulars. At Lincoln, only the co-ordinator was there on the two official working bee days that I visited. I ascertained that there were three regular gardeners. Lincoln was different to the other gardens I visited in that it has individually 'owned' plots, irregularly used, and a very small community space.

I did not do formal observations at New Brighton (as I followed a different method for this garden), but they have a paid organiser there on several days of the week, and the number of gardeners varies "sometimes we could have five in the garden, and sometimes we have 20 or more" (Jacky).

### **3.4.2 Key criteria for inclusion of participants.**

My intention was to seek a mixture of ages (over the age of 16), genders, and ethnic groups, because I was using an open-ended approach and was seeking to 'hear' a range of voices. I also wanted to interview a leader at each garden. However, there were only a small number of people to select from at each garden, so I interviewed anyone (over the age of 16) who was willing to participate. I was also given names of people to contact who were involved with the gardens but not present at the times I visited, and I followed up on these suggestions.

### **3.5 Research Setting - a brief description of each community garden studied.**

The first garden I studied was **Packe Street Park and Community Garden**. This garden is located in an area between decile three and decile seven schools. A few of the gardeners travelled from other suburbs, or were temporarily living in the area as they had relocated there due to earthquake repairs. One of the gardeners said "it's as much a community of interest as it is a physical community".

The garden was created 16 years ago, and because it is situated in a public park, it is very well connected to the local community. The Park/Garden has always had a liaison person from the local community board. The garden co-ordinator occasionally applied for a grant from the community board or obtained occasional grants from the Christchurch City Council or 'Creative Communities'<sup>4</sup>.

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<sup>4</sup> The Creative Communities Scheme supports and encourages local communities to create and present diverse opportunities for accessing and participating in projects which must have an arts or cultural focus, take place within Christchurch and or benefit the city, and benefit local communities. (<http://www.ccc.govt.nz/CITYLEISURE/communityfunding/creativecommunities/index.aspx>).

Plants and seeds were often donated or exchanged from other community gardens or interested groups and individuals. Archival records were kept of the garden's history. There are more flowers and fruit trees than vegetables in this garden. Due to the interest of one of their key members, there are also many rare and unusual plants.

The park hosts the annual community Christmas carol service and the park has also become a focus for other community events since the Christchurch earthquakes, because of lack of suitable venues. It also has a focus on being a 'children's place' and the gardeners all respect the children's space, a den under an old tree at the rear of the park. It is also a 'memory garden' featuring raised brick beds and strawberry towers recently constructed from local brick chimneys destroyed in the earthquakes. There is a memorial stone from the local Coptic Church which had been a central part of the community, and which was also destroyed in the earthquakes. There are plants to remember past gardeners who have died, and to celebrate births.

The afternoon tea during the weekly working bee is an established ritual, held at 3pm at a wooden picnic bench beside the large tree where the children's den is located. As there is no power on the site, everything is brought in, food and hot water in flasks for the cups of tea.

**Okeover Community Garden** was established in 2002, and is located on the campus of the University of Canterbury, near a decile seven school. Some of the gardeners I interviewed from here were also involved with Dovedale Community garden, which was established in 2010, and is located on the College of Education section of the campus. My focus was on Okeover, as the more established of the two gardens, but some of the comments of the participants include Dovedale. Involvement in the community gardens is open to anyone, not only students and staff. Funding comes from the Sustainability Department on campus, and a paid co-ordinator is responsible for overseeing both gardens. Produce is available for the gardeners to divide up and take at the end of the working bee.

Okeover garden runs workshops, and other invited sustainability-related groups use the space for gatherings or meetings. It has a well-established large shed, complete with kitchen sink, tea making facilities, cutlery, crockery, music system, seats, glasshouse, garden equipment, and even some mosaic supplies for creating the many mosaics that adorn the garden. It also has a glasshouse and a fully functioning composting system consisting of several bins.

An interesting feature is the pizza oven, which was created by a gardener who was also responsible for the mosaics that give the garden character. Pizza gatherings are an integral part of the social activity related to the garden.





Figure 3.3 Pizza oven

The **Opawa Community Garden** is near a decile five school, on council owned land. It was originally a church initiated project and the church building is opposite the garden, but has been deemed unsafe since the earthquakes, so the congregation meets elsewhere. There is still a church-run opportunity shop opposite, to which excess garden produce is donated for sale.

The garden has a strong focus on recycling/‘Do-It-Yourself’. Community members donate unwanted equipment, sheds etc., and garage sales are regularly visited for useful items such as swing frames and bedheads that can be turned into bean frames, and other garden necessities.

This was the only garden I visited that had live chickens. These were a recent acquisition and they had precipitated a learning process of discussion and consensus about whether or not to acquire them. They have also changed the dynamics in the garden in terms of the ongoing need to provide care of them, and a roster has been created for feeding and egg collecting. They roam freely around the garden on working-bee days, and their presence creates interest and amusement.

There is a children’s play area, the local kindergarten has a plot, and one of the members is a nine year old child who is really enthusiastic about gardening. Anyone from the community can take produce if they leave a donation; they do not have to be involved with the garden work.

The **Lincoln Community Garden** is located in a rapidly growing peri-urban town, in contrast to the other areas within which selected community gardens were studied. This area is experiencing a rapid

increase in population, as Christchurch is spreading west of the central city since the earthquakes. The local primary school is rated decile 10.

Lincoln is a town within a rural environment, so consequently the surroundings are closer to nature than in a built up urban environment. The town is a mixture of new subdivisions and established older houses, and a small residential tertiary student population. The community garden is not a social place compared to the other gardens I visited, nor were there many gardeners. The garden consists of individual plots and the plot holders visit the garden on an intermittent basis. The plot holders are vetted by the organiser before taking over a plot, and they use their plot to grow their own produce. The plots have been donated by local businesses and display a plaque indicating the name of the donor. There is also a very small shared communal plot, and the local kindergarten has a plot. The co-ordinator (paid for 10 hours a week by Envirotown<sup>5</sup>) plus a couple of other volunteers seem to have the majority of the involvement. Produce is sold at the local farmer's market on Saturdays, and the garden activities are advertised monthly in the Envirotown newsletter. Produce is not generally available for non-garden members to take for a donation, as at some of the other gardens. The focus of the garden is educational, and several workshops a year are run, with topics usually tailored to expressed interest. These are advertised widely and participants come from a wider area than Lincoln itself, often from Christchurch City and beyond. This appears to be the only time there is a large attendance at the garden. At a recent workshop on fruit tree pruning, 35 people attended.

The garden is located behind the local maternity hospital, on ground belonging to the hospital board. Patients and their visitors enjoy the garden, and can sit and relax on the few seats provided under a shade sail.

The **New Brighton Community Garden**, is located between a decile four and a decile five school, in east Christchurch, an area severely affected by the earthquakes. Many people have lost their homes, and the area is generally run down. Although the surrounding area is badly affected physically, the garden is not, and for many reasons that will be discussed later, the co-ordinator thinks it is "the best community asset in Brighton at the moment".

This well- established garden began in 2005, and because it is on the site of an old bowling club, the clubhouse is still there, with full facilities, kitchen, lounge, toilets and office space for the two paid workers. The garden also has a composting toilet, built by garden volunteers. The garden runs

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<sup>5</sup> Lincoln Envirotown Trust is a charitable trust dedicated to fostering a community-owned process for sustainability in Lincoln ([lincolnenvirotown.org.nz](http://lincolnenvirotown.org.nz)).

workshops, issues an excellent, visually attractive monthly newsletter which, as well as containing news of the many up-coming workshops, contains snippets of personal gardening stories from the volunteers. Children are welcome and encouraged and there is a play area containing a sandpit in the form of a ship, and children's gardening tools are available. The garden itself is attractively laid-out, with a large mural on the outside wall, and plant indicator signs made with mosaics.

### **3.6 Data Collection**

Participants for the photo-elicitation/interview were selected by convenience sampling. Most people that I approached were agreeable to taking part in the 'formal' research process, but at least three in each garden declined. For some, this was due to the perceived time involved in taking the photos and taking part in an interview. In this case they were generally happy to talk to me during the observations, and for me to note any comments that I found useful. Others did not want any involvement and I respected that, by not observing them.

#### **3.6.1 Participant selection and interviewing**

##### **Selection**

I asked each 'designated' co-ordinator of the gardens if they would be willing to take part in the research (purposive sampling). This was because I thought it would be useful to ask them about the relationship of the garden with its surrounding community, how the garden is organised, financed, and other organisational matters. For this reason, I gave them the option of taking part in the photo-elicitation, or just an interview, as I did not want to be taking up an excessive amount of their time. However, there was reluctance among some to be viewed as a co-ordinator, as they liked to think of themselves all as volunteers on an equal basis. The result was that two co-ordinators did choose to take photographs.

I approached people at the gardens myself to ask them if they would be prepared to take part (convenience sampling) and also asked the organisers if they could suggest anyone who may be willing to participate (snowball sampling). Whenever a volunteer agreed to take part in the research, I gave them a research information sheet to read (see appendix 1), ensuring that they understood what was required of them, then, if they were comfortable with the process, I asked them to sign a consent form (see appendix 3). I also asked them to fill in a brief demographic information form (appendix 4). These steps were consistent with the approval of my research given by Lincoln University's Human Ethics Committee.

Some community garden members immediately expressed their willingness to participate while others wanted time to consider. I interviewed a total of 23 people, consisting of 11 males ranging in age from 36-85 years, and 12 females, ranging in age from 24-83 years. These were people who identified as New Zealanders, and three of other nationalities. No potential respondents who categorised themselves as “Maori” put themselves forward for interview. The number of people interviewed at each garden ranged between four and six, except one garden where I was only able to find two willing participants.

### **Photo-elicitation and interview**

I tended to focus on interviewing participants in one garden before I moved to the next one, although there was some overlap. This was due to non-availability of participants for the interview, and/or the variable time taken to complete the exercise of taking their photos, and emailing them to me, often with comments about the photos already attached.

I asked the respondents to take the photographs over a period of up to four weeks. I suggested they take ten to 12 photographs each - some took more than this and some less. If they wished they could also include photographs they had taken previously, if these photographs had significant meanings for them. For example, there may have been a particularly memorable social function, or a seasonal photograph of the garden, which occurred before the allocated time for taking the photographs. My original intention was to issue each participant with a disposable camera, instructions about how to use it, information about the research, and a notebook if they wanted to record any comments about why they chose to take a particular photograph, or any experiences, meanings or feelings associated with the particular photograph. These photographs and notes would act as prompts during the in-depth interview. In reality, it soon became clear that participants preferred to use their own digital cameras, and email the photographs to me when they had completed the task. This was a good decision. It saved a lot of time as I did not have to collect the cameras and get the films developed. It also reduced the cost, as the purchase of disposable cameras was not required. I did however make copies of the digital photographs that were sent to me, to take to the interviews. Some people also included written notes when they emailed the photographs, which helped me to guide the subsequent interviews.

The option of using a disposable camera was still available for anyone who did not have a camera, but no-one needed this. One participant had a digital camera but not a computer. In this instance, I went to her home with my laptop and downloaded the photographs from her camera, then proceeded with the interview. I think it is important to be able to adapt to people's needs, as then no one is excluded from being involved, on the basis of not having access to technology. This was a reminder that even in this digital age not everyone has access to a computer or the knowledge to use

it and, when working with volunteer groups, adjustments may need to be made to accommodate all participants, so that everyone has an equal chance of participating.

Aside from the example above, each time I received the photographs I then set up an interview time, had copies made of all the photographs and took the photographs and any notes that the respondent had included with me when I met them for the interview. The interviews were digitally recorded, except for three people who requested that I take notes instead. I went through each photograph with them, asking them questions, such as what was meaningful for them about the photograph, or why they chose to take a particular photograph. I followed their lead, and added any questions that appeared to be relevant either during the interview, or from my thoughts about the photographs before the interview. I had prepared a few questions to use in the interviews, but the use of these questions varied depending on their relevance to what the participants were saying about their photographs.

### **Change in method**

New Brighton was the last community garden I visited. I already had results from four gardens, but as I became more aware of the effects of the earthquake on people's lives and their community garden experiences, I realised that it would be beneficial to study a garden which was in a severely earthquake affected area. Due to logistical constraints, such as the time available for the fieldwork, I decided to alter my method for this garden, and rather than using the photo-elicitation technique, I chose to do short interviews which focused on how the earthquake had affected the lives of the respondents, and how involvement in the community garden had contributed to their well-being. I altered the Research Information sheet for New Brighton to reflect this change (appendix 5).

When I had completed the data collection, I sent an email to the co-ordinator of each garden, thanking them and the other gardeners for their participation.

## **3.7 Data analysis**

Taylor and Bogdan (1998) described qualitative data analysis as "a process of inductive reasoning, thinking, and theorizing" and as a "dynamic and creative process" (p. 140-141). They also described the analysis as an "ongoing discovery - identifying themes, developing concepts and propositions" (p.141). By this they meant the process of discovery and intuitive reflection needed to be constantly taking place throughout the data collection process, not only at the stage after transcribing is completed.

I became 'immersed in the data', as I transcribed and categorised the data in terms of the research questions and emergent themes. I asked myself questions about these themes, by reading and re-reading interviews, note taking, and testing insights iteratively with the data. Throughout my research I kept a notebook for writing down ideas, which supplemented the data. Reading and reviewing the literature was an important part of the process, to assist with my interpretation of the data. Whenever an idea became apparent or a theme emerged from the data, I researched the literature to see what had been written that would assist my understanding of 'what was going on'. This iterative process of studying the data and reading the literature helped me to develop my ideas for my theories. Lofland and Lofland (1995) emphasised that flexibility is vital in qualitative analysis and data gathering, so being open to redefining my approach based on my findings at any stage of the process was essential. For example, I made a change to focus on well-being as recovery after the earthquake, and also on connection with nature in the gardens, as I became aware of the importance of these two factors.

I coded the findings using a combination of NVivo to establish the major categories, and then manually sorting and looking for connections. NVivo is a qualitative data analysis computer software package, which allows users to classify, sort and arrange information and to examine relationships in the data. Coding refines, develops, or discards what were "initially general insights, vague ideas and hunches" (Taylor & Bogdan, 1998, p. 151). After sorting the data into the coding categories, I compared the data and refined my analysis. I then wrote my results in Chapter 4, organised into the themes that had emerged from the data. Although some discussion of the data is included in this chapter, the major discussion about my results is in Chapter 5, interwoven with a review of added literature, to make sense of the results and to form my thesis.

Note: In the results chapter, the photographs relating to New Brighton community gardens were taken by me. The participants at New Brighton only took part in an interview, not the photo-elicitation, and some of the photographs I had taken myself seemed an appropriate addition, to illustrate some of the meanings the respondents were telling me. Also, the photograph of the scarecrow was taken by me, and included to illustrate the input of kindergarten children which was mentioned as an integral part of three of the gardens. None of these photographs were used in the interviews. All other photographs were taken by participants, and formed part of the interviews.

### **3.8 Ethical considerations**

Along with meeting the expected ethical obligations of social science research, the photo-elicitation process requires different ethical considerations than an interview, as particular care needed to be

taken when asking people to take photos that may include other people. I requested that the respondents not take photos of anyone in a situation they would not be comfortable being photographed in themselves, and not to take photos of anyone who did not want to be photographed. I also stated on my information sheet that in my final written thesis, I would pixelate the faces in any photos of people so they were not easily identifiable, and that names of participants would be replaced with pseudonyms. These steps are all consistent with the protocol approved in the application to the Lincoln University Human Ethics Committee.

### **3.9 Summary**

This chapter has discussed my methodological approach, which was thematic analysis of qualitative data, and my specific method of photo-elicitation, a method which uses images as the basis for a qualitative interview. I discussed my reasons for choosing the photo-elicitation process. My method of recruitment/selection of participants was described, including how I went about my observations. This was followed by a brief description of each community garden I studied, highlighting some of the similarities and differences that I had discovered in each garden. I then discussed my process for collecting and analysing the data, and concluded with some ethical considerations, particularly some that were significant for the inclusion of photographs of people in research.

The actual results, plus some insights that I gained through my analysis of them, will be presented in the following chapter.

## Chapter 4

### Results

#### 4.1 Introduction

The literature suggests that community gardening involves people coming together for the common task of gardening, resulting in caring for and producing plants, commonly food and flowers. My results will show that in this process of coming together, as well as producing food, the gardeners are creating other meanings, such as developing social contacts, benefiting from contact with nature, creating memories, learning gardening skills, some survival skills, and transferable skills (skills that can be used in other contexts such as at home or in work places), and knowledge about sustainability for the future. When I asked the question “What is the difference between gardening at the community garden, and gardening at home?”, I received a range of responses including that the community garden provided opportunity for sharing ideas with and learning from others, less isolation than gardening alone, the ability to grow a range of products, more space, and the voluntary aspect of doing something for pleasure. The activities associated with these meanings are enjoyable, and participants show an appreciation of life. All of these attributes of community gardening can assist with the development of well-being and renewal in individuals and communities. This aspect of development and renewal has particular relevance for the study sites. My research took place in Christchurch in the aftermath of the Canterbury earthquakes, and as my fieldwork progressed, and in line with my theme of well-being, it seemed important to look at community gardens as places to assist with healing after a natural disaster.

Through the photo-elicitation method and qualitative interviews the respondents voiced a variety of meanings that the community gardens have for them. Contextually, the environment of nature and the environment following the Canterbury earthquakes of 2010-2011, provide an integral background to these meanings. The results of the research will be presented in detail in this chapter.



## 4.2 Objectives

This research had three objectives. The first was to gain an understanding of why people participate in community gardening, and what meaning the community garden has for individuals. The second objective was to gain an understanding of the role and functions that community gardens provide for local communities. These are combined in the presentation, as some findings are relevant to both objectives. For example, workshops are relevant to education for individuals, and they are also a function that community gardens provide for the wider community. I have made an exception for the social theme, where I have separately identified social benefits to the individual and to the community. The third and key objective was to identify the types and levels of well-being gained by individuals and communities from participation in community gardens, or, how the meanings identified in the first two objectives contribute to well-being.

## 4.3 Presentation of results

People participate in community gardening for a range of reasons. The following section will present the results within the emergent themes of Physical aspects, Education, Aesthetics, Social aspects, and Earthquake effects.

## 4.4 Physical aspects

### 4.4.1 The natural environment.

Nature is the overarching physical aspect of the community gardens. The gardens are embedded within nature, and the interactions that take place in the gardens involve people and nature.

Community gardens provide a piece of accessible nature for urban dwellers. Many of the participants' comments alluded to the importance of, and an almost innate desire to be in nature, consistent with Wilson's Biophilia hypothesis (Kellert & Wilson, 1993). In the following quotes, Luke and Graham illustrate this, as they both felt the need to go into the community garden for restoration and renewal after being in front of a computer screen. Luke said being in a garden or a natural environment felt like where he was supposed to be, which reflects an innate need to be in nature. He argued that people spend a lot of time looking at virtual reality on screens which disconnects them from the 'real' world that can sustain them.

*Well it just feels natural [laughing] it just feels like that's where you're supposed to be, and then when I spend time locked up in this office trying to*

*write my thesis or whatever I'm doing and I think [pause], it's a bizarre world we've created where we all go into our cubicles and stare at screens, and I read something recently 'a screen is something that blocks your view of something else'...so we look at virtual pictures of reality, but those virtual pictures are screening our view of reality, I mean there it is out the window, so um, yeah, I've always loved being outside (Luke).*

Luke refers to an aspect of modern society, in that we have created an environment which although offering many benefits, often goes against our natural instincts. We have access to the virtual world, which opens up possibilities, but the screen actually blocks our view of the natural world outside. Graham said he felt like “a real person” again and “not part of a computerised machine”, which again reflects this need for nature to restore him, and also of the importance of the garden not just for coming together with others, but for individual restoration.

*This part of the garden for me, I love to be there by myself, so it's funny in a way, you know we're all about community and meeting each other and all of that important stuff, but I love to just retreat back into this kind of wild zone at the back of the garden and, I often go there in my lunch time and just have a walk around, push my way through the raspberries and whatnot, because it really is a restorative for me, but um, during the working bees I also will often go down there and just potter around by myself. Because, I'm facing a computer screen for most of the day and it does my head in but this is really good, it just helps me to reconnect and feel like I'm [pause] real again, real, a real person and not a part of a computerised machine, so that's a good feeling, especially when the feijoas are ripe, oh my goodness (Graham).*

Charlie is a recent immigrant, who chose New Zealand because nature is important to him and his family. He said “it's very important to us being surrounded by nature, garden, greens.” He added, “the nature relaxes me and I feel comfortable, and I feel calm, yeah, refreshing” (Charlie).

Luke said, “The task and the environment create a really nice way to interact, you could spend the same time with those people in this room [his office] for example and it wouldn't be anywhere as good.” He went on to give an example, “it's a natural situation but it's also in doing a common task ...we're planting the potatoes and we get chatting about such and such and it's just a completely different dynamic, that's how I find it anyway” (Luke).

Luke is saying that discussion in the gardens is influenced by the environment and the task, and this suggests that, in sharing a common task while being embodied in nature, the conversation and interaction is more relaxed and easier, than it would be if the same group of people were surrounded by the more sterile walls of an office. It also suggests that the characteristics of an actual place are an important aspect of well-being, which also supports the view that “an improvement in well-being has been attributed to escaping the pressures of modern living and gaining a connection to the plants

and earth in the form of a very embodied interaction with the natural surroundings” (Edensor, 2000 as cited in Muirhead, 2012, p. 144), even if it is only escaping out to the natural environment of the community garden.

Some people were aware of the importance of the natural life cycle of the garden, as Ruby described.

*Working in a garden connects me to the seasons and patterns of nature. I don't get the same sense of awe as being in the wilderness but the constant reminder of where we are in the year and what is to be celebrated about that time of year. I think observing and interacting with plants, soil and food throughout the season is a wonderful way of being present on the earth and aware of natural cycles” (Ruby).*

Gardens follow seasonal changes. In spring new shoots appear with the promise of new life, summer is the growing season, autumn is preparing for the end of life, and winter represents death, a resting time in the garden, preparing for the next cycle. This also reflects the human life cycle. Luke’s comment also alludes to the idea that in a similar way our lives also mirror the seasons.

*It’s just being in that natural environment and having actually the task of growing and nurturing that little bit of land, and seeing it over the, because I’ve been involved there since 2004, and seeing it develop over the years and then go through its seasons, like you see it in winter every year when it’s kind of fairly stark and then every summer it gets a bit overgrown with summer holidays and then it gets kind of beaten back into shape a little bit, and then all the produce comes through and it’s that kind of um... it’s always changing but there are the cycles, so it’s kind of, a really natural way to live isn’t it? (Luke).*

Interestingly, these ‘cycles’ represent not just the four seasons which happen each year, but, also the gardening activities and other events such as holidays, and festivals that occur regularly each year. What happens in the garden reflects natural and human events.

At a more specific level, Jacky describes the restorative power of nature through simple act of looking at sunflowers,

*oh we plant a lot of sunflowers, it’s our sort of symbol, actually we’re just working at the moment on a logo and it will be a sunflower, so we have red ones, we have yellow ones, we have brown ones with green centres, yellow ones with black centres ... and also I think they’re such a happy plant, so the people in here if they are a wee bit, I go ‘look into that flower’, you know, you won’t feel sad when you look into that flower (Jacky).*

This is a wonderful example of gaining emotional strength and well-being from looking at a flower. It also shows a positive attitude, which is important for resilience and counteracting negativity and uncertainty, particularly in disaster situations (Okvat & Zautra, 2014).

Graham made a connection with the importance of the social events taking place in the natural space of the garden, indicating that he would not have the same experience in another space.

*The social events are very important, they are important for me personally, I feel a sense of joy, and it's a good space to do that in, it's different from having it on a big piece of tarseal in a carpark or I don't know, any of the other spaces that we've got on campus (Graham).*

The previous discussion shows the importance of nature itself, and the next section focuses on the actual physical space of the community gardens.

#### 4.4.2 Physical space

Within this surrounding nature, community gardens provide a physical space where people can garden. Urban conditions, including smaller apartments and also the trend towards larger houses which cover a greater proportion of the section, as can be seen in most modern New Zealand subdivisions, means there is often less space to garden at home. Daniel, for example, said the community garden gave him "a sense of space, my garden at home is a small flat.....I enjoy being in an area where I'm not so confined, I guess, yeah" (Daniel).

The more tangible reasons for participating in community gardening are growing food, and physical exercise. To the casual observer, the task of growing food is probably the most obvious reason for the existence of community gardens.



Figure 4.1 Produce.

Lester's photo of healthy looking produce was taken because "they're just to show you what we're here for really" (Lester). Lester's main reason for working in the garden was to grow and provide food for the community and those who need it. He thinks

*sometimes people lose sight of this in their lofty ambitions to save the world... my interest in the garden doesn't extend a lot beyond making a good job of the garden and providing, ah, veges at the right time of the year and particularly in the winter when there's not much around, and keep the things going. It's for the people that come along too, because there's not much point in having a nice garden if you're not actually producing stuff to eat.*

He calls himself "the ultimate in recycling", he is practical "just making things and fixing things", a committed community gardener, and says "everything I do has got a purpose usually" (Lester).

Florence liked having the ability to grow a variety of produce, much more than she could grow in her home garden. "You can grow a lot, a range of stuff, I think it is efficient, it's easy, it's easier I think, it's less stress than trying to do everything yourself" (Florence). Participants in the community gardens usually get a share of the produce to take home. Consequently (for example), when a crop of cabbages is ready, they can be shared, avoiding the problem that sometimes occurs in home gardens, where a dozen cabbages maturing at the same time is too much for the average family.

As reported in the literature review, gardening involves physical exercise, which is important for well-being. The respondents in my study said they got exercise through "digging the garden", "being active", and "moving the compost from one bin to another." Susan said if she was not involved in the garden she would "probably be sitting in front of the TV as a couch potato, swallowing lots of lollies, fizzy drinks". Being in the fresh air was important for Barbara, and also Luke, who spends a lot of time in his office, and said being able to "get out there and do physical stuff is always good, get out there in the sunshine and fresh air."

For those who are unable to garden alone such as the elderly or disabled, they can share tasks such as digging or heavy lifting. Dorothy, who uses two sticks to assist her walking, walks three blocks from her house to get to the garden, and she considers that as her exercise. The physical theme is a combination of tangible and intangible results. Growing and producing food and the physical exercise involved in the gardening tasks are the tangible results. The relaxing, restoring aspect of the natural environment, and the innate need to be in nature, as if it feels "where you're supposed to be", are the intangible results.

## **4.5 Education**

The tangible and intangible results can also be seen in the educational theme. Education has a strong emphasis in community gardening and covers a range of learning from basic gardening skills through to personal empowerment. People may go to the garden for a tangible reason such as learning to grow vegetables, and through the whole community garden experience, gain more than they expected in the way of intangible benefits, such as more confidence in themselves as a result of their achievements.

There is recognition of the fact that learning is a lifelong task and people are there who want to learn. Fred, one of the older gardeners said “oh I like to think I always have a slot for learning something myself, I often say you’re never too old to learn.” Fred had a wealth of knowledge about rare plants which he enjoyed passing on to others, and he referred to himself as a “plant person” and said “plants are a totally important part of my life,” and he was able to give knowledge as well as receive it. Others also spoke of this mutual learning and sharing, as a reason for community gardening, rather than gardening at home. Florence said “I have liked it because we learn stuff from each other, it’s a good way to share things, share knowledge.”

Some participants went to the weekly working bees with a background of gardening, and they shared this knowledge. Others came with little or no knowledge. I observed two participants being shown how to tie string to a climbing bean frame. The following week, one of these participants was showing someone else the skills she had learned the previous week, which demonstrates how the skills people gain can be quickly passed on to others. People may come to the gardens never having grown so much as a lettuce, and they are guided and nurtured much like the plants themselves, and experience the satisfaction of gaining knowledge and achieving a result. Luke said, “students come along, we show them how to grow stuff really easily, without using chemicals and all that stuff, they can go home and do that, again I guess it’s that educational thing.”

### **4.5.1 Workshops**

Lunch time and weekend workshops can attract people who do not usually come to the garden. The main focus of the Lincoln Envirotown garden, in the Selwyn district south west of the city, is educational. People tend to come to learn skills to use in their home gardens, rather than participate regularly in the community garden. Brian thought one reason for this was that “it’s a pretty middleclass sort of town, um, there aren’t too many needy people actually, so people have their own gardens, so I’d say that’s why we focus on running events which people will actually come along to learn, educational aspect.”

Brian's comment is interesting as it suggests that only 'needy' people and those without their own gardens will want to participate in community gardening. My results disagree with this as they show that many people participating in the other community gardens, within a mixture of socio-economic areas, did also have their own gardens, which is indicative of an alternative meaning/role of community gardens, than only growing food. However, the organisers in Lincoln had chosen what appeared to be the best focus for their garden in this particular context.

Some community gardens offer workshops on specific topics such as pruning, container gardening, and compost making, which participants can do in their own gardens. As sustainable gardening practices are an important aspect of community gardening, learning how to make and use good compost is a fundamental physical element of the community garden.

*They [compost bins] are absolutely integral to be able to get the quality back into the soil to help grow the produce, so, it's all part of putting back what we've taken out, and just utilising what we already have and creating a cycle all the time (Barbara).*

Workshops are sometimes in response to a direct request, for example at Lincoln "someone said to me last year they'd like to know about glasshouses" (Liz), and also in direct response to perceived community needs, for example again at Lincoln,

*the container garden, is very compact, portable, it's easy care, cheap to set up, ideal for the folk in the retirement village [directly opposite the garden], so we're putting in a personal invitation in each of the letter boxes of people in the retirement village to come across because its only costing them \$2.50 for the container, the plants and the potting mix (Brian).*

This highlights the free or affordable nature of most workshops, and the personal invitation would be welcoming, another aspect of creating an atmosphere conducive to learning. There could also be the social benefit, of a chance to get to know others in the community.

On the eastern side of the city, New Brighton garden's workshops were aimed at garden participants and also the needs of the local community. Although the garden itself was unaffected by the earthquake, it is located in a severely earthquake affected suburb, and it also offers workshops that connected gardening topics with survival skills, such as making cleaners, saving water. One hundred people attended a workshop on composting toilets, "all the things now that people are aware of after the earthquakes, things that you actually need, you've got to have water, um, you've got to look at if all your services go down how you're going to survive" (Jacky).

#### 4.5.2 Personal growth.

In the above comment, Jacky suggests that having some knowledge of survival skills can give people more confidence about coping in a disaster. There is an element of self-empowerment in her comment, which suggests that education helps people to help themselves. Both Matthew and Luke acknowledged the community garden gave people the opportunity to realise they could do things for themselves, when they said

*the more you know of the basic things so that you can look after yourself, the less unfortunate you possibly [laughing] can become, even if its understanding what the issues of growing stuff are (Matthew).*

*the community garden and the skills and mind-set it fosters as being about the self-empowerment that comes from knowing you can do something yourself, that you thought you needed a big industry to produce for you, and the sense of personal empowerment that comes with that, yeah, so I think that's all part of what is happening here (Luke).*

Throughout my research it became clear from respondents' comments that alongside the community gardens providing conditions for plants to grow, they also provide the participants with conditions for personal and community growth and renewal. By personal growth, I am referring to the humanistic psychological notion of 'becoming,' which was advanced initially by Carl Rogers and later by others, and became widely adopted. Rogers believed in the importance of a person being in a relationship or situation in which he/she feels accepted. This acceptance provides the necessary state for the person to then "discover within himself the capacity to use that relationship for growth, and change and personal development will occur" (Rogers, 1961, p. ix). Rogers' interpretation of growth "meant movement in the direction of self-esteem, flexibility, respect for self and others" (Kramer, P as cited in Rogers, 1961, p. ix).

Barbara's next comment illustrates the importance of an environment that is conducive to encouraging others to feel safe to experiment with new ideas. People need to feel respected and accepted, in an environment where there is openness to listening and being heard.

*I say that people can do whatever they like in the garden as long as they are respectful of the garden, and respectful of the others that work within the garden, but if they want to have a little crack at doing something that we all think 'oh what a stupid idea is that', then you just go right ahead and its either going to be a stupid idea, or a great idea, and it's all going to be a learning curve at the end of the day (Barbara).*



Barbara's attitude impressed Matthew, who said

*Barbara is one of the prime movers for the place, I specifically like her because when I first met her, one of her introductory comments really was she said, 'the only thing I don't want to hear around here from anybody ever, is 'you can't.' It was a very, [pause], I've never heard anyone say it like that before and I was very impressed, it just showed a strong openness towards trying things, you don't have to succeed, you have to be willing to give it a go, the worst thing that can happen is that it can go wrong, never mind, give it another go, try something else... (Matthew).*

People are accepted and appreciated for the skills or gifts they bring to the garden, and this is acknowledged. Matthew said

*there's generally a sense of achievement and reward having done it, somebody says thank you, pats you on the back, or you can look at something you've done and go, I did that, even if it was just mow the lawn, that looks better than it did this morning, I've done something useful. (Matthew).*

Matthew's comment also reflects his sense of achievement and at another garden Ruby talked about witnessing others' achievements. She said "I've seen a few people come in and be quite shy and kind of blossom into having, feeling quite proud of being part of the garden and confident and comfortable with people there." All these are examples of Rogers (1961)'s idea of need for acceptance and recognition in personal growth.

#### **4.5.3 Learning transferable skills**

Skills are not only learned through workshops, but also through continued involvement in the garden. An important aspect here is that this learning is mostly free, which makes it available to anyone. Transferable skills that can be used in other areas of life help people's personal growth and ultimately can lead to community growth. Many people were inspired to do things in their own garden because of the influence of the community garden. Luke's photographs often showed an aspect of the community garden, with a corresponding scene of something similar that he had created at home, including creating a worm farm, caring for chickens, and using sustainability/permaculture principles.

Daniel talked about transferable skills, and he was also aware of the personal growth aspect of his involvement in the community garden when he said

*the time that I'm finishing my diploma and the time that I spend here at the garden I'd like to be able to practically apply some of the things that I've learned so that, I think when you learn things, if you can apply them in some way, I think that makes a real difference to the retention of the knowledge that you've learned so I guess I'm looking for ways of building myself as a person, pause, and trying to apply the things that I'm learning at university, something that I enjoy (Daniel).*

Lester, who maintained he was primarily there to grow food, did acknowledge that he had acquired some transferable skills that led to some financial benefits

*it has actually had quite a lot of spinoffs, if you look at it I mean, um ...I actually made quite a lot of money making another pizza oven for someone, I got those skills, and the irrigation skills I've improved on them, and that's been quite useful in the jobs I've been doing (Lester).*

#### **4.5.4 Learning about teamwork**

Acquiring leadership skills can be an important aspect of personal growth. At the community gardens there was no obvious distinction of tasks being allocated based on gender. Tasks were shared, unless someone was unable to do a particular task because of age or disability. However, women were the main organisers of all the gardens I visited, an insight also mentioned in some earlier research (Parry et al., 2005). An interesting scenario was that two of the women (both volunteers) who were viewed as leaders by other gardeners, did not recognise that in themselves. Joan did not consider herself the primary decision maker, she told me she was just “one of the others”, and “the gardeners make most of the decisions” (Joan). Even so, the other gardeners constantly deferred to her. Gerald, for example, felt that it was important that he deferred to Joan, as he was a relatively new garden participant, and she was well respected in the wider community. Others also found her inspirational.

At another garden, Barbara appreciated the total voluntary nature of participation, where no one was seen to have ownership, even though the others regarded her as one of the leaders. She said

*we've been through transitions where we've had garden managers, but as soon as you have a garden manager, in a way the garden becomes their garden, and after the last garden manager when we, we all ended up being yelled at at different times, and we had to do this this way and that this way (Barbara).*

This comment of Barbara's also alludes to the idea that community gardens are not always an 'oasis of calm'.

There are opportunities to learn to work as a team, deal with conflict, learn about co-operation, and coming to a consensus. There is recognition that everyone is different, and has a combination of approaches and personalities. Matthew said

*I don't think anybody is particularly important around here, um, everyone has their, everyone does their little bit and it's just about [pause], collectively I think we've got a very broad range of skills, and I think that makes a very good team (Matthew).*

However there were occasional conflicting views amongst the participants. At another garden, Lester's vision clashed with the sustainability ethic of the garden. Lester had agricultural

qualifications and experience, and was very committed to the garden. He spent a lot of time looking out for recycled materials to construct glasshouses, compost bins and other requirements. He was most interested in practicality, and was frustrated with the extra work involved because he wanted to use treated timber and it was not permitted. He was keen to do a good job but he “couldn’t be bothered” with the requirements of needing to be completely organic if he, as a practical person, could see what he thought was a better solution.

Gerald was also interested in a practical solution, as he had spent hours digging out twitch, and he said “the problem will be the twitch coming through again, through the bricks, and that will create a bit of a dilemma for Joan, but I think it needs to be sprayed” (Gerald). The dilemma being that spraying would go against the sustainability ethic.

The following are examples of different ways of looking at issues, dealing with conflict and coming to a consensus. Issue one was deciding whether to acquire chickens.

*Um, we had a good old argument about the chicken shed, and that was raised primarily by me, and my primary concern was the fact that I thought the group was getting into something, I wasn’t against getting chickens, I was really concerned that people hadn’t thought through what the implications of getting the chickens were downstream [pause], question one really starts off with what do you do when the chickens get old and tired, because you have to support, if you’re not going to stick them in the pot, you have potentially half of their lives when they’re not going to be useful, and how will the group respond to having to raise hundreds of dollars a year, to support some elderly chickens, and I wasn’t trying to make any decision about it, but I did have a terrible time trying to say to people, we need to think about this fair bit before we worry about the near bit, and everyone patted me, well one person patted me on the head and said “don’t worry about it, she’ll be alright”, which isn’t my view of the world at all (Matthew).*

Matthew’s approach was to think through the implications of a plan, not just rush into things, whereas others were happy to ‘go with the flow’.

Issue two, at another garden, was whether or not to chop down a cherry tree, and they used the exercise as an educational experience.

*We looked at the tree as an educational example of something, and so we had an expert come in who looked at it and said, it’s just too big, you should just take a third of it off, and we all chatted about that and decided ‘yes’, we would give it a go, because there was nothing really to lose, if the tree died as a result of it, you know, I mean people were wanting to chop it down anyway, and then we took that kind of expert advice along to the Friday gardening session which was very unstructured ...and we kind of used it as opportunity to bring people together around a particular issue in the garden, and again there were a variety of views, some people still wanted it*

*to be cut down, but eventually relented and said ok, we'll just try one more year, and because it turned out so well, it completely changed people's perception of that one tree (Graham).*

#### **4.5.5 Education of children**

Children are also included in community garden life. Lincoln, Opawa, and New Brighton community gardens have plots for the local kindergartens to visit and to grow plants. Children from the day - care centre next door to Okeover, were visiting one day I was there. Parents and grandparents bring their children to the gardens. At New Brighton Jacky said

*I had a mother in here on Saturday with two really lovely wee boys, five and three year old, and we've got children's garden tools, a little wheelbarrow and fork for them, they were eating raw corn while they were doing it, brilliant, they just loved it, just had some funding from Vodaphone so we're working on our children's area here, putting in new swings and a sandpit and we want to put little edible fences round, so that's our project for the moment, yeah, so we really encourage children here, we love children being here, and it's nice for the older people (Jacky).*

As well as the educational and fun benefits for the children, there is an implied social aspect of the mixing of the generations, and of the older people enjoying the children's company.

Some of the community gardens have scarecrows that have been created by the local kindergarten children. In this way they can show their creativity, and also ownership of a particular patch of the garden, where they can be proud of their achievements.



Figure 4.2 Opawa kindergarten's scarecrow at the community garden

School involvement in gardening is growing. Not only are the children learning about gardening, but a science lesson can be integrated with learning about making good compost. Jacky said

*we have lots of school groups as well, all the local schools have got school gardens now, and filtering into high schools now so we've got Shirley Boy's... and they're hoping to incorporate their science groups this year with us as well, come down and look at composting and the different science, there's a young teacher there that's really pushed the idea and his brother teaches at St Bede's so they've just put in a garden there as well. So it's becoming, huge, it really is (Jacky).*

These results have shown the importance of education, of creating a conducive environment to enable people to learn, of transferable skills that can be learned from gardening (for example the science involved in composting), leadership skills, and of empowering people to be able to do things for themselves, that previously they may not have thought possible. By learning these skills there is the potential for them to 'grow' in self-confidence and to feel empowered as people.

Also in a community garden, my results show that people can learn more about themselves through experiencing re-connectedness to their inner selves, and connectedness to nature, through aesthetic appreciation.

## **4.6 Aesthetics**

Aesthetics is concerned with the creation and appreciation of beauty. Hale et al. (2011) found that the aesthetic experiences of community gardeners “generate meaning that encourage further engagement with activities that may lead to positive health outcomes” (p.1853). My results show that aesthetic experience in community gardens is expressed through sensory awareness, creative expression, and contemplation. It seems from so many of the photographs and comments that ‘reflexivity’ is what these gardens can offer people – that is the chance, or excuse, to reflect on life and deepen their sense of what it is to be alive.

### **4.6.1 Sensory**

One way this reflection is experienced and expressed is through the sensory connection with the garden environment. The words used by the respondents and photographs taken, clearly show that they relate to aspects of the garden through their senses, or that feelings, emotions or memories were awakened. Gardeners demonstrate a sense of pleasure, gratitude and appreciation of life, and of noticing the beauty in the ordinary, everyday things.

Through the imagery in Luke’s sensory description of a social occasion around the pizza oven, one can almost connect with the experience.



*I just love watching the fire, smelling the smoke and I'm halfway through a glass of my home brew there, so to me well that's the good life...*



Figure 4.3 Home brew and the pizza oven.

*and the next photo is what it's really about, is all those people that gather around it, so there's the garden and there's the permaculture aspect but there's the whole social thing, so there are the students putting their pizzas together, in the sun, surrounded by this beautiful permaculture garden, the wood smoke smell going, the pizzas going, there's a bit of home brew, and I bring ginger beer for Darcy because he doesn't drink, and Paul brought rhubarb champagne, and I mean, um, really life doesn't get much better than that, and it's just right there, you know, and anyone can do that (Luke).*



Figure 4.4 Gardeners enjoying the social occasion.

Luke's photographs show that for him 'the good life' can be achieved with very little in the way of material goods. He appreciates his surroundings, the people, food and drink.

A feature of one of the gardens is its collection of rare and unusual plants. This is important for David, and his photograph captures the stunning visual essence of this plant, but also represents for David the diversity, and uniqueness about that community garden.



Figure 4.5 Lobelia.

*it represents to me what this kind of garden is all about because this is not your normal community garden because it doesn't grow just vegetables, and it represents to me in the area where it is, a fascinating diversity of plants (David).*

It also represents the patience required in gardening and the idea that some good things take time, as he and others are patiently waiting for the lobelia to flower, which will not be until next year. They have been told "it's a lovely looking, it's a beautiful looking flower when it comes out, it's very tall and it's just fascinating" (David).

There were many other photographs taken or comments made relating to the sight, the sound, smell, taste and touch aspects of the gardens. Grace said "I wanted it to be bright as you walked in and I planted out a big bed out here, I planted out a bed of Iceland poppies, and they looked lovely, yeah, you just walked into a blaze of colour."





Figure 4.6 Garlic.

Susan appreciated the scent from the garlic. They “just put it up on the racks to dry out, but when we have the door open the wind kind of blows it [the scent] off” (Susan).



Figure 4.7 Cherries.

Graham reflected his love for the taste of cherries.

*I really love cherries and these are the ones we got from the branch I bagged. I like the image because they say 'life is a bowl of cherries.' I don't think it is, but for me a bowl of cherries from a community garden is one of the best things you could get from life. And everyone was so blown away by how tasty they were! Many smiles!*

He said the main sense he connected to in this photograph was the taste.

*mm, for me its taste, my mouth waters when I look at this because I can remember what they were like and it's just heavenly really, just heavenly* (Graham).

Through the visually luscious cherries in the photograph and Graham's imagery, one can almost taste them. This is another reference to the good life, and pleasure from the simple things.

Jacky reflected on the sense of touch and embodiment with the soil when she said, "I love getting my hands in the dirt, on a quiet day and I can actually weed a little patch I find it just really calms me."

This shows that physical contact with the earth is calming for her. I can relate this to a technique called 'grounding', written about by Ken Mellor, who is internationally recognised for his 'down - to - earth' teachings on inspiration, meditation and personal well-being (Mellor, 2011). Grounding is similar to practising mindfulness in that it relates to the here and now, and Mellor says "we are grounded when we are aware of the physical sensations in our bodies, the physical things and events

around us, and the physical exchanges between the two” (Mellor, 2011, p. 54). This natural process can be as simple as being aware of the contact with one’s feet on the ground (Mellor, 2011). To me, Jacky’s resulting calmness when in contact with the soil is a similar example of the benefits that can be obtained from experiencing ‘grounding’.

There was often laughter and chatter, “it’s a happy space, it’s nice to hear people laughing and talking” (Joan), and birds were often mentioned, “I came here alone the other day, and noticed and watched some birds and their babies, and thought I heard a bellbird” (Trudi). Occasionally a lawnmower could be heard, but generally the gardens were peaceful spaces. Even at Opawa, with a very busy highway running alongside, I also had a feeling of peace and tranquillity, a feeling that was supported by Matthew, who said “one of the first senses I had when I came here was tranquillity” (Matthew).

When the participants talked about their photographs relating to the five senses, they were telling me their stories about themselves and what is fundamentally important to them. Often the everyday things can allow us to reflect on what it means to be alive. One small plant can facilitate that ‘moment of enchantment’ (Bhatti, Church, Claremont, & Stenner, 2009). The senses also connect with mindfulness, and a heightened awareness of our surroundings.

When discussing her meaning of a photograph of a quince tree, Joan illustrates an example of mindfulness and heightened awareness. Mindfulness is about being able to see the beauty in the smallest of things, focusing on the here and now, not always looking ahead (Dixit, 2008; Franklin, 2002).



Figure 4.8 Quince tree.

“I quite like the depth in the photograph because I know there are things along this back fence that are not immediately obvious and that’s one of the things about this place, you have to look to see the treasures” (Joan). In saying this, Joan was emphasising that if we take the time to look we may find the precious things that are ‘right under our noses’ that often go unnoticed.

Joan also talked of the excitement of something new to see in the garden. She said “sometimes when we have our little gatherings on a Thursday you say I have something to show you, and they all troop off and admire it [laughing], so it’s that heightened appreciation.”

The garden also shows us how we can find beauty in everyday occurrences, or “enchanting encounters in everyday life” (Bhatti et al., 2009, p. 63). The unexpected encounter of a flower that was not in bloom the day before, or the glorious scent of a wisteria bush in the early evening, can be momentarily breath-taking, and links with the sensory aspect previously discussed.

Ruby expressed a sense of excitement about the germination process “I really like weeding, and thinning the new seedlings, the carrots and beetroot and things like that, because it’s like, wow, they all germinated, this is actually going to work, and we just need to take care of it now”, and she also said “I was thinking about sunflowers too, about how you get this absolutely amazing flower from one tiny little seed.”



Jacky also mentioned the awe and wonder of the growth of sunflowers “and the strength of one seed, it blows people away that one seed’s just grown that huge, a thing like that.”



Figure 4.9 Young plants.

Daniel took this photograph of young plants, which he said for him “shows the promise of things to come, and the care that we take to produce these plants.” At another garden Trudi said “anything you work on and see grow immediately becomes like one of your children.” Both of these comments relate to the nurturing and caring that is a feature of community gardens and the suggestion that the people are cared for in the same way as plants.

## 4.7 Creativity

This sense of awareness and of noticing the detail leads on to creativity. Creativity can be another way of appreciating life, and the community gardens provide many opportunities for people to discover or develop their creativity. Primarily, it is important to recognise that the gardens are creations in themselves. The layout, the growing of plants, and the artwork, are all a result of peoples' creative ability.

Creativity can be a part of personal growth, when people realise they can be creative, and may not have previously realised it. Luke admitted he had never known he was creative until he was at a function where there was a group of "amazingly creative people." He said he was "in awe of people that have that kind of artistic ability", and as he was chatting he was asked by a photographer 'what do you do that's creative?' and after being initially taken aback he thought

*well, hang on a minute, and I said well um, I'm a really keen skier, and I make nice little tracks down the mountain and that's a beautiful thing, and I said I brew beer, and I garden and build and I started to think, yeah I do all these things, but I'd never thought of myself as a creative person, I saw myself as a practical person, but I never really thought that could be creative, I mean when you look at some of these photos [of the community garden] you think, wow! and it doesn't mean that it was an original design, but I mean, we did it (Luke).*

#### 4.7.1 Creativity as art

Daniel likes to paint, and in the following two photographs he represents his appreciation of the garden produce through the eyes of an artist. He notices the detail and in his words, the 'vibrancy' of the autumn/winter growth.



Figure 4.10 A Romanesco.

“This photo is a brassica called romanesco...I particularly like it because of the form and I guess it’s sort of a series of um, sort of compounded sort of flowers I guess and it forms a large rosette, I just found it quite attractive” (Daniel).





Figure 4.11 A winter scene

*It was just a photo that I'd seen with the lines that probably drew me sort of like walking down a pathway , um, yeah it looked green and sort of vibrant and the plants all looked healthy, it was taken during the autumn, as you can see the apple trees, their leaves are deciduous at this time of the year, same with the cane crops as well, it was just a, I guess it was a winter's day, um, the plants looked green and healthy, I thought like it looked like a nice photo which represented the sort of, I guess the production that still happens during the winter months or the autumn months during the gardening that happens here (Daniel).*



There are many fine examples of mosaics at the community gardens.



Figure 4.12 Mosaic 'chooks' (chickens)



Figure 4.13 Mosaic sign at New Brighton



The New Brighton garden has a mural on their outside wall, which looks inviting, and is a great form of advertising, as well as involving the wider community in its creation.



Figure 4.14 Mural at New Brighton community garden

### 4.7.2 Creativity from the produce

Many enticing jams and jellies are made from the garden produce



Figure 4.15 Produce from a community garden.

### 4.7.3 Creative use of recycled materials.

Creative use of materials is made possible by people noticing the potential in the things around them, the items that can be recycled into something else. Community gardens exist with limited outgoing expenses, partly because a lot of creative use is made of all sorts of recycled materials which are used extensively in the gardens for frames, garden beds, etc. Dorothy appreciates the way that things a lot of people would call junk, are used in innovative ways and said “I like that about the park, we can be innovative, think outside the square, we are all different, we have all got different talents and skills.” There are numerous examples of this type of innovation including a herb bed made from a book case, where the back was taken off and the bookcase was filled with soil and different herbs were planted in each cubbyhole. Participants go to garage sales and actively seek out items that can be made into something useful. Opawa garden acquired a wrought iron archway, and items are stored in a corner of the garden until a use is found for them, including old swing and bed frames.

The Opawa community gardeners have created a play area for the children within a planted environment. It is a multi-purpose area made from recycled materials that have been collected or



donated. This is also another example of creativity – of visualising the potential and using the materials for a functional growing area and a play area, for minimal cost.



Figure 4.16 Opawa children's play area

*...and the bean frames, from an old swing frame and this is like a little space for children and it hasn't worked very well this year but normally we would have runner beans climbing up those pieces there what happens is it makes it like a little haven, a little house, and there are little rounds or blocks of wood from trees sitting on the ground and children use it like a little fairy house... but once again it's still about materials that have come to the garden that have just been donated from people that have just arrived from nowhere, and then we've utilised them (Barbara).*

At Okeover, Lester calls himself the 'ultimate recycler,' "oh, I'm probably the ultimate in recycling, really, I mean, nothing's wasted", and he spends a lot of his time keeping an eye out for useful materials for the garden, such as "more of these same concrete posts, I saw in a sheep yard being demolished, and the posts were free through 'Buy, Sell and Exchange', so I got several trailer loads."





Figure 4.17 Collapsible bean frame

Lester was also responsible for this idea for an innovative bean frame

*To make the beans grow, we built an area along the fence and it wasn't quite enough so, we started off. Kirsty made some out of bamboo stakes and that wasn't really very permanent, first one was made of bamboo with wires going around the bottom, and I thought "there must be some better way of doing it than this", and I came up with the idea of making something we could use each year, that's not going to fall to bits, and its collapsible so you can fold up the bottom and fold up the top, undo the strings on one side and it all folds away, store it somewhere instead of people falling over it (Lester).*



#### 4.7.4 Creating memories.

There is a massive supply of earthquake-generated bricks in Christchurch, from broken chimneys and buildings, and bricks feature in community gardens in the form of raised brick gardens, brick edges, and other creations. When the gardeners at Packe Street garden decided to create raised beds they chose to use bricks many of the people in the surrounding community lost their chimneys in the earthquakes, so the bricks have special significance and this is a tangible reminder of the garden's connection with the local community. It is also an example of using the bricks to make positive creations out of the negative experience of the earthquake.



Figure 4.18 Raised brick beds

Packe Street garden has many memorials. David said “it’s all sort of a brick memorial garden here , Joan’s called it different things...but I’m sure that’s what she means it to be, it’s a memorial to the residents from the earthquake.”

Their memorials also have a specific link to places of significance in the community. In this way they are including the community and its history, as part of the garden.



Figure 4.19 Strawberry tower.

This photograph shows a 'strawberry tower,' for growing strawberry plants, which is created from local chimney bricks and part of a fireplace. It is one of the 'Commemorative Chimney Pieces' in the memorial garden. It is functional, as well as a creating a memory.





Figure 4.20 Foundation stone from Coptic Church

The white stone is the foundation stone from the local Coptic Church which was demolished, creating a link to an important part of the community and its history that was lost in the earthquakes.

*That's the foundation stone of the old church, the old Coptic Church, which was a Protestant church at the time, I can't read that very well....but somebody from this neighbourhood will know the name of the church, but it was a Coptic church then and it was really at the centre, one of the centres of the suburb (David).*

Community gardeners have planted plants to remember people who have died, and who had a significant presence in the garden, and to celebrate new life and the living. There were many more comments relating to memories. Memories enable renewal through connection with the past and through bringing the past into the present. Having a memory of an event or a person can be part of a healing process and help people to continue on in their lives.

There is a place for a range of creative talents, for the people who want to grow the vegetables, the people who can create functional, decorative or memory art and those who want to turn the produce into food. Often the food that people bring for the working bee afternoon teas and lunches has been created from community garden produce, and brought back to share.



#### 4.7.5 Memories and identity

Some photographs that people took show how the community garden connects them with important memories, and which give them a sense of their identity. Dorothy took many photographs of colours and shapes which connected her with memories of her childhood and family, including these ivy leaves which she said have beautiful shapes and colours in autumn.



Figure 4.21 Ivy leaves.

This photo reminded her of the time when her grand-daughter was at the garden, playing on the swing. Dorothy collected the leaves and dried them and her grand-daughter took them home.



Figure 4.22 Yellow flowers

Dorothy's mother had a yellow garden. She took this photograph of yellow flowers, as another connection back to childhood. Dorothy did not find out until she was in her 30's that her father was colour blind, and that was why there was lots of yellow (decoration) in their house.



Figure 4.23 A brassica [Brussel sprout]

Daniel's photograph of this magnificent brassica reminded of him of an important time in his life. "I spent a bit of time in Guernsey [propagating plants] and we grew walking stick cabbages in Guernsey...I guess when I looked at it reminded me of the time that I'd spent which was living in camp site in Guernsey, helping the families"(Daniel).



Some photos at first glance appeared to have little to do with gardening. One of Joan's photographs was of a Christmas cake, and when I asked her what the photograph meant to her she said



Figure 4.24 Christmas cake

*this is a picture of my mother's type of Christmas cake, she was not into royal icing and she used marzipan, you can see how it's a bit cracked, but um especially angelica, and I'm a grocer's daughter, and we used to get angelica when I was a child and it was all in boxes and it was wrapped up in greaseproof paper and um it had to be cut up and weighed out, and I know you can get it at Johnson's I've only ever bought it there once because it's very expensive, but we have the archangelica plant here and this angelica I crystalized myself, um, it takes quite a long time to do, you have to boil it 6 days, then lay it out and let it dry (Joan).*

She went on to say "I think it represents a lot of people [pause] ... of doing things as they used to be done, even in a strange country" (Joan).

Joan made an emotional attachment through the angelica plant in the community garden, back to her childhood days with her mother the process of crystallisation, and the local connection with Johnson's grocery<sup>6</sup>. She also shows how doing a task in the traditional way represents identity for her and for others, and links with her birthplace.

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<sup>6</sup> A boutique grocery store which has been a Christchurch icon since 1911, specialising in imported and less common products, and described as an "eclectic display of British, American and European grocery goods" (<http://www.neatplaces.co.nz/place/johnsons-grocery/>) .

Ruby also took a photograph which represented the things that were important to her. The photograph shows her bike which is her preferred way of travelling, her child's seat, outside her place of work, and vegetables from the community garden. "I feel really chuffed when I'm riding my bike home with a lot of veges on the back." After saying where she put the vegetables when her daughter was in the seat, she said

*this is quite an idealistic photo because in reality I don't ride nearly as much as I'd like to ride, but I think if life was not so complicated sometimes then I would be happy to ride around and my daughter on the back and got some veges and sort of simple...yeah, I think that is a reflection of me at the moment, it's what I do (Ruby).*



Figure 4.25 Reflection of identity.



#### 4.7.6 Contemplative spaces

Another way that the gardens encourage reflection on life is through facilitating meditation, and feelings of peace and tranquillity. Some people commented on a connection with something bigger than themselves. As a visitor, when I stepped into each of the gardens, I immediately had the awareness that each is a special place, accompanied by a feeling of more positive energy than where I had just come from. Joan's next comment reflected another awareness that I also had, that community gardens are not just about 'doing', but about 'being' when she said "people need to be exposed to beauty and places just to be, in a big city" (Joan).

My findings contain many references which have a spiritual component. Spirituality has many different definitions, and in health research these can be defined as either secular (for example, connectedness, integrating aspects of the self, or seeking meaning and purpose in life) or sacred (for example, a belief in a higher power, or a reality greater than one self) (Unruh & Hutchinson, 2011, p. 567).

Dorothy took many photographs of aspects of the garden which she associated with her relationship to a spiritual being, which was obviously important to her. There was a lot of symbolism in her photographs. Her comments reflect traditional Christianity, as the basis of her spiritual understanding.



Figure 4.26 Rocks

At the beginning of the life of this garden there was no seating, and the rocks were brought in to sit on. Dorothy reflected on why she took this photo saying, “Jesus said he was the rock, and he’s the rock of my life.” Dorothy’s home garden is very small and is mainly a collection of plants in pots, whereas she said the community garden is “a bigger area of creation that I can enjoy.”



Figure 4.27 Mosaic path

Dorothy describes the mosaics as symbolic of putting lives back together.

*Father puts our lives back together like his love is the grout and the different pieces are for the different stages of our lives. It's like putting a jigsaw back together- some pieces fit easily and others are more difficult to see where they go (Dorothy).*

I also see this as an appropriate analogy of broken china used as a symbol of broken lives, as in Christchurch, china that was broken in the earthquakes is commonly used to create mosaics. The Packe Street gardens are viewed as a place of memories, and contributing to healing after the earthquakes. When I asked Joan if the mosaic path had any special meaning, Joan’s answer was “no, people work their own meaning into it”. It is of special significance to the creators, and a visual feature for viewers to enjoy.

Luke conveys the biblical image of the table in the wilderness as

*the table in the wilderness image from the Bible always occurs to me at the community garden, because there's no power, and you've got to sort of truck everything in, and then out of nothing we set up these trestle tables and next thing there's all this amazing food and this fantastic celebration, and then afterwards we clean it all up and pack it all away and there's nothing there again almost, it always strikes me as its quite amazing that this kind of thing just appears, out of people's good will really that's what it comes out of (Luke).*

Food, celebration, contribution, effort, all comes out of people's good will; they do it because they want to, not because they have to, and they get pleasure from this. This also links with volunteering and intrinsic motivation (Ryan & Deci, 2000).

Comments showed evidence of people experiencing connections to something that moves them deeply, or restores their equilibrium. Trudi described the community garden as "a special place...close to the meaning of life", and Graham describes the importance of his contemplative connection with the community garden as

*being tranquil and being in nature, that's more important to me than food justice or ecological justice, because those are, they are extremely pressing and immediate issues, they affect everybody, so I'm not saying they're not important, but coming back to myself and having this kind of connection with um, something that's a bit more fundamental and maybe spiritual, is a much, it's something that I feel a lot more than I would feel the need to grow more food for the community, at large (Graham).*



This photograph shows a path down in the orchard, at one end of Okeover community garden.



Figure 4.28 Path through the orchard.

Graham talks about a meditative walk, where he is aware of his surroundings and senses, and his need for a connection with something deeper in nature.

*This is my favourite part of the garden, where it is all secluded and dappled light, and where you're hemmed in with delicious feijoas, raspberries and fennel. I just love it. When you're in there you feel all alone and tranquil. Sometimes I go through this walk as a deliberate meditation. It's a very peaceful, calming, green part of the garden, and a bit wild. Love it...*

It is also important for Graham to reconnect with himself, and the sensory aspects of sight, touch, and taste, facilitate that re-connection, as does the nurturing of this green, natural space.

*I go to the garden quite a bit in the lunch break, just to get some time out, time out of the office, to reconnect, to find some peace and um, seeing green is good for people really, and I like to walk around the garden and just pick my lunch sometimes, you know, some people would take a bowl with them and make a salad but one thing I like to do is to eat the salad as I'm walking around the garden, a bit of dill here, a bit of a lettuce here and whatnot, some calendula flowers...so it's a bit of a meditative eating sort of stroll thing, I guess too also spend some time in like a more deliberate prayer because I find that this environment here is just so intense sometimes, not in our office, but the ... system is very much a business, it's like a corporation, and going to the garden is just (pause), um, it's not just the green because I could get green from sitting on the lawn, one of the big lawns that we've got, I like that feeling of being enclosed, and, by something very wholesome, because it is a really wholesome space, it's very nurturing (Graham).*



Matthew also described how for him, being at the garden is

*a complete distraction from my normal world, and um looking after the greenhouse in the early phases of the growing season can be quite meditative, just because it is a very slow gentle process of, you have to gently water things, you can't just go in with a hose because everything's nice and sturdy and needs gallons of water, so it's an enforced slow process, and I remember one occasion I went into water in the green house and I really was quite wound up about the world and by the time I kind of fell out of there is was just 'oh I feel better' (Matthew).*

Having to slow down allowed him the space to see things more clearly. "If I'm having a stressful day I will just come here and potter around and go and water" (Matthew).

## **4.8 Social**

The social aspect is probably the most significant difference between the community garden and the home garden. There is evidence of people sharing, nurturing and supporting others, appreciating the like-minded and the different, enjoying seeing others achieving and growing in confidence; an environment which is conducive to people learning and facilitating personal growth. People are also having fun, making friendships, and connecting with the wider community.

### **4.8.1 Benefits for individuals**

Participants from four of the gardens gave a strong indication that, for them, people are the most important aspect of the gardens. The first photograph that Barbara chose was of the gardeners all gathered together for the lunch break, because for her "the people are the integral part of the whole garden, if you don't have the people and the volunteers, you don't have a garden." Barbara expressed her gratefulness for the people who have become part of her life, and for what they bring to the garden

*that's been the loveliness of the different people ... everybody brings their own skills, or their own [pause], whatever it is they have to give to the garden, everybody's gifts I'm going to say is different... the people are so precious (Barbara).*

Later she reinforced her position that the people were the most important part of the garden when she said

*to me the vegetables has got nothing to do with it, actually, and I don't actually take a lots of vegetables, because it's about the people and it's about building relationships and building harmony within your community, and caring about people... creating, caring and sharing are the three things that to me are the significant things about the garden, creating caring and*

*sharing and then the respect for the garden and those who are involved.*  
(Barbara).

The “cup of tea and a natter” is an integral aspect of the working bees and. People look forward to this set time in the working bee when they all gather and chat, and share food (often made from the garden produce). It has become even more important since the earthquakes, as Joan said, “I think more people are coming to enjoy the afternoon tea and just be, ah, supportive to each other” (Joan).

Jacky, one of the paid organisers said she would still come even if she did not need the job “because of the whole spirit of the place, the giving of the people, the connection, the way people look out for each other.”

For some, the enjoyment of spending time with like-minded people, who all had a common interest was important. On the other hand, Matthew appreciated meeting people with different ideas, people with different social interests than he meets on a daily basis, and “spreading my social wings.” As an engineer, Matthew looks at solutions from an engineer’s perspective, and is interested in different ways of doing this. He said

*I learned a lot from Star Trek, Captain surrounded himself with people from different disciplines and different views of the world, this helped him when he made decisions - I’m interested in the different ways that people look at things- learning things fascinates me. [He added], part of the reason I’ve been always interested in this group has been exposure to people I wouldn’t normally meet... I’ve always been interested in decision making... and the people who make good decisions invariably ask other people, and the broader the range of the backgrounds of the people they interact with the better the decisions, the more considered opinion generally, and with a broad range of input ...(Matthew).*

Several people indicated that they keep coming to the garden because they get pleasure from seeing others achieving, growing in confidence, and just enjoying themselves. Graham said

*I like to turn up because we have some really cool people that are coming along, I can really see [pause], I can really see the value at a very deep and fundamental personal level for some people who have come to the garden, you can just see them change so much...become more confident, and um ....independent, yeah as people, yeah, their gardening skills improve of course, but that’s, you know when they recognise that their gardening skills are improving then they feel really proud of that, and it’s cool, for me I um, so that’s one thing... I just like to check in on the people (Graham).*

Charlie is motivated to come to the garden by his daughter, aged eight, and the enjoyment she gets from participating in the garden. “She really enjoys gardening here and talking with people, she likes talking with adults.” He went on to say, “it’s sometimes hard to wake up early Saturday morning and

come but she is my main incentive, every Saturday morning she says 'I am going to the community garden' ...she's my motivation...I'm happy to see her happy face."

Barbara told me of a photograph she had wanted to show me, but could not find it. She related this story about elderly neighbours meeting again after many years

*not long after the garden first started a lady came to join the garden by the name of Judith, and it turned out that she was a carer for this elderly lady, and the elderly lady lived in a house that was on the property of the actual community garden, and so that became kind of quite exciting in itself, and she didn't know that when she first came, it wasn't till she went back home and told the lady, so when we had an open day, and then the people, the house that was beside the community garden now, there was an elderly couple who were involved with the church who lived there, and what happened is the lady who Judith cared for came to the open day, and this old neighbour came and these two hadn't seen each other for years, and they sat in the garden that day over a cup of tea and cake, and it was just [pause], they had a beautiful time*

When I commented that her story was so special, she went on to say

*... and that really is what the community garden, that brings home" [voice near tears]... it was just absolutely beautiful, and if I could have sourced that [photo] I would, because if you could see the joy on their faces about getting together, and they often used to pop in to each other for cups of tea, but because one had moved on and that sort of thing, you know how life goes sometimes and it was just purely by chance that lady came to care for her who was interested in gardening, came to see about the garden, and we had the open day and she brought her down, it was just magic...they're both passed on now, but that was just, it was, it was a very special moment (Barbara).*

This one incident shows how the presence of the community garden facilitated a special moment that touched several people. The meeting brought joy to an elderly couple, a connection with the history of the garden and community, and the pleasure gained by the couple and also by Barbara to be able to witness their joy.

Conversely, community gardens are also spaces where people can be individual in a communal environment. People do not always want to interact with others, sometimes they just like to be where others are. If I am weeding at home, for example, I am sometimes conscious of the aloneness. In a community garden I can be doing the same task but other people are there which takes away that feeling of aloneness. For others it is about something to do, and they can be with others, but not interacting a lot with others. Patty told me she liked to go to the garden with her husband as it was "something they could do together, but not totally together," an example of being together in a less intense way than one on one, or even in group conversation.

Daniel said at the community garden he had “learned a lot about other people and how to, sometimes um, think about my own actions and how I can relate myself to, to fit into a group of people that I might not necessarily know so well”. Dorothy, who has difficulty hearing and therefore finds it easier to talk one-to-one rather than chatting while doing another task, said “I go for company but I do my own thing.” She is happy working alone on her own projects, but joins the others for afternoon tea.

Gerald, who is a relatively new garden participant, has a huge garden at home, and he did not join for social reasons. “It doesn’t seem like the people that are there I particularly want to get involved with as friends, um, so I guess, you know, that wasn’t the plan to meet new people, kind of thing, I’ve got plenty of other sort of connections where I can do that” (Gerald).

I observed other instances of individual behaviour in a communal environment. Graham said that during the working bees he would sometimes go to the orchard area by himself. This illustrates how he has the choice of interacting with others, or being by himself in a communal environment.

*I love to just retreat back into this kind of wild zone at the back of the garden and, I often go there in my lunch time and just have a walk around, push my way through the raspberries and what not, because it really is a restorative for me, but um, during the working bees I also will often go down there and just potter around by myself* (Graham).

Graham shows how the community garden helps him to care for himself. He realises how important it is to care for his own needs, physically (walking around and healthy eating), restoring himself through contact with nature, spiritually (meditation/prayer/mindfulness), and all of this is available to him through his relationship with the community garden.

## **Motivation**

The voluntary nature of community garden participation was a significant motivation for Matthew, who enjoyed gardening at the community garden more than at home because at home there was a requirement to mow the lawns, etc.

*the difference is that here we don’t have to, and that’s a significant difference, because one has a burden of, a requirement of, and the other one has the, ‘I’m doing it because I feel like doing it’, rather than because the grass is looking a bit too long or whatever...so I tend to try and gather projects that I don’t have to...they’re just more enjoyable* (Matthew).

Matthew’s enjoyment was lost when his actions were not voluntary. Barbara also felt happier, when she was gardening with like-minded people who appreciated gardening, and not being “a slave” to her own quarter acre property.

Conversely, some of the paid organisers felt the responsibility of their organisational role at the community garden prevented them from experiencing the garden in the same way as the volunteers.

Jacky said

*here I'm organising everyone and I've got to make sure everyone's happy and that making sure that the planting's continual and that there's enough plants and quite a bit of organising involved...if you deal with a lot of people you've got to have a space (Jacky).*

Further discussion indicated that the paid organisers experienced more freedom in their home gardens. So the voluntary aspect expressed in these comments seems to relate to the level of freedom people experience. Not having to do something, or the voluntary nature of it, can increase the enjoyment (Ryan & Deci, 2000). It also relates to mutual aid volunteering, where benefits are gained by all parties involved (Bishop & Hoggett, 1986).

#### **4.8.2 Connection with the local community.**

There are many ways that community gardens connect with their local community. Some gardens have regular newsletters, and all are listed on the Canterbury Community Gardens website<sup>7</sup>. Workshops are also a form of outreach to the community and a good way of informing the community of the garden's existence. Attending a workshop may be an introduction to the community garden, and can encourage people to participate. Packe Street garden host the annual community Christmas carol service, and recently some other events, as suitable venues are in short supply since the earthquake. It also celebrates Matariki<sup>8</sup>, with a special working bee. Okeover, with its pizza oven and kitchen facilities, is well set up for social functions for the gardeners. It is also a venue for meetings of like-minded groups.

Joan enjoys when people come back to the garden, who she has known as children.

*I love it, and I love looking at them and sort of trying to remember the child [pause], I think another thing that's really good about a place like this is when you get to know them when they are little like this, um, of course they expect you to know them (Joan).*

Fred, likes to grow rare plants that will be of interest to the whole community. He enjoys chatting to people, answering their questions and passing on his extensive plant knowledge. Gerald's vision of the community garden was for community development, and a resource for providing food to the people who really need it. He said, "it's about the idea of community and developing the community, a resource for the community, and for people to be attracted to it and for people who require food to be able to utilise it" (Gerald). An interesting point is that Gerald didn't participate for the social

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<sup>7</sup> [www.ccgga.org.nz/](http://www.ccgga.org.nz/)

<sup>8</sup> Maori New Year

connections at a personal level, but appears to value the community garden's contribution to the community.

As the Lincoln community garden is situated in the grounds behind the maternity hospital, the patients and visitors find it a peaceful place to relax in.

*the maternity hospital, having it there is quite a blessing really, because we often find there's a dad with children, or a mother who's in there, just walking round the garden, Dad might be waiting for something to happen or visiting and giving Mum a break, so often there are people from the maternity hospital visiting, or just having a look around and that's really great (Brian).*

### **Inclusivity**

Jacky also thought the community support function of the garden was more significant than the actual gardening. "I look at it as the garden is like 30%, the community is 70%, the garden is just a small part of what we interact and do but the community side is huge" (Jacky). She thought the community garden

*would be the best community asset in Brighton at the moment, its safe, anyone that walks through these gates is as important as each other, that's our philosophy, we've got 'special needs' people, then you get ones that are very hard grafters but it doesn't matter ... so the main thing to me is that when people come in here, they really enjoy their day, they come in as volunteers, and that they're walking out feeling even better, it's a safe place (Jacky).*

She also said

*there are some very needy people that come in here, very needy, we've got a young lad, he hasn't turned up as yet, but he's quite highly autistic, and he takes quite a lot of my time when he's here, even his carer was here the other day and said have a look at his posture he's standing straighter, you know like he's achieving things (Jacky).*

Her comments reflect the inclusiveness of the garden, and the focus on people having an enjoyable, safe experience, and growing through achieving.

At Packe Street, there is much evidence of integration of different ethnic groups and cultural needs within the garden. For example "One of the vines is of the soft leafed European variety and is very good for making dolmades. At that time there was an increase in the number of migrants coming to Christchurch from dolmades-eating places – Iran, Iraq, Turkey and Syria etc." (Joan)

As already mentioned, Packe Street garden has two Maori poupou<sup>9</sup> to support the grape vines which were carved as a holiday activity by two groups of young people from the neighbourhood. Introducing unfamiliar plants to immigrants is an element of the educational and inclusive relationship between the gardeners and the locals who come to the garden. Joan gave two examples of this.

*When I was talking to the Bhutanese people last week I introduced them to the French sorrel, which I know that one of the Indian people uses for sort of pickle or chutney thing, but when they tasted it they could see why and they got really excited about it so they had never met sorrel before (Joan).*

There is also lots of the pesky apple-mint (a terrible spreader) favoured by Mediterranean people in yogurt as a condiment. Around the base of the poupou there is thrift which reminds those of us who grew up by the sea in Ireland, of home (Joan).

There are many different ethnic groups living in the area, who collect produce from the park. As the garden is in a public park, anyone is entitled to collect the produce, whether or not they have contributed to the work of producing of it. This is an interesting concept in today's society, as Joan says

*we have no control over our useage really, and so we have this idea of there's no deserving...the people who do the gardening don't necessarily get to harvest, and people come in and harvest who have never done anything they wouldn't even lift a flax, ah, cabbage tree leaf and put it away, so you just have to accept that there is no deserving, and I say to people, 'the rain falls on everybody, the sun shines on everybody, the food is there for everybody' (Joan). Reflecting on this, Joan said it's an odd philosophy in a land where it's user pay.*

Charlie is a recent immigrant, and a regular participant at another community garden. His first photograph, of a group of community gardeners at the tea break, was taken to show that the garden community is very important to him. "Since I've been here people are very nice to our family, I really enjoy it and I like [the] people and people are very kind to us, so here is very important to me and my family, they accept us" (Charlie).

Barbara gave an example of how community gardens are inclusive, and try to accommodate needs instead of expecting people to abide by a set of rules.

*a couple of years ago we had a Muslim lady start, now that was a thing, for a start she would come when we were there, and then she would come when we weren't there, and you could tell she'd been and we ended up giving her her wee plot because we could see that that's what she wanted to do, and it was about trying to build, community gardens build bridges,*

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<sup>9</sup> Maori carving

*they build bridges and that was part of it, you know, ah, it's a huge learning curve for them and for us and for everybody (Barbara).*

Community gardens also take on the role of integrating disabled people and people who are referred through the Corrections Services. Jacky said

*and another thing we've instigated is we have, well I have Ferndale<sup>10</sup> school on Wednesday mornings, so the carer and 2-3 lads come in for a couple of hours every Wednesday morning, and ah work away, mix in with everyone, that's huge you know... and we take on a few community service workers as well, through the corrections, and we've had great success with that, we choose who we take, and one girl working here a while ago, she was here while we were doing an open day, a massive open day, lots here, helped all day in the kitchen making scones and things, and she comes back and volunteers here now, which I think is huge (Jacky).*

Children's needs are also an important consideration. There are not many urban places that children can climb trees now because of higher density housing (the area around Packe Street park is zoned L3<sup>11</sup>). The Packe Street community garden has a slightly different focus than the other community gardens I visited, as the garden is in a public park, and they have a special relationship with the local children, as the park is their playground too, "it's really important. It's the children's place. And we try to be respectful of the children, you know" (Joan).

When designing Packe Street Community garden, they had some input from a landscape planner, and the student assisting the planner consulted the children about what they wanted.

*He [the student] had six sessions with the children at that time to find out what they wanted, and so that's why we've been left with the concrete path over there, where the old garage was and that driveway, which the council didn't like at all because they thought it was ugly, but actually the children use it for learning to ride their bicycles on and skateboarding and that sort of thing (Joan).*

The fact that the children were consulted is a significant point, as it shows that this garden really is about community rather than growing vegetables. If the focus was on the latter, there would be no need to consider the children, as they are not directly involved in productive 'labour'. In fact, while Packe Street park/garden has a strong focus on children having a place to play there, teaching or involving the children in gardening is not a priority use of their time, unlike some other gardens. Joan said, "I really, really believe children need wild places to play." She took a photograph of the den the children have created at the rear of the garden, enclosed by the branches of a large tree and stacks of tyres. This is their special area, and "huge fun has been had by successions of seven to ten year old

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<sup>10</sup> a special needs school

<sup>11</sup> The Living 3 Zone allows for the 'town house' type of development to medium densities (<http://www.ccc.govt.nz/thecouncil/policiesreportsstrategies/faqs.aspx>).



children in this little den. The tree is climbable. We had dens like this when we were children; there aren't too many places where you can find one in Zone L3 Christchurch" (Joan).



Figure 4.29 New Brighton garden's children's play area

New Brighton garden's play area is very eye-catching, with a sandpit enclosed within a ship. They also have children's garden tools, to encourage children to participate and learn about gardening.

Community gardens have a welcoming feel about them, they are seen as safe places, and are easy to walk into. "The garden is a place where people are welcome at any time, there are no gates" (Dorothy). Barbara also feels very strongly that community gardens should be open to encourage people to come in, and that this openness also encourages trust.



Figure 4.30 Entrance to Opawa Community garden

*This [photo] is not so much about just the cabbage tree, this is just about the front of the whole thing[the garden], and there was talk at one stage from some of the leadership of the church, that they were talking about fencing off the whole place and securing it with gates and fences and all that sort of thing, and I said, well if you're going to do that, I'm out of here, I said because to me I like the openness and I like, this is just bare, we inherited that, those plantings were always there and there's something just relaxing and part of nature and almost says 'just come and see what's round the corner in here', so this to me says this is welcoming, fences to me are not welcoming and you have to trust people for them to trust you and you just have to take that risk (Barbara).*

A downside is that most of the gardens have experienced some minor theft, usually of produce, mosaics, or some vandalism, and Okeover's remaining mosaic chicken is now secured to the ground.



Sometimes people just come in off the street and offer skills. David related a story of the birdbath carved from a piece of Oamaru stone given to the garden



Figure 4.31 Bird bath

“Some fellow came past and said, ‘it looks like you need some stone carved’, so he carved that” (David). This suggests that people have an awareness that the gardens are safe and welcoming places to walk into, and also shows the acceptance of others’ skills.

Donations are often unsolicited, as in the following example. “Hagley Aluminium gave us some fine bendy off cuts of thin aluminium to use as boxing” and then “quite out of the blue one early morning a stranger phoned and asked if we would like him to deliver a load of builder’s mix and cement” (Joan), demonstrating an awareness of the community garden within the wider community.

## 4.9 Earthquake

As my research took place in the aftermath of the Canterbury earthquakes, it is important to consider the effects of the earthquakes on the garden participants. People told me their stories of the death of a loved one, destroyed gardens, loss of homes, loneliness, displaced people, and loss of familiarity with their surroundings. For them, the thriving community garden was like a 'little oasis of tranquility', and was helping them to rebuild their shattered lives

Liquefaction<sup>12</sup> destroyed many homes and gardens in the earthquakes. For people whose home gardens have been affected, and in some cases destroyed by the earthquakes, growing vegetables at a community garden is a practical experience, as they now have a place to grow food. However, it became apparent to me that many people were experiencing the gardens as places of healing. People are able to be creative, while all around them is in disarray. There is a sense of having some purpose, even though nature is uncontrollable, and it helps to alleviate the sense of helplessness felt by so many people in Christchurch who are still in limbo about the future of their homes and properties. Many people are still waiting for insurance assessments, and for decisions about whether their house will be repaired or rebuilt, and so are unable to move on with their lives. As Joan said, "it helps to give people purpose, you know, while you're waiting, waiting, waiting for something to happen, it's something you can be doing, together... just creating something" (Joan). This is another example of the importance of focusing on and appreciating the day-to-day occurrences.

Many people came to the garden for company. When I asked if more people had come to the garden since the earthquakes, Jacky from New Brighton said " Oh definitely, definitely a lot more , including an increased number of visitors, we get um, up to average 16 visitors a day, from all over the place, and that's increased hugely since the earthquakes" (Jacky).

I then asked her if they said why, or if she had any feeling about why they might have come the garden since the earthquake and she said

*Yeah, we have quite a few people that live on their own, and they would say to me, they'd come in and they'd be quite, a bit jumpy and a little bit, you know it must be hard living on your own, they come here just to be able to chat to somebody else, and achieve something in the garden, and one woman she was leaving one day and she said "look at me now, look how different I am now" for being here (Jacky).*

For those who had a fear of being at home alone after the earthquake, sharing tasks and being with others can be a distraction, and potentially shift one's perspective of a situation, as indicated by

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<sup>12</sup> "conversion of soil into a fluidlike mass during an earthquake or other seismic event" (<http://www.merriam-webster.com/dictionary/liquefaction>).

several of the participants in my study. Jacky mentioned another gardener who had been coming since the earthquakes. When I asked if this person's garden had been destroyed at home, Jacky said

*Um, not too badly but I think she just couldn't handle being home alone, so coming down here people can work and talk away while they are working, get a few things off their chest, it's good to talk about things. And maybe here people are in similar situations and you realise you're not on your own so much, and the place has got a good caring feel, everyone looks out for each other, and I can always do a follow up, I've got lots of regular people, that I know would be here each week and I think ooh, I can give them a call and just, especially the elderly (Jacky).*

Being with people in similar situations who understand what they are going through, caring and looking out for each other, mutual support, are all ways that people cope, even more so after a disaster. Some people just come to the garden and sit. Trudi said "since the earthquake, places like this have saved many people's sanity."

The community garden is about mutual support, as it involves giving as well. Jacky said

*It's an amazing thing, I get blown away by the amount of [pause], the amount of time people give, it just amazes me, they're stepping out of their back doors...enjoying them...and since the earthquake the community's become so important (Jacky).*

Shirley and Ron, for example, had a well-kept lawn and garden in New Brighton, and now only pieces of it are left. They have been coming to New Brighton Community garden once or twice a week since the earthquakes because it's "somewhere clean and green, to get away from the silt and dust and grey and wet and gluggy." Their house "shakes with machinery." The garden helps them to cope because they "can get out of the mess, away from it, and away from the smell." They came to the garden because it is close to home, "clean and green" they feel comfortable, the people are nice, and the area is better than home. They get "depressed looking at their home garden", but "the community garden reminds them of hope for the future of their home garden", and they can come here and "switch off", and "forget the frustration of waiting for the bureaucracy."

Some people use the community gardens as a refuge for whatever can be saved from their home gardens. This is sometimes temporarily until the owner has re-located from their red-zoned houses, or sometimes they are permanent donations. Grace said "I brought down plants from my ruined house, my roses are down here. Elsie brought her remaining fish, she

*had a lovely pond with fish, about twenty something fish, most of the fish died in the earthquake because I had a kind of a netting over it and a lot of them got squished out, caught in the netting and they died and I ended up with I think three or four which are down in the pool in the corner here [laughing], I brought them down (Elsie).*

Packe Street garden is 'twinned' with a garden in the North Island, similar to the twin cities concept. They share seeds, photographs, newsletters and in particular after the earthquakes

*two lots of their people have been down on holiday and come to see us, and they sent us lots and lots of seeds, they'd all saved seeds, and at their last AGM they sent us some money which allowed us to buy some... they wanted to help Christchurch and they saw this as a way of helping out (Joan).*

The importance of the garden as social support is much more evident in New Brighton, an eastern suburb severely affected by the earthquake, than in Lincoln, a town in an area to the west, which was much less affected, and consequently is experiencing a rapid rise in population. A visitor from New Brighton came to the Lincoln community garden, "she came from Brighton and after the earthquake she said everyone just congregated there for the garden to talk and do something, but Lincoln's not like this" (Liz).

#### 4.10 Summary

This chapter has presented my results and some insights about them. I began my fieldwork with some knowledge from the initial reading that I had done, of why people participate in community gardens. My aim was to explore the meanings of community gardens to the individual and community, and examine the possible well-being implications of these meanings.

In response to my first objective relating to individual meanings of community gardens, my results have shown that **individual participants** 'grow' through the healing and restoring contact with nature, growing and eating healthy food, and learning a range of skills from basic, practical gardening skills though to confidence and empowerment. They are exposed to a range of aesthetic awareness - sensory engagement with nature, an opportunity for contemplation and reflection on life, and a chance to discover and practice their creativity. Through social contacts they can build supportive relationships, enjoy the company of like-minded people, and learn new ideas. Particularly in the post-earthquake environment, they can experience a sense of healing. They show an appreciation of life in 'everyday' spaces and of the easily accessible things that life has to offer.

In response to my second objective relating to meanings for the community, my results have shown that for **communities**, the gardens provide a piece of accessible nature within urban environments, food for community needs, educational workshops that attract people from the wider community and a place to create community history and memories, particularly those that connect with the community post- earthquake. The gardens are inclusive and provide a place for everyone to

experience gardening and nature, and can provide a social space for community events. Community gardens can help in building resilient people and communities.

In response to my third objective, relating to well-being for individuals and communities, my results have shown that **well-being** comes from restoration and renewal through nature contact, from experiencing the 'good life' through appreciation of life in everyday spaces, from healthy food and exercise, from learning new skills leading to achievement and empowerment, and from the nurturing and caring support which is helping to heal and put 'lives back together' post- earthquake.

As my fieldwork was conducted in the aftermath of the Canterbury earthquakes of 2010-2011, which affected everyone in Christchurch to a greater or lesser degree, this was a significant influence on community garden relationships and meanings. I also became interested in looking at the significance of the relationships with the physical environment of nature. Consequently, because of what I was noticing during my fieldwork and my engagement with the data, my original intention broadened to include the meanings of community gardens within the context of nature and the earthquakes. The following chapter will discuss these themes in more detail, interwoven with added literature, to make sense of the results.

## Chapter 5

### Discussion

#### 5.1 Introduction.

This discussion builds on the ideas I had before I began the fieldwork, and attempts to make sense of the results by integrating additional literature relating to the themes identified in the results. I will begin with the idea of sense of place and place attachment in relation to community gardens, to establish the significance of 'place'. I will then discuss the importance of nature, as the environment that the community gardens are located in, to build up a picture of why nature is important for the well-being consequences of community gardens. Next, I will discuss further reading and thoughts on contemplative, educational, and social aspects that I have developed since the fieldwork. Finally, I will discuss some relevant literature on the relationship between nature, resilience and disasters.

#### 5.2 Sense of Place and Place Attachment

How do some places become more 'special' than others? To the outsider two places might look remarkably similar in physical appearance, and unremarkable in their ability to be labelled 'special.' Two people can experience the same place in different ways. For example, a patch of ground by a river may look just like that, but to someone who has camped there, the same piece of grass evokes all the memories of that experience of creating and living in a temporary shelter. Sense of place involves a personal interpretation of the physical environment, along with an emotional response to that environment (Altman & Low, 1992). We couch our perceptions of places in "a language of sentiment, value, and other personal meanings" (Tuan, 1977, as cited in Altman & Low, 1992, p. 262). The people and their interactions, the activities, and the energy created within the physical environment make a place what it is for each person or group of people. Places are socially and physically co-constructed.

Hale et al. (2011) argue that we "need to create places that foster aesthetic experiences that connect individuals to places that support and sustain healthy behaviours" (p. 1854). In the context of community gardens people can "simultaneously create emotional connections to other people and the garden" (Hale et al., 2011, p. 1854), reflecting an emotional sense of place. Several of the participants in my study expressed sense of place or place attachment in many ways. They had



positive feelings about the garden they were involved with, and referred to “the spirit of the place,” or to the garden as “a special place,” and “it’s just a great feeling place, you know, just lovely, it feels good to be here.”

Localised natures are unique to each individual experience in that, particularly in our early years, they help to produce a “sense of home, belonging, attachment and familiarity” (McNaghten and Urry, 1998, as cited in Franklin, 2002, p. 185), which becomes part of our self-identity. Community gardens may be able to reproduce some of that familiarity, or connect people with past memories, such as gardening involvement as a child, or the memory of learning from parents who ‘always had a garden’, or with more recent memories of times and events before the Canterbury earthquakes. One garden in my study was referred to by a participant as a ‘memory garden’, as they had made raised brick planter beds and other creations, from earthquake damaged chimneys in the surrounding area. Mosaic creations were seen as a symbol of ‘putting lives back together’. These examples of creative expression make this garden a place that could connect with the local community through an emotional sense of place.

My results have shown that people experience different senses of place relationships within the community garden environment. They experience relationships with nature, relationships with others and relationships with self (through contemplation, creativity and education). These relationships (environment, society and individual) are intertwined, but each individual through their stories and photographs, displayed different senses of the relationship and different degrees of emphasis.

### **5.3 The Natural Environment**

Community gardens provide access to ‘nearby nature’ in an urban setting and make nature accessible to all (Kaplan & Kaplan, 1989). To an observer looking in, the physical aspects of a community garden are the most obvious, including the growing of food, the physical work that participants are engaging in, and the garden itself, within the context of a natural environment. These topics have been covered in the initial literature review.

Growing evidence supports the view that “exposure and access to natural environments can have a wide range of positive impacts on human well-being” (Burns 1998; Lundberg 1998a; Lundberg 1998b; Pretty et.al. 2004; Parr 2005; Townsend 2006; Ulrich & Parsons 1992, all cited in Atkinson, Fuller, & Painter, 2012, p. 141). Reasons cited include the claim that nature affords opportunities for both physical and psychological escape from daily life, and “opportunities for both solitude and social activity”, can provide “a way of shaping collective and social identity” (Conradson, 2005a, as cited in

Atkinson et al., 2012, p. 141). Also significant is the opportunity to engage in physical activity and exercise within these natural spaces (Collins & Kearns, 2007, as cited in Atkinson et al., 2012, p. 141).

Community gardens are embodied in nature, so everything that happens there, is also contextualised as an interaction with nature. Less obvious, is why humans have such a deep need for a connection with nature, and what it is about contact with nature that makes such a difference to well-being. This section reviews literature on the connection with nature, and some theories as to why contact with nature is so important for well-being.

### **5.3.1 Biophilia**

In 1984, the biologist E.O. Wilson linked the connection between well-being and nature to evolution, through his notion of 'biophilia'. Wilson's biophilia hypothesis is about much more than just enjoying nature. Wilson suggests humans have an inherent need for a relationship with nature, that we are genetically programmed to respond to environmental cues, and our physical and mental well-being, human identity and personal fulfilment are dependent on this contact with nature (Kellert, 2008; Kellert & Wilson, 1993). This inherent need may also be because we as humans are part of nature, or "that all of life on earth is kin," as suggested by (Reece Hardy et.al. 2009, as cited in Tidball, 2012, p. 5).

Even though we now live largely in an urban world, the human mind and body largely evolved and developed in "a sensory challenging and diverse natural environment" (Kellert, 2008, p. 462). By choosing to live close to particular landscapes, humans were provided with conditions which offered greater chances of survival. For example, a body of water provided drinking water, defence from natural enemies and also encouraged other animals and plant life needed for food (Kahn Jr, 1997). Even negative responses to nature, such as fear of poisonous snakes, are a response to an evolutionary need for security and to ensure continuing survival (Kellert & Wilson, 1993).

We evolved within natural environments and are tuned for survival within them, but we have surrounded ourselves with our own creations "built of inert materials" (Lewis and Sturgill, 1979, as cited in Tidball, 2012, p.5 ). This suggests that we may be living in a way which goes against our natural instincts. This feeling was echoed by one of my respondents, who liked to go to the community garden in his lunch time to feel like a real person again "it just helps me to reconnect and feel like I'm [pause] real again, real, a real person and not a part of a computerised machine". He found the need to leave his computer, which, while opening the possibilities of virtual association with the wider world can also isolate us while connecting us (Clark & Clark, 2009). He needed to seek a more embodied and 'real' connection with nature.

Other findings support “favorable responses to natural environments relative to ‘built’ environments, and restored cognitive functioning following immersion in nature” (Joye, 2007, as cited in Howell et al., 2011, p. 166). This supports the idea of making nature more available and accessible in urban areas, such as community gardens.

Wilson (1984, as cited in Kellert and Wilson, 1993) also recognised a connection between nature and psychological health, when he said “the biophilia notion, therefore, powerfully asserts that much of the human search for a coherent and fulfilling existence is intimately dependent upon our relationship to nature” (p.43). With that in mind, Iltis (1980 as cited in Kellert and Wilson, 1993) suggested that our mental and physical well-being may be a more compelling reason for our desire to conserve nature, than purely material benefits. This may also justify the sustainability ethic, which is a fundamental theme in community gardening.

The well-being effects of nature are so important that people in situations such as hospitals or prisons where they are unable to access ‘real’ nature can gain some benefits from being exposed to ‘fake nature’ such as virtual nature, or looking at nature through a window (Kahn Jr, 1997; Lubick, 2013). Studies have shown that the stress levels and blood pressure levels of patients waiting for surgery or dentistry, are lowered if the patients are shown pictures of natural landscapes (Coss, 1990, summarized in Ulrich, 1993; Heerwagen, 1990, as cited in Kahn Jr, 1997). Although real nature is still preferable - since virtual reality cannot yet provide sunlight, nor the sensory experience of being in real nature - this does demonstrate the importance of a nature connection, and that our nervous system and physiology have been designed to respond to nature (Lubick, 2013). However, not everyone is aware of this affinity for nature, nor acts upon it, and people react differently due to varying circumstances (Kellert, 1997a, as cited in Tidball, 2012).

At the other end of the scale from biophilia, is biophobia (Orr, 1993). Biophobic people actively avoid nature as they feel uncomfortable in it, for example not going into rivers to avoid the living things within them. Orr argued that biophobia is increasing amongst people raised and living in increasingly urbanised and virtual worlds. It is disguised beneath what is termed ‘progress.’ According to Orr, technology has provided us with choices that were not previously available, such as genetic engineering and nanotechnologies, and humans have the power to reshape the world in ways never before imaginable. “If we are to preserve a world in which biophilia can be expressed and can flourish, we will have to decide to make such a world” (Orr, 1993, p. 417).

A sceptical response to the biophilia hypothesis as being a biologically based human need to affiliate with nature, is that it could be seen as an elitist theory, in that those living in poor urban areas cannot access nature in the same way as the more materially advantaged (Kellert & Wilson, 1993). This response underlines the need to make nature *more* available in urban areas, for example, in

community gardens, which are a part of nature that is accessible to all and they aim to be inclusive, regardless of age, gender, dis/ability, or socio-economic status. There is no need to go into the wilderness to experience nature, for as Crouch (2013) says “Gardening offers a deep and complex relationship with the world, an awareness and feeling with nature, environment and place...[a] small plot of ground where we work - and play - can feel like ‘the wild’, like living with nature” (pp. 25-26).

Based on Wilson’s biophilia notion, that the human affinity for nature is partly of genetic origin because we evolved in a natural world, it makes sense that childhood is an important time for initial contact with nature, as “the fundamental development of any biologically rooted tendency is likely to occur during childhood” (Kellert, c.2005, p. 64). Louv (2010), believes that today’s children are not experiencing enough direct contact with nature, and he coined the phrase ‘nature deficit disorder’ to describe this phenomenon. He says the past two to three decades of children have increasingly less experience of natural play or the free-range childhood of climbing trees, making rafts at the local creek, or exploring the woods looking for bugs. Security concerns and time pressures mean it is unusual for children to even walk to school, and fear of retribution in the case of injury, have placed restrictions on many outdoor activities, which were once seen as commonplace.

Virtual experiences have replaced ‘hands on’ experiences, and typically children know more about the Amazon rainforest, through technology, than they do about their own backyards. Few have had, for example, the sensory experience of lying in a field, feeling the wind and observing cloud formation patterns (Louv, 2010), resulting in loss of natural ability such as learning to be able to detect wind direction experientially. Studies have shown that children who play in natural green environments play longer and in a more diverse way than in playgrounds with fixed play equipment (Hart, 1979; Moore, 1986, 1989; Kirkby, 1989; Titman, 1994; Heerwagen and Orians, 2002; Jansson and Persson, 2010, all cited in Laaksoharju, Rappe, & Kaivola, 2012).

As a sub-set of children’s encounters with natural environments, gardening, per se, has been shown to be beneficial to children, as a diverse learning environment and in improving social aspects, such as “positive attitudes towards school and community, a sense of ownership and pride, and better learning outcomes”(Alexander et.al, 1995; Moore, 1995; Waliczek et.al., 2001, 2003; Rahm, 2002; Blair, 2009; Passey et.al., 2010 all cited in Laaksoharju et al., 2012, p. 195). Studies have emphasised the influence of the garden in “enabling a close relationship with nature, thereby improving environment-friendly attitudes among children and promoting responsible behavior for a sustainable future” (Francis, 1995; Lohr and Pearson-Mims, 2005; Chawla, 2007; Gross and Lane, 2007, all cited in Laaksoharju et al., 2012, p. 195). Other positives include “improved self-esteem and life skills” (Morgan et.al.2009, Robinson and Zajicek, 2005, and Waliczek et.al. 2000 all cited in Laaksoharju et al., 2012, p. 195).

As an example of the benefits of children being involved in gardening, the 'Garden-to-Table' schools programme in New Zealand is an effort to reconnect children from low decile schools in Auckland with nature and the origins of food (TVNZ, 2012), through learning to grow and cook vegetables that they had previously never heard of or tasted, such as spring onions, and pumpkin. Prior to this, many of these children only recognised potatoes as 'chips'<sup>13</sup>, they did not know that potatoes grew in the ground. This experimental classroom teaches them skills they would be learning in a normal classroom, such as measuring. If, for example, they are cutting a pie, they are dividing. If they are working in the garden they are also potentially learning about the weather, life cycles of insects, and composting (TVNZ, 2012). The children enjoy being outside and there is no vandalism in the garden, as the local community recognises it as something worthwhile the children are doing (TVNZ, 2012).

A community garden is a local place where children can play or participate in and learn about gardening, and they provide a place for urban children to have some contact with nature. My results have shown that community gardens do have a place for children, some have developed play areas for them, some involve them in gardening, and some schools teach the science involved in compost making. Although community gardening involves nature contact, it goes beyond contact, as it involves an active engagement along with other community members, in restoring nature.

### **5.3.2 Embodiment with Nature**

The previous section has mentioned arguments that virtual experiences have reduced nature contact. However, Franklin (2002) argues that, recently, people's relationship with the sensory aspects of nature has shifted. He associates this with a movement from 'modernity' which valued rationality and "a mental understanding of nature over and above an embodied, sensual or spiritual understanding" (Franklin, 2002, p. 181), to post-modernity, which places greater value on the body and sensuality. In traditional societies, nature was experienced multisensorily through hunting and gathering and agricultural practices, and orally through story-telling and listening skills. Modernity emphasised the visual over other senses, which became "entrenched in the scientific practice of disciplined observation" (Mcnaghten and Urry, 1998, cited in Franklin, 2002, p. 186), undermining any scientific claims based on experience. Even though there is still a strong emphasis on the visual in post-modernity, there is more acknowledgement that nature has become embodied and is not only something to be viewed. We can discover an awareness of nature by feeling ourselves becoming immersed through "a tactile engagement with the land and what it grows" (Crouch, 2013, p. 25). We now approach it consciously as something we are part of rather than as separate from (even though our social and economic structures may still manifest a separation). Crouch (2013, p. 26), suggested that we are all part of nature and that "our relationship may be in nature, rather than in relation to

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<sup>13</sup> Potatoes sliced into finger shapes and deep fried, usually eaten hot, and often eaten with fried fish. A typical New Zealand takeaway is 'fish and chips'.

or with it” (Crouch, 2013, p. 25). In a way, this could be seen as reclaiming some aspects of the traditional perspective, where nature was experienced multisensorily.

There are numerous metaphors used in everyday life that relate to gardening. For example, we talk of being ‘grounded’ when we are well-balanced, and genealogists talk of ‘going back to their roots’ when finding information about ancestors, or we talk of ‘putting down roots’ when we settle into to a new house or community. We describe someone as ‘blooming’ when they are looking really well. Our everyday language reflects embodiment with nature and also links to biophilia, through Kellert (1993)’s symbolic value, which is the use of nature in communication, through metaphors and expressive thought.

Watching a movie about someone gardening may show us visual detail but it does not allow us to actually feel the dirt on our hands, the smell of fresh compost, or the taste of fresh produce. One of my participants mentioned that she loved getting her hands in the dirt and that weeding calmed her. Technology gives us virtual experiences, but it is a detached, limited sensory experience, without the sense of embodiment with our surroundings. A relationship with embodied nature, involves all the senses, “its sounds, its smells, its tastes, its textures and its colours and shapes” (McNaghten and Urry, 1998 cited in Franklin, 2002, p. 186). As shown in my results, many of the photographs taken, and sentiments expressed by the community gardeners in my study, reflected that sensory contact with the garden is a very important part of their enjoyment of it.

Hale et al. (2011) define “the relational nature of aesthetics” as “the most fundamental connection between people and place” (p.1853). Environmental aesthetics looks at people’s evolving responses as they interact with the social and physical environment. How we respond to our surroundings is shaped by our immediate sensory experiences together with our socially or value-driven interpretations, “creating a reciprocal exchange of embedded meaning” (Barrett, Farina, & Barrett, 2009; Foster, 2009; Harries-Jones, 2008; Neves, 2009, as cited in Hale et al., 2011, p. 1854). How we learn, is shaped by our sensory experiences, and related aesthetic values (Neves, 2009, as cited in Hale et al., 2011). In gardens, we can emotionally connect with other people and the garden at the same time (Hale et al., 2011).

Bhatti et al. (2009) characterise gardens as intimate places in everyday life and mention the “prosaic pleasures and enchanting encounters that are revealed through multi-sensorial engagements and emotional attachments within the social/natural world” (p.61). Enchantment, in this context, means unexpected “encounters that temporarily transform our connection with the social/natural world” (p. 63). They write about household gardens, however these findings about sensory awareness are equally applicable to a community garden. An example of enchantment in the community garden could be encountering the beauty of a flower that was not in bloom last week, or the taste of fresh



fruit, such as Graham's photograph and luscious description of cherries. It could also be witnessing someone achieving a goal they did not think was possible, or an interaction which has a special feeling about it, such as a joyful social occasion, as when Luke described the pizza party and the pleasure he got from the smell of the smoke, the taste of the beer, the feel of the sun and sight of the students making their pizzas and enjoying themselves, all within the setting of the community garden. "A particular moment and character of encounter with our surroundings can prompt vivid, intense feelings. Smells of earth and leaves can be the active templates of feeling and relating, new awareness and knowing" (Crouch, 2013, p. 26). The everyday tasks in gardening are "sensuous and embodied experiences explored through the knowledge of haptic<sup>14</sup> perception; 'cultivation' in the sense of taking care of the garden, as well as caring for the self and others; and emotional attachments invoking body/place memories, especially of childhood gardens" (Bhatti et al., 2009, p. 61)

## **5.4 Contemplative aspects of community gardening**

Sensory contact with nature is also associated with contemplation, and my results have shown that community gardening can provide a place that is conducive to contemplation. This contemplative (which can also be referred to as 'spiritual') experience, can be perceived in many different ways. Some people like to view themselves as spiritual, but not religious, and a common perception today is that the term religion conveys an institutional connotation whereas to be spiritual, has a more personal and subjective connotation (Roof, 1993; Zinnbauer, 1997, as cited in Taylor, 2001). Spirituality does not have to oppose religious traditions but can also be viewed as a quest to find the inner depth or meaning of these traditions (Taylor, 2001).

In a discussion of a documentary 'Gardening with Soul' on 'Saturday Morning' with Kim Hill (Radio New Zealand National, 2013), Sister Loyola, the head gardener at the Home of Compassion in Island Bay in Wellington, suggested that people may be looking for a spiritual mode of connection back to something basic, nature and the cycles of life, rather than engaging with traditional religion. She said that gardening could be a portal to religion because it is about ongoing love and life evolving. Nurturing and caring of people as well as plants, she claimed, happens in community gardens. In my study, community garden participants Luke and Ruby both alluded to the connection between the cycles of nature and the cycles of human life, as being a natural way to live.

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<sup>14</sup> Relating to the sense of touch

One philosophy that places humans equally with all life on earth, is deep ecology, which “derives its essence” from many traditions and philosophies including Christian and Eastern spiritual traditions, feminism, and the “pastoral/naturalist literary tradition” (Devall & Sessions, 1985, p. 80). The term ‘deep ecology’ was coined by Arne Ness, in his attempt to describe “the deeper more spiritual approach to Nature exemplified in the writings of Aldo Leopold and Rachel Carson. He thought that this deeper approach resulted from a more sensitive openness to ourselves and nonhuman life around us” (Devall & Sessions, 1985, p. 65). Deep ecology contrasts with the worldview that regards humans as dominant, separate from and superior to nature (Devall & Sessions, 1985).

Nature is becoming a spiritual/religious focus for many people who are finding “ultimate meaning and transformative power in nature” (Taylor, 2001, p. 175). There are instances of people experiencing nature spirituality in wilderness areas such as mountains (Taylor, 2001), and in natural areas closer to home. There are also gardeners who report their relationship with nature as “one that involve[s] caring, committed, mutual, and intimate connections, not only with other people, but also with nature and past memories” (Infantino, 2004, as cited in Okvat and Zautra, 2014, p.82 ). These people have a connectedness to nature that seems to suggest that ‘something bigger than themselves’, sustains them and helps them to make sense of life.

The following well-known verse encapsulates this claimed connection between spirituality and the sensory/tactile experience of gardening.

*The kiss of the sun for pardon,  
The song of the birds for mirth,  
One is nearer God's Heart in the Garden  
Than anywhere else on earth.*  
(Dorothy Frances Gurney 1858-1932.)

“To be spiritual is to be constantly amazed” (Levin, as cited in Louv, 2010, p. 291). This echoes Bhatti et al.’s (2009) description of ‘enchantment’ and embodiment with nature. The tranquil and peaceful feeling of being enclosed by nature, can encourage contemplation, meditation and spiritual awareness, and have a restorative effect through personal renewal. Nature connectedness is defined as “individuals’ experiential sense of oneness with the natural world” Mayer & Frantz (2004, p.504, as cited in Howell et al. 2011, p. 166), and “involves a sense of meaningful involvement in something larger than oneself” (Howell et al., 2011, p. 166).

One respondent in my study spoke of needing respite from his office and seeking peace and reconnection during his lunch break. He picked his (salad) lunch, while walking round the community garden. He described it as “bit of a meditative eating stroll”, where he is aware of his surroundings and senses and his need for a connection with something deeper in nature. He felt nurtured and enclosed within a really “wholesome space.” Experiencing the world using all our senses can, in this way, create a more balanced way of living. Thrift 1999, as cited in Franklin (2002), suggested that, along with faster technologies giving the image of the world as speeding up, there is also a desire to slow down and to “value the present moment” (p.191). Another gardener described looking after the young plants in the greenhouse as meditative, as the process forces him to slow down, to be conscious of the needs of the plants, and be gentle with watering. During this process, he became less stressed in himself, and left the garden feeling much better. This is another example of healing oneself while nurturing the plants.

Interaction with nature, while caring for the garden, may make gardening conducive to spiritual experience (Unruh & Hutchinson, 2011). In their study Unruh and Hutchinson (2011) found participants whose enjoyment often related to feelings of connectedness with nature, and of an awareness of something outside themselves. “The garden is a metaphor for life” (Unruh & Hutchinson, 2011, p. 570) , as it mirrors our own life cycle of birth, growth and death, through the continual round of seasons. When gardening, there is an awareness of focusing on the present, but with a sense of connection to the past and an eye to the future. The future of a plant depends on the way it is cared for and nurtured now (Burbank, 1922; Unruh & Hutchinson, 2011). The same applies to human life.

As nature connectedness “involves a sense of meaningful involvement in something larger than oneself, it may relate most strongly to eudaimonic aspects of well-being” (Howell et al., 2011, p. 166).

A eudaimonic view of well-being conceptualizes well-being in terms of the cultivation of personal strengths and contribution to the greater good (Aristotle, trans.2000), acting in accordance with one’s inner nature and deeply held values (Waterman 1993), the realization of one’s true potential (Ryff and Keyes 1995), and the experience of purpose or meaning in life (Ryff 1989, as cited in McMahan & Estes, 2011).

Some of the participants in my study described the community garden as a peaceful, tranquil place, a place where they can reconnect, and “feel like a real person again.” Unruh and Hutchinson (2011) found that those who perceived the garden as a spiritual place either expressed this as feeling close to ‘God’, or in a secular way, where they were aware of their connectedness with nature.

Memories of the past can live on in plant cuttings from special people, a tangible and also a spiritual connection between giver and receiver, by “building part of what you were in someone else’s space”(Unruh & Hutchinson, 2011, p. 570). Gardens are a way of enabling people to live with and express grief (Unruh & Hutchinson, 2011) and, as shown in my data, community gardens, particularly in Christchurch post-earthquake, have this healing component, providing a space where people can grieve for what they have lost while simultaneously creating something positive. A garden can reflect the inner person, can give the opportunity to create and be an expression of self through connection with nature (Unruh & Hutchinson, 2011). If people have lost this ability because their own gardens have been destroyed, a community garden can give someone a chance to recreate this form of expression.

We connect with our immediate surroundings physically, emotionally, socially and cognitively through sensory engagement, but we often do this without thinking much about these connections (Clark & Clark, 2009). However, when we are mindful of our surroundings we are more able to see the beauty in the smallest of things, or even the most ordinary of things, as reflected in Bhatti et al. (2009)’s moments of enchantment. In their study on associations between nature connectedness and mindfulness, Howell et al. (2011) found that “higher degrees of connectedness to nature were associated with greater well-being (psychological, social and emotional) and greater mindfulness” (p. 169).

Mindfulness is one of a number of practices which have developed, which “fix attention on the body in the present” (Franklin, 2002, p. 191), and “expand the size of consciousness, allowing each moment to be more carefully attended to and invested with more of its context” (Thrift, 1999, cited in Franklin, 2002, p. 192). Mindfulness is also referred to as living in the moment, and actively attending to the present (Dixit, 2013).

Mindful people are also open to new and sometimes unexpected information, and to different points of view. As they are free of entrenched mind-sets they can develop creative insights and possible solutions, they can adapt to context and focus on the process of living rather than the goals of life. An intuitive experience of the world allows us to see new insights and possibilities as opposed to purely rational ideas which can leave us stuck in old mind-sets with no room to move, consequently missing much of what is really there in the present (Langer, 1991). There are community gardeners who are open to trying new ways of doing things, as shown in my results. One example of this was Matthew who was impressed with Barbara’s attitude. He told me of a comment she made

*“when I first met her [Barbara], one of her introductory comments was she said, ‘the only thing I don’t want to hear around here from anybody ever, is ‘you can’t.’ It was a very [pause], I’ve never heard anyone say it like that before and I was very impressed, it just showed a strong openness towards*

*trying things, you don't have to succeed, you have to willing to give it a go, the worst thing that can happen is that it can go wrong, never mind, give it another go, try something else... (Matthew).*

Matthew himself said he appreciated meeting people with different ideas, people with different social interests than he meets on a daily basis, and “spreading my social wings.” He was also interested in learning new ways of doing things “ I’m interested in the different ways that people look at things- learning things fascinates me... part of the reason I’ve been always interested in this group has been exposure to people I wouldn’t normally meet.”

Another example was Dorothy, who appreciated the way that creative and innovative use is made of recycled things “that a lot of people would call junk” when she said, “I like that about the park [garden], we can be innovative, think outside the square, we are all different, we have all got different talents and skills.” Most of the gardens have participants who are able to find interesting and practical uses for recycled things, as opposed to buying conventional, ready-made items.

Joan talked of the plants she introduced to the immigrants that came to the garden. Some plants could be used as substitutes for ingredients that they were used to in their home countries, such as the French sorrel she introduced to the Bhutanese people, because one of the Indian people used it in their pickles or chutneys.

## **5.5 Cognitive and emotional aspects**

Much of the work that I read on cognitive and emotional aspects of community gardening was covered in the initial literature review. The benefits ranged from practical, such as learning basic gardening skills, composting and pruning, to intangible, such as a sense of achievement and self-reliance from growing one’s own food, social connectedness, and experiencing the gardens as places of tranquility (Kingsley et.al., 2009).

An aspect that was not covered was leadership, and in the light of some of my findings, it seems important to consider it now. In a study examining gender roles and relationships in community gardens, Parry et al. (2005) found that many of the gardens had been initiated by women and many of these women were also the leaders of the gardens. However, there was some discomfort amongst many of the female respondents with this title, and they preferred to be thought of as co-leaders along with some of the other volunteers. This was also evident in my results, where two of the women who were considered by the other gardeners to be leaders, saw themselves as just ‘one of the others’. In Parry et.al.’s study, women also showed flexibility in recognising others’ time constraints and ability to contribute (Parry et al., 2005). All participants were considered relatively

equal in importance in terms of doing the garden tasks, even though in practice men tended to do the heavy work (Parry et al., 2005). The community garden environment was a place where women felt free and able to take on new roles, with the possibility of developing a new identity for themselves within the community and also well positioned to be able to make a difference in the community. The experience was empowering for them in contrast to the traditional roles of housewives and mothers (Parry et al., 2005).

Another point is the importance of the voluntary environment for encouraging people's personal growth. Glover, Shinew, et al. (2005) pointed out that "a certain irony exists in pointing to voluntary associations as a source of individual autonomy" (p.77). However an important aspect of learning in leisure-oriented voluntary associations is that people have more freedom to practice skills than may be available to them in a more formal situation. They can participate in collective decision making and through self-determined action they learn new skills and become more confident, gaining a sense that their voice is important, and that they could make a difference (Glover, Shinew, et al., 2005). This can be empowering for them.

Learning can happen if members experience encouragement not judgement. In the Documentary 'Gardening with Soul', Sister Loyola indicated that she believed in focusing on what people can do not what they cannot do. A positive attitude such as Sister Loyola's, can also encourage others' personal growth (Feast, 2013), as people are more likely to feel safe to try new things if they are not going to be judged or ridiculed, and consequently achieve more. In a similar sentiment, Barbara, one of my participants said "people can do whatever they like in the garden as long as they are respectful of the garden, and respectful of the others that work within the garden", and if they want to try something that some people may think is a "stupid idea" they should go ahead and do it and whatever the result "it's all going to be a learning curve at the end of the day." She showed the importance of respecting people and allowing them the space to try their ideas, even if others may not immediately appreciate the value of them.

The mental health and well-being aspects of this learning can be seen in participants reporting greater value and purpose to their lives, improved awareness of self-worth, and potential to contribute to society. They also report a sense of accomplishment such as harvesting vegetables they have grown themselves, helping to create a place where people enjoy themselves and feel comfortable, achievement of personal goals, and increased optimism and interest in other aspects of their lives (Cleghorn, 2011). The importance of the values of treating everyone's views equally and having a supportive approach towards people's freedom to try new ways of doing things, were echoed by many of the respondents in my study.



Another potential area of personal growth is learning how to deal with conflict. There was evidence of dealing with conflict, sometimes more successfully than others. As with any group of people working together, division and conflict can occur if people do not have the same goals or if disagreements on how to go about a particular project are unresolved (Parry et al., 2005).

A paradox of gardening also relating to the voluntary aspect, is the merging of work and leisure. Gardening has been described as a “labour of love” (Longhurst, 2006, p. 587), and the desire to stroll around the garden experiencing the sensuous pleasures is often mixed with the desire to pull out a weed or trim a bush (Longhurst, 2006). Crouch also alludes to the concept of work when he says “it is in the variety and diversity of acts – clearing, dragging, cutting and tending – where much sheer hard work holds the potential for a deep and shifting relationship” (Crouch, 2013, p. 26). Yet an attraction of community gardening as expressed by some of my participants, is the voluntary aspect, with no burden of requirement for being there. One participant in my study indicated he liked to come to the community garden because he ‘didn’t have to’, and compared it to mowing the lawns at home, for which he felt a sense of requirement. Another respondent enjoyed the community garden as she did not want to feel ‘tied’ to her home garden.

These obligatory ‘at home’ examples are examples of extrinsic motivation, of doing the task because of some external pressure (Ryan & Deci, 2000). Another explanation could be that in a community garden one does not have the entire responsibility for the garden, which can allow more freedom of choice whereas, at home, one may have the sole responsibility for the task as no one else may feel obliged to do it.

Conversely, people who are intrinsically motivated are doing something because they want to because of some property of the activity, not because they have to. They are not doing the activity specifically for external reward (Ryan & Deci, 2000). Positive feedback can encourage intrinsic motivation, and satisfaction can also be gained from doing the job competently. If someone is given the freedom to try a different way of doing a task, or engages in self-directed learning rather than being told ‘it must be done this way’, they may feel more motivated to have a go. “[F]or a high level of intrinsic motivation people must experience satisfaction of the needs for both competence and autonomy” (Ryan & Deci, 2000, p. 58).

## 5.6 Social aspects of community gardening

Both the literature and my data support the idea that one of the main motives for participating in a community garden is the social contact with other gardeners. Social interactions are important, and may be even more important than the activity itself (Bishop & Hoggett, 1986). One of my participants said that for her the garden was more about relationships and people than the vegetables, a sentiment that was echoed in others' comments. Building relationships is important, some friendships continue outside of the garden environment, and reciprocity and trust can develop between members (Chavis, 1997; Glover, 2003a, as cited in Glover et al., 2005). In a community garden, it appears that people can potentially be nurtured and cared for in a similar way as the plants, as caring, sharing and respect for the garden and for each other, are important guiding principles.

An interesting question is what does 'community' mean in relation to community gardens? As Pudup (2008) discovered, it is not always clear whether community gardens are run for the community, by the community, or that they just happen to be located in certain communities. She suggested using the term 'organised garden project' as it was easier to define than community garden, which does have so many meanings. Kingsley & Townsend (2006, as cited in Firth et al. 2011, p. 557) suggested that "perception of personal connectedness" is now a more appropriate way to define community than by place. Moseley 2003, as cited in Firth et al. (2011) argues "communities are socially constructed through people sharing and interacting with a common purpose" (p.557). The same space can be used for other purposes and by other people, and participants do not necessarily come from the surrounding area.

As an example of this, not all participants at Packe Street Community Garden, in St Albans, live in the area (this is partly due to temporary relocation because of the earthquakes), and as the garden is located within a public park, it is the children's playground and is also used for community social occasions such as the annual Christmas Carol service. In circumstances such as after the Canterbury earthquakes, my data show that the community gardens in the areas most severely affected show evidence of providing social support for the wider community, as more people have come to the gardens for company, a chat and a cup of tea since the earthquakes.

## 5.7 Post-Earthquake context

As mentioned above, the social contact has become even more important since the earthquakes, as people are seeking company, and support networks, and as my results show, a lot more people are coming to the gardens at least for “a cup of tea and a natter” and Joan said, “I think more people are coming to enjoy the afternoon tea and just be, ah, supportive to each other”. However, I have wondered, and pondered the question, why would people turn to nature after the earthquake, when the earthquake was such a destructive natural force and had such a destructive effect on nature? One possible answer to this question is that if we are a part of nature, as has been suggested by others including Crouch (2013), Tidball (2014) and Reece Hardy et.al. (2009, as cited in Tidball, 2014), then the environment is not just a setting for healing, but “a partner in the process” (Berger and McLeod, 2006, as cited in Tidball, 2014, p. 55).

Tidball (2014) sought an explanation for why people are attracted to greening after a disaster. He finds an answer in “cultural–evolutionary arguments about humans’ affinity to nature (‘biophilia’), and in the work of environmental psychologists demonstrating the healing power of nature” (p. 53). Tidball (2014) suggested that “disasters provide a unique view of a society’s capacity for resistance or resilience in the face of disruption” (p. 56). Tidball also noted that humans (as individuals and communities), when faced with a disaster often seek engagement with nature as a way of coping and demonstrating resilience. Despite the physical destruction of the area, and the psychological trauma to individuals and communities associated with disasters, a ‘green response’ such as forming a community garden is often an immediate response to a crisis (Tidball, 2014). Apart from the need for planting food for survival, it may seem counterintuitive that simple acts such as gardening, or tree planting would be a priority (Tidball, 2014). However, there are many examples of people who have been “stunned by a crisis, benefitting from the therapeutic qualities of nature contact to ease trauma and to aid the process of recovery” (Miavitz 1998; Hewson, 2001, as cited in Tidball, 2014, p. 54). One of the respondents in my study said “it helps to give people purpose, you know, while you’re waiting, waiting, waiting for something to happen, it’s something you can be doing, together...just creating something,” and there are numerous other examples included in my findings of the healing aspects of a community garden in a severely earthquake affected suburb.

Helphand alludes to healing through gardening when he says “there is a parallel between the garden as a place for the growth of plants for food and the garden as a place of emotional sustenance” (Helphand, 1997, p. 106). His focus is not on disasters, but on what he calls ‘defiant gardens’, and he cites examples of people finding solace in gardening when dealing with other extremely traumatic situations, such as war and imprisonment. One example is Nelson Mandela in his book, *Long Walk to Freedom*, where Mandela talks about a garden he nurtured during his long years in prison. “A garden

was one of the few things in prison that one could control. To plant a seed, watch it grow, to tend it then harvest it, offered a simple but enduring satisfaction. The sense of being the custodian of this small patch of earth offered a small taste of freedom” (Mandela, 1994 as cited in Helphand, 1997, p. 106). Mandela gained a sense of freedom through both the opportunity to nurture his garden, and to have some control or custody over an aspect of his life.

This is an interesting paradox - the idea of freedom and control- in the one sentence, as above. The concept of control has often been given as a reason why people garden. People who have been through traumatic situations, such as people who have been severely affected by the Canterbury earthquakes and are still suffering the effects, may find the local community garden a healing place. If they are experiencing loss of control in their personal lives, they may seek a space where they can achieve something and have some element of control over their external environment, as Mandela did with his garden.

Conversely, many people have found gardening to be a source of freedom, and this also relates to the idea of leisure being about choice, and of a voluntary nature. Participation in community gardens can allow people the freedom to try new ideas, in a supportive environment. However, that freedom often involves controlling nature, such as trimming trees or training plants, so people appear to be gaining freedom from controlling something else.

Herein lies another paradox. Gardens are paradoxical spaces in that they are about nurturing nature on the one hand and improving or taming nature on the other. There is a fine line between control and nurturing. For example, when we stake up plants, is it to encourage them to grow in a certain way, or is it to protect them from breaking in the wind? In a similar way, caring for a child is a balancing act between allowing freedom and exerting some control to ensure the child is safe and secure.

Gardening has had an element of control ever since colonial times. When the first settlers arrived in New Zealand, they began a process of slashing, burning and ‘taming’ the land and creating English gardens similar to ‘home’ so that they felt more comfortable in their new environment. Today, many people create and enjoy ‘manicured’ household gardens, and many try to keep up with the latest trends in gardening where their “identity is expressed through consumption” (Longhurst, 2006, p. 587). Community gardens are about nurturing, but they are not ‘manicured’, they are more ‘natural’, and as one of my participants said, “there is an excuse for every weed in the park” (Joan). This suggests that in community gardens, acceptance of the way things are and seeing a use for them is more important than control and outward appearances.

Francis (1987a, as cited in Kaplan & Kaplan, 1989) concluded that the garden is an aspect of nature that people can shape and control in a largely uncontrollable environment. But, it seems the control of nature is an illusion. Some plants will not thrive, seeds will sprout in unexpected places, droughts or floods will destroy. The Canterbury earthquakes demonstrated this, and now community gardens can be experienced as a place to heal after the destruction of many homes and gardens. The growth of nature is actually helping people heal from the destructiveness of nature itself.

Tidball (2014) thinks we go back to our natural instincts when confronted with a catastrophe. Wilson and others argue (Tidball, 2014), that during more stable times, humans' affinity for nature is expressed to varying degrees but often at a subconscious level. This suggests to me that we often take nature for granted until it is threatened. However, as Tidball (2014) says, in post-disaster contexts, human-nature interactions become more conscious and immediate. This could be another explanation as to why we seek the comfort of nature after a disaster.

*Humans may respond to feeling threatened or a sense of loss by seeking physical and emotional affiliation with other living organisms, and in so doing, may aid themselves, as well as other parts of the system, in recovery. Should this urgent biophilic response also include individuals working collectively to enhance their local environment, e.g., through community forestry and community gardening, it may further contribute to recovery of other ecological elements of the larger SES<sup>15</sup>. Although this urgent response does not necessarily take us in the direction that Wilson and others envisioned when proposing biophilia (i.e., furthering the claims of sociobiology or conservation of biodiversity), it may have implications for better understanding human-nature interactions in SES experiencing hazard, disaster, or vulnerability, and the relationship those human-nature interactions have to SES resilience ... (Tidball, 2014, pp. 65-66).*

Similarly, Okvat and Zautra (2014) studied how community gardens could bolster both individual and community resilience post-disaster. They described resilience as "a natural capacity to recover from adversity, sustain well-being, and grow from the experience" (p.73). They reviewed "empirical evidence for the positive effects of various forms of contact with green space" (p.73), and argued that in disaster situations positive input is needed to counteract negativity and uncertainty. Fredrickson et.al.( 2003, as cited in Tidball 2014) also suggested that "finding positive meaning may be the most powerful leverage point for cultivating positive emotions during times of crisis" (p.63). "[E]ngaging in positive activities such as community gardening, is associated with positive emotions and decreased distress in high stress environments" (Okvat & Zautra, 2014, p. 73).

Positive emotions are more commonly reported than negative when looking at urban scenes that include green than those with only built environments (Lohr and Pearson-Mims, 2006, as cited in Tidball, 2012). Other studies have noted the value placed on natural areas immediately after a

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<sup>15</sup> Social-ecological systems

disaster, alluding to the nurturing and protective aspects of cultivation, aspects that are likely to be what people are seeking for healing. Hull (1992) discovered that after a particular hurricane local residents had a more significant awareness of damage to urban forests than to buildings, as “trees symbolize spiritual values, personal memories, reminders of the past, preservation and endurance”(Hull 1992, as cited in Tidball, 2014, p. 64).

In their review of the literature, Okvat and Zautra (2014) also found indications that contact with green space has benefits for cognitive function, particularly in the areas of attention and working memory. The ability to think clearly is necessary for coping in a post disaster area, thus suggesting that community gardening could be beneficial to well-being in situations of adversity (Okvat & Zautra, 2014). I have discussed mindfulness earlier (Dixit, 2008; Franklin, 2002; Langer, 1991) and mindful gardening<sup>16</sup> has been shown by Okvat 2011, as cited in Okvat and Zautra (2014) to assist with coping in difficult situations.

A stress response is initially useful in aiding survival, but can be detrimental if the stress is not lowered. Wichrowski et.al. (2005, as cited in Okvat & Zautra, 2014) studied the effects of horticultural therapy on heart rates of cardiac rehabilitation inpatients. Those who spent time planting in a greenhouse had a significantly reduced heart rate, than those who attended a patient education class. One of the participants in my study, for example, said that he went to community garden one day “feeling really wound up” and by the time he had spent time carefully watering young plants in the greenhouse, he left feeling much better. The implications for disaster areas is that community gardening could help to alleviate stress responses (Sapolsky, 1998; Zautra, 2003, as cited in Okvat & Zautra, 2014).

People typically can feel overwhelmed and experience a sense of helplessness after a disaster. Aspects of community gardening such as self-reliance, decision-making, and the ability to produce food, can facilitate empowerment, which can help to overcome these feelings, and enhance well-being (Okvat & Zautra, 2014). Community gardening is also a way to make a contribution to the wider community after a disaster. This promotes higher self- esteem amongst individuals because of the satisfaction and sense of achievement that community gardeners report from their involvement (Cleghorn, 2011; Glover, Parry, & Shinew, 2005; Okvat & Zautra, 2014).

Social networks and support are critical for resilience in post disaster areas. Green spaces have been shown to encourage a sense of community and developing social support networks, and reducing social isolation (Okvat & Zautra, 2014). Okvat and Zautra suggested that if community gardens were

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<sup>16</sup> non-judgemental awareness in the context of group gardening



already established prior to a disaster, strong social networks would already be in place. This was already evident in the Christchurch suburbs of Lyttelton (<http://www.lyttelton.net.nz/>) and Addington (<http://www.addingtonaction.org.nz/>) that, as mentioned earlier, already had systems in place.

I have referred earlier to gardeners having a sense of connectedness with the natural cycles of life. Ruby, one of my participants said

*Working in a garden connects me to the seasons and patterns of nature... I think observing and interacting with plants, soil and food throughout the season is a wonderful way of being present on the earth and aware of natural cycles.*

Although there is a certain regularity to the seasons, they do vary, for example we may have a warmer than usual winter, a cooler summer, or a sudden storm, which can have an effect on the growing season. From this viewpoint, difficult times, such as those experienced in a post-disaster context could be “re-framed as natural, transitory periods” (Okvat & Zautra, 2014, p. 82). In his recent book, *Inhuman Nature*, Nigel Clark argued that the world will continue to experience disasters as our planet is as volatile today as it has been for many generations. He suggested that “what are catastrophes for soft fleshy creatures like us are for the earth merely minor and mundane readjustments” (Clark, 2011, p. 23). In other words the recent earthquakes, which seem like a ‘once in a lifetime experience’ for us, when viewed in the context of the bigger picture, are part of the earth’s natural and ongoing processes.

*Resilience processes can be found in all systems. With human wounds, inflammation follows quickly after tissue damage as the body responds to remove bacteria, protect the site from further damage, and return the site to homeostasis (Christian et.al. 2006). The red zone<sup>17</sup> is also a wound under repair, except that in the case of disasters, it is on the surface of the earth, an area of land and people inflamed by events that disturb the natural balance of forces that sustain them. Healing is what is called for in the body, and the term is an apt metaphor for what needs to take place on the land and in the community living there. Just as biodiversity can aid in the recovery of an ecosystem facing adversity, complexity of emotional experience can aid in the recovery of people facing disasters. It is vital to both assuage negative emotions and pursue engaging positive experiences. Community gardens offer a positive experience with the chance to reduce suffering and promote healing, while simultaneously strengthening the community and caring for the earth herself, opening a door to growth and transformation on multiple levels (Okvat & Zautra, 2014, p. 86).*

Humans have an affinity for the rest of nature, and they have an urge to express it through creating restorative environments which may “confer resilience across multiple scales” (Tidball, 2012, p.5).

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<sup>17</sup> In the context of this publication K. Tidball & M. Krasny (Eds.), *Greening in the red zone: disaster, resilience and community greening*. New York: Springer, the red zone refers to “areas on the planet, from local to regional in scale, that have been subjected to, and recovering from, a variety of shocks or disturbances.”

Through the expression of perhaps “humanity’s single most powerful idea that we are not at the center of anything ... and also our most humbling idea, that all of life on earth is kin” (Reece Hardy et.al., 2009, as cited in Tidball, 2012, p. 5), we may find important insights into the value of human-nature interactions beyond those that become highly visible in hazard, disaster, and vulnerability contexts (Tidball, 2012).

## **5.8 Summary**

This chapter has taken a deeper look at the themes emerging from the data, by integrating more literature with the results to help make sense of the meanings expressed by the participants, and the well-being consequences of these meanings. I began by discussing sense of place and place attachment, and the different ‘senses of place’ relationships experienced within the community garden environment. On reflection, I am reminded of a point I made in my initial literature review about the colonial settlers creating gardens to establish a sense of place, and to re-establish themselves and their emotional well-being in an unfamiliar environment. In Christchurch, another unfamiliar environment has now presented itself- the post-earthquake environment. Some people may possibly also see these well-being consequences of community gardening as a way to assist them in adapting to this environment.

This was followed by a discussion of the natural environment as a setting for the community gardens, and the idea that contact with nature can positively influence well-being. Questions about why humans have a deep need for a connection with nature, and what it is about contact with nature that influences well-being were discussed. Wilson’s notion of biophilia suggests humans have an innate need to be in nature, because we are part of nature, we are genetically programmed to respond to it, and our well-being, identity and personal fulfilment depend on it (Kellert, 2008; Kellert & Wilson, 1993). Further discussion about embodiment with nature covered the importance of aesthetics and sensory contact with nature for well-being.

I then discussed the contemplative, cognitive and social meanings which were evident in my results, and I looked at how these meanings intertwined with nature within the post-earthquake context. Both the post- earthquake context and nature were discussed in detail, as these are important aspects within the overall context of the research.

The following chapter will summarise the research, and draw final conclusions.

## Chapter 6

### Summary

#### 6.1 Introduction

This research set out to explore and interpret the meaning of community gardens in terms of the sought and experienced well-being of the individuals who participate in them, and the effects of the gardens on associated communities. The methodological approach I used was primarily photo-elicitation as the basis for qualitative interviews. I interviewed participants from five community gardens in the Christchurch/Selwyn area, in Canterbury, New Zealand. The research was undertaken in the aftermath of the devastating Canterbury earthquakes of 2010/2011. This chapter contains a summary of the main themes and my final conclusions. This is followed by my reflections and a discussion of the limitations of my research, and ideas for future research.

While the community gardens that I visited had similarities, when talking to the participants I discovered many meanings, and I could have focused my thesis on many different themes. Lester made an interesting point, which summed up what I had discovered, when he said

*there are different types of people who go to the community gardens, there's those who have high ideals and everything and they're not quite so interested in growing veges, and people like me who actually want to produce something and make good use of the land, and perhaps there's some in between, and um, there are different uses for the people, they fit the gardens to fit their own, what they are interested in (Lester).*

To capture this probable diversity, I wanted to focus on meanings that participants attributed to the gardens, in addition to growing food. The following diagram illustrates the main themes that I discovered, within each of my objectives:

## 6.2 Summary of the main themes



Figure 6.1 Themes within Objectives.

Figure 6.1 shows links between individual, community, well-being, and the community gardens. The main benefits gained by individuals and communities are listed next to the appropriate circle, and then the bottom circle lists the well-being consequences. Individuals gain benefits that enable them to grow as people, such as education, appreciation of life, contact with nature, and social contacts, which have all been described in detail in the previous chapters. Communities also gain these benefits, from the individuals that pass them on, and the results can be seen in the growth of

stronger resilient communities. Well-being for individuals and communities arise from and within these interactions.

However the interactions can also feed back into the community gardens. As people grow, so do the gardens. If individuals and communities value nature and appreciate the well-being benefits that have been described by the participants, this suggests they will want to care for and nurture these gardens.

The themes shown in Figure 6.1 are expanded on below, to highlight the well-being consequences that individuals and communities can experience from community gardens.

### **6.2.1 Themes**

In my results and discussion I have shown that community gardens are places of well-being, and within the context of my study, can be places of healing in the post-earthquake environment. Several themes contribute to the well-being and ultimately to the growth and restoration of individuals, communities and the environment. The following is a summary of the themes that are indicated in Figure 6.1.

#### **Well-being through Education**

Learning new skills, learning to produce food, growing in confidence and feeling empowered can all assist in well-being in everyday life, in healing the sense of helplessness felt after a disaster, and in building resilience. The community gardens provide an accepting and inclusive environment conducive to allowing people to learn by experimenting with new ideas, and an environment where participants are encouraged and complimented on their achievements. Participants can learn skills to take into other areas of their lives, and workshops offered to the wider community can spread the knowledge community garden participants have to offer, thereby contributing to well-being within the community.

#### **Well-being through connectedness with Nature**

I have shown the significance of nature, both as the physical environment and as an object of appreciation, and that both of these aspects of connectedness with nature, can facilitate well-being. Connection with nature is restoring. This can be through a contemplative connection with something greater than oneself, meditation, sharing tasks, or just enjoying a tranquil and relaxing space. Restoration can also occur through having an awareness of the natural cycles, of the beauty of nature, flowers, plants, birds, and enjoying the moment.

I have discussed biophilia and embodiment with nature, and how this fundamental need to be in nature is expressed in the community garden primarily through sensory awareness, and

contemplation. An example of this fundamental need was clearly shown when Luke and Graham both spoke of their need to go to the community garden for restoration and renewal after spending time in front of a computer screen. Luke said being in the garden “feels natural, it just feels like that’s where you’re supposed to be”, and Graham said he felt like “I’m real again, a real person and not part of a computerised machine”.

My results have shown that this relationship with nature can help create positive emotions and the lowering of stress. For example, on one occasion Matthew went to the gardens feeling “quite wound up.” He said that taking time out in the gardens can be “a complete distraction from my normal world” and after he had spent some time watering the plants he felt much better. In another example, Jacky described sunflowers as ‘happy plants’ and said she encouraged those who were feeling a bit down to “look into that flower’, you know, you won’t feel sad when you look into that flower.” This is a wonderful example of gaining emotional strength and well-being from looking at a flower. People with earthquake damage at home, can find some respite and strength at the community garden. Shirley and Ron, said the community garden helped them to cope with their feelings of depression when they looked at the mess of their home garden, as “the community garden reminds them of hope for the future of their home garden... it’s somewhere clean and green, to get away from the silt and dust and grey and wet and gluggy.”

### **Well-being through Enjoyment and Appreciation**

The gardeners show enjoyment and appreciation of life in ‘everyday’ spaces. The community gardens give people the opportunity to reflect on life and deepen their sense of what it is to be alive. This reflection can happen through sensory awareness, mindfulness, contemplation, creative expression, restoration and renewal, nurturing of and caring for plants and people.

One example of this is the ability to experience the ‘good life’ from what is readily available, or the ‘ordinary’ things around us. When Graham said “for me a bowl of cherries from a community garden is one of the best things you could get from life”, and when Luke discussed the pizza party at the garden, he said the “good life” for him was “watching the fire, smelling the smoke” and drinking his home brew, people gathering, the sun, the food, surrounded by the garden, and he said “really life doesn’t get much better than that, and it’s right there, you know, and anyone can do that”.

Another example is being aware or mindful of what is around us, as when Joan said “you have to look to see the treasures”. An extension of this is when creativity is achieved through the use of recycled materials, broken china, bricks, and food from the garden produce, another way of enjoying what is readily available.



My results suggest that community gardens provide a nurturing environment where people can gain various skills, ranging from practical to a deep sense of self-empowerment. This nurturing environment may be more effective for some people to flourish in, than within the competitive environment of modern society. Modern society can provide the freedoms, resources and opportunities for people to pursue and satisfy many of their needs. However there are aspects of our modern society which can disconnect us from our enduring, longer-term inclinations and needs, such as the fast pace of life, consumerism, and competitiveness, and which can detract from our well-being. The following quote from the Dalai Lama reflects this

*When asked 'What thing about humanity surprises you the most?', the Dalai Lama answered: 'Man...because he sacrifices his health in order to make money. Then he sacrifices money to recuperate his health. And then he is so anxious about the future that he does not enjoy the present; the result being that he does not live in the present or the future; he lives as if he is never going to die, and then dies having never really lived.'*

So many comments revealed an appreciation of and gratitude for life in 'everyday' spaces, and noticing the beauty around them and in the ordinary things, things we often take for granted. Some of these are for people and their gifts, including skills, ideas and generosity, fun, laughter and friendship; of nature and connection with something bigger than themselves; nurturing of the growth to come and a sense of wonder when seedlings grow; of the colours, tastes of healthy food and smells; and of creativity. This perspective is possibly even more important since the earthquake, as people have realised that lives can be lost and material possessions can be destroyed in seconds, so possibly enjoying the moment and prioritising what is important for them becomes a way of living.

Gratitude is much more than saying 'thank you'. Emmons, defined it as "a felt sense of wonder, thankfulness and appreciation for life" (Emmons and Shelton, 2002, as cited in Lyubomirsky, 2007, p. 88). Emerging research has suggested that gratitude has multiple well-being benefits, and that what generations of our mother and grandmothers have told us, that we may have rejected as too simplistic, is just as important today (Lyubomirsky, 2007). "In every grandmotherly bit of advice lies a kernel of truth" (Lyubomirsky, 2007, p. 87). People who are consistently grateful experience increased happiness, higher levels of energy, are more positive, less materialistic, and experience less depression or anxiety, among many other benefits for well-being (Lyubomirsky, 2007). Gratitude also helps people cope with stress and trauma if they are able to positively reinterpret stressful or negative life experiences (Lyubomirsky, 2007).

### **Well-being through Social Contact**

Caring, nurturing, sharing, friendship and fun, appreciation of people and enjoying seeing people achieve, are features of social contact in community gardens. Support networks are important for people for general well-being and especially in post-earthquake Christchurch.

There are examples of people taking the time to check on their neighbours. For example in New Brighton, one of the communities experiencing the most earthquake damage, there are examples of the gardeners watching out for others, and for the garden as a place to come to for emotional support, and of the healing that takes place through participation. As Jacky said

*coming down here people can work and talk away while they are working, get a few things off their chest, it's good to talk about things. And maybe here people are in similar situations and you realise you're not on your own so much, and the place has got a good caring feel, everyone looks out for each other, and I can always do a follow up, I've got lots of regular people, that I know would be here each week and I think ooh, I can give them a call and just, especially the elderly". She continued by saying "they come here just to be able to chat to somebody else, and achieve something in the garden, and one woman she was leaving one day and she said "look at me now, look how different I am now" for being here (Jacky.)*

At another garden, Trudi also recognised this dynamic when she said "places like this have saved many people's sanity."

The gardens also provide a space for people to escape temporarily from their daily environment, be it earthquake conditions, or working life, home life. Healing can come from shifting one's focus from the earthquake related issues to something more positive. I refer again to one of my participants who said "it helps to give people purpose, you know, while you're waiting, waiting, waiting for something to happen, it's something you can be doing, together...just creating something."

### **Caring and Nurturing**

There is a relationship between caring for plants and caring for people, such as the comment from one of my participants "as soon as you plant something it becomes like one of your children" and the connection made between the cycles of nature relating to human cycles. On thinking back to my original piece of writing at the beginning of this thesis, when it seemed to me that the way we care for plants mirrors the way we care for ourselves, it is evident that many of my participants also shared this sentiment.

The caring and nurturing of plants is also helping people heal from nature's destruction in the earthquake. Gardeners can live in hope because they are always preparing for the future, while being mindful of the present. The future depends on what we take care of in the present, as part of the cycle of life is that successful growth in the next season depends on what is currently done (Feast, 2013). The natural cycle of life includes death, and then a season of rebirth. In Christchurch, we can see plants growing in the midst of rubble, and they are symbols of hope. In this way, the positive aspect of nature is assisting people's recovery from the devastating effects of the natural forces of the earthquake.

I have highlighted the individual, community and well-being consequences of community gardening, which formed the basis of my objectives. My conclusion will summarise my findings and answer the question posed in my thesis title.

### **6.3 Conclusion**

Before going into the field to research the role of community gardens I quoted from Glover (2003), who said that “community gardens are often more about community than they are about gardening” (p. 193). Based on the information from the participants I have interviewed, I have concluded that an important aspect of community gardening is the growth and renewal of people, simultaneously with the growth and renewal of nature. The gardens can provide an environment whereby people can reflect on and appreciate life.

Healthy food, exercise, social contact and the opportunity to learn skills ranging from gardening to transferable skills to a sense of empowerment, can all contribute to well-being and the personal growth of people. The same is true of the ability to self- renew, slow down, create memories, connect mindfully with nature, and appreciate the beauty of life, while feeling at one with nature and possibly having an awareness of being part of something bigger than oneself. The biophilia hypothesis suggests we humans are part of nature, and therefore people need contact with nature. This can also explain the desire to want to nurture nature, and create something new, even in the face of a natural disaster.

Okvat and Zautra (2014) discussed evidence that suggests that “community gardening has important implications for bolstering psychosocial resilience after a disaster, especially by enhancing cognitive capacity, positive emotions, and community engagement” (p. 85). They also suggested that more research needs to be conducted to “determine whether and how community gardening actually impacts resilience” (Okvat & Zautra, 2014, p. 85). I believe my research shows evidence of all of the above, and demonstrates aspects of “growing people” within the context of nature, which can assist both with everyday life generally, and within this current context of the post-earthquake environment.

I have clearly shown that community gardens have many meanings other than simply growing food. Others have written about community gardens in terms of physical, social, educational and spiritual well- being, and I have acknowledged these writers, and also shown evidence of these in my own study. As my research took place within the post-earthquake environment, I have also looked at the connection between nature and the earthquakes. The earthquakes were a destructive force of nature, but my work in community gardens highlighted the need to work alongside nature. Death is

part of the natural cycle we see in the garden (autumn and winter), as is rebirth and growth (spring and summer). Humans also experience birth and death. As discussed in the previous chapter, when we view the earthquakes in the context of the 'bigger picture' they are part of the earth's natural and ongoing processes (Clark, 2011).

There is also another cycle that is evident in community gardens, which I alluded to when discussing the links in the diagram of themes (see Figure 6.1). That is the importance of putting back what you take out. One of my participants spoke of the importance of compost

*"They [compost bins] are absolutely integral to be able to get the quality back into the soil to help grow the produce, so, it's all part of putting back what we've taken out, and just utilising what we already have and creating a cycle all the time" (Barbara).*

The production of quality compost, which is an integral process for sustainability in community gardens and for producing quality produce, is also symbolic of renewal and growth in human life. There are many references to mutual support, such as the nurturing and caring of others. The skills that people learn are passed on to build stronger communities, and often donations and offers of help for the gardens come back to the gardens from the wider community. The community gardens can feed and restore people with produce, nurturing, social contact and support, education, aesthetic and sensory appreciation. What people take they give back with their time, their skills, and their 'humanness'. This cycle is important in restoring and healing people and nature.

I have shown that community gardens can be places of well-being and can also contribute to the healing of individuals and communities in a disaster situation. One way of dealing with the aftermath of the earthquakes, is to work with nature and to appreciate its beauty. The ability to have a positive focus, to appreciate the good life available in everyday things around us, and to work with others in partnership with nature, can contribute to the healing of individuals, communities and the environment. Community gardens provide places for people to do this.

My thesis title asks the question, *Community Gardens: growing plants or people?* My answer is that community gardens grow plants **and** people. The central finding, that is, is that the notion of a 'community garden' is not just a metaphor or analogy for growing individuals and communities but is itself a *manifestation* of this process in everyday action.

## **6.4 Reflections and Limitations.**

### **6.4.1 Methods.**

This section will discuss some reflections on my methods and possible limitations that could be considered for change, when looking at improving future research.

#### **Reflections on photo-elicitation method**

When I was thinking about my methods and what I could have done differently, I remembered that one respondent, Daniel, had asked if I would like him to paint a picture instead of taking photographs. I declined, as I did not want to add another medium, but after reading (Crouch, 2013), in retrospect this may have been a good idea. Crouch (2013) talked of how he reproduced the sensory feelings he experienced one day while picking peas, by doing a painting and that “making the sketches reworked the feeling” (p. 27). His painting was able to re-capture his feeling of when he picked the peas, and present it through a different medium. In a similar way, through the photo-elicitation method, I hoped that when people revisited their photographs and talked about them, they would recapture to some extent the feelings experienced at the time of taking the photographs, and then be able to talk about these feelings. As Daniel was familiar with painting, this may have been the most successful way for him to capture his feelings than taking photographs, so allowing people to choose their own medium of expression, may be a worthwhile consideration for future research.

Franklin's (2002) view is that “observation sanitises experience of nature by removing other senses and feelings, as if truth itself is merely what can be seen” (p.186). However, my experience contrasted with this, as through the photo-elicitation method, I found that using a photograph as a visual tool to recall other senses and experiences, did give some access to the sensory experience of the participants. This was particularly evident when they included notes they had taken at the time they took the photo, as this was an immediate response that they could ‘tap into’ during the interview. Reliance on memory alone may have been less successful, as they would be remembering a feeling, without evidence of the time they actually felt it. A photograph can lessen the ‘distance’ between the feeling at the time of taking it, and the present. In a similar way, I have looked at photographs of a special holiday and can immediately recall smells and sounds and feel as if I was back there.

I found the photo-elicitation process to be very effective, as participants had more time to think about their responses, although a few people struggled with the concept initially. Any minor doubts I may have had during the process about the effectiveness of this method were soon dismissed after visiting my last garden. I decided to go to a garden that was in New Brighton, as this suburb was a

severely earthquake affected area. Due to logistical constraints as explained earlier, I decided not to undertake the photo-elicitation, but conducted short interviews focusing more on finding out how the earthquake had affected the gardeners, and the effect this had on the meanings of the garden for them. I made contact with the organiser, and she suggested I visit and see who was available for a short interview, so it was more spontaneous, as were the responses. I received some interesting information, and the data were useful, but some of my questions were misunderstood, possibly because they had not had the same time to work through the process and give much thought to it. This supports Collier's point made earlier that "(s) tatements in the photo-interviews were in direct response to the graphic probes ... whereas the character of the control interviews seemed to be governed by the mood of the informants" (Collier, 1957 as cited in Harper, 2002, p. 856). This definitely gave me a contrast to the photo-elicitation process, and I was able to see the benefits of the latter.

One of the potential disadvantages of the photo-elicitation method, as expressed earlier was that the extra time involved may dissuade some people from taking part. This was only the case in a few instances, and I agree with Van Auken et.al. (2010), that the participants seemed to find the change from a traditional interview an interesting experience.

Another reason why I would use the photo-elicitation and interview method again is because, as Beilin (2005), said, as well as participants having the choice to decide what to include, they also get to decide what to exclude. Another interesting line of inquiry could be to explore what they *excluded* and why. This could further reinforce the importance of what was included in the photographs.

Although combining methods (as mentioned above) did give me a contrast that was useful for future reference in planning further research, I may have had even more meaningful results at New Brighton if I had continued with the photo-elicitation and interview method. I also gave the option to those who identified themselves as the leaders of each garden, of not taking part in the photo-elicitation, and only doing an interview. This caused some confusion as mentioned earlier, as some did only an interview and some did the photo-elicitation. In future research, it would probably be better to use the photo-elicitation method with all participants.

Some of the photographs were not able to be published. Some of them were blurred, and some included people who had agreed to be in the photo, but not in the publication. Therefore I could not include all the photographs and consequently have made reference to some photographs without including them.

I began by using disposable cameras, as I knew of another researcher who had done this. There were some difficulties at the beginning with one of the cameras being faulty. Despite this, it soon became

clear that a better option was for participants to use their digital cameras and email the photographs to me. In future research, I would not use disposable cameras (except in an instance where someone does not own a digital camera, to ensure everyone has an equal chance of participating).

### **Reflections on sample size**

Another possible limitation was that I interviewed only a small sample of people from the entire Canterbury Community garden network, and therefore my results are representative of the views of a small number of people. Nevertheless, considering the size of each garden community, the numbers of people that I interviewed from each garden was a good representative sample. Also, the gardens I did study were spread over a wide area of the network (see Figure 3.2). However, I only studied five gardens out of the possible twenty-four that were then in existence, and it is possible that non-selected gardens could have included people who had quite different experiences from those I interviewed.

Nevertheless, it is a characteristic of qualitative research and of asking open ended questions, that statements by the participants will contain elements that are quite specific to particular individuals, no matter how many people are interviewed. The essence of the ideas expressed within several statements, can still be generalised into broader themes, as I have done in the presentation of my results. For example, the concept of creativity was expressed in many different ways. Some of these included one participant's discovery that he actually could be creative, the idea that the gardens are creations in themselves, the variety of visual imagery used to describe the beauty of plants and flowers, the ability to conceive an idea and to produce a creation from recycled materials, the practical creations such as collapsible bean frames, the photos that were taken, and the community memories created with post-earthquake bricks from the local community. Individuals have spoken about or alluded to creativity in many different ways, but their comments all contribute to aspects of an over-arching theme.

The point I am making here is that although more participants from different gardens would have given me more data, and more individual opinions which would have added to the richness of the data I had already collected, the data may, or may not have contributed to the identification of more themes.



## 6.5 Ideas for Future Research

### 6.5.1 An appreciation of the 'simple' or 'ordinary' life- further thoughts

In my results and discussion, I have shown that one of the main themes in my findings is that of participants having an appreciation of the 'simple' or ordinary things of life. A common thread is reflected in many of the photographs that people have chosen to take and their comments. That is, the conditions that provide the 'good life' for these people are readily available, and people show an ability to express an enjoyment of life which involves very little financial expense. Satisfaction for these people can come from being able to create something useful from basic and inexpensive recycled materials, such as finding a use for a brick from an earthquake damaged house, a function that is both sustainable and creates a memory of what has gone before. Again, this represents appreciation of the ordinary things, and is also sustainable for the planet.

This is in contrast to our modern consumer society, which through various ways of advertising continually encourages us of the need to spend money in the enjoyment of our leisure activities (Perkins & Thorns, 2012). Community gardening is mostly a non-competitive activity, and such

*[n]on-competitive activities where people are working together voluntarily, are enormously fulfilling and protective of mental health. They offer relief from the otherwise relentless pressure to be successful in our individualist society – and provide belonging, a fundamental human requirement for flourishing (Harre, 2012, as cited in Hennessey, 2012).*

Many of the comments of the respondents reflect the values of simpler living, strongly suggesting that the community gardens are places to experience and express values of a simpler way of life, more attuned to the sustainable care of selves, communities and nature. As people are being exposed to these values at the gardens, it would be an interesting aspect for future study to find out if some of them will-or do- pursue some of these values elsewhere in their lives outside the community garden.

### 6.5.2 Connecting with nature

There are people who choose not to avail themselves of the opportunity to connect with green space. In his research looking at reasons for this, Hitchings (2013) suggested that much of the research done on green space is targeted at those who already use the spaces, and not enough on those who do not - and why they do not - use them. Not much is known about people who are quite happy to go about their daily lives without connecting with green space, even when these people are aware of the research that suggests the benefits of doing so. Some of these reasons could be cultural, for example green spaces may be perceived as dirty or unsafe places. Some of the professional lawyers in central London that Hitchings interviewed, said they were busy people, and

also that it was not viewed as 'professional' to be seen relaxing in the green space next to their building during their lunchtime (Hitchings, 2013). He suggested that it would be more beneficial to focus on why people do not use the green space, rather than make the space available and then presume that people will want to use it. Although this applies to any green space such as parks or open spaces, and not specifically to community gardens, this could still be a worthwhile area for more research, particularly as some participants in my study specifically mentioned the benefits of taking time out from their work to restore themselves in the community garden. I also discovered, however, that participants in community gardens did not always share the same motives (e.g., to 'save the planet' or socialise). There may be a certain perception about community gardens and perhaps those not involved are making assumptions about those who do and so are reluctant to become involved.

### **6.5.3 Ideas for Christchurch.**

There will be many opportunities to research the future development of community gardens and associated spaces in post-earthquake Christchurch. An important aspect of community gardens is their focus on sustainable living for the future, which will be essential for building resilience in the face of future potential natural disasters. For example, the earthquake may potentially have paved the way for a scenario where Christchurch could become a "world leader in urban sustainability" (Morris, 2012, p. 15). There are many unused spaces in the worst affected suburban areas of Christchurch, which are unlikely to be able to be built on in the foreseeable future. These areas could be put to productive use, such as growing fruit and vegetables along the banks of the Avon river (Morris, 2012).

This would be in line with what many other cities in various parts of the world are doing, and go some way towards attaining a level of food security within a global context of "changing weather patterns and potential shortages of the oil that is now so essential for moving our food supplies around" (Morris, 2012, p. 15). It would also prepare for emergencies, in line with guidelines given almost 10 years ago by the Community Food Security Coalition's report 'Urban Agriculture and Community Food Security in the United States', which stated that "to prepare for emergencies, every community should be able to produce or supply at least a third of the food required by its residents" (Morris, 2012, p. 15).

Initiatives such as this could bring back the 'garden city' in a new way that addresses both food and social needs. Community gardens were identified in the Christchurch Central Recovery Plan, as a project that "will enhance the amenity and natural values of the central city" (New Zealand Canterbury Earthquake Recovery Authority, 2012, p. 59), and they "offer an example of how we can

work together and create meaningful and sustainable neighbourhoods for the future” (Killick, 2014, p. 19).

Recently, a newspaper article wrote of a proposal for an international riverside precinct, to assist “quake displaced migrants”, “to nurture newcomers” , and to “bring people back into the central business district” (“Ethnic enterprise,” 2014, p. 1). Vegetable growers are wanted, to supply the proposed regular weekend vegetable market (“Ethnic enterprise,” 2014), so community gardens along the river bank would fit with this idea. The precinct could also be of benefit to the migrants and their families who have moved to Christchurch to help with the rebuild (“Attitude change needed for rebuild,” 2012, July 19), as a welcoming and social meeting space.

I have studied community gardens currently in existence, future research could follow how they develop in Christchurch.

## **6.6 Final thoughts**

This has been an interesting and challenging piece of research. My curiosity into why people garden in community gardens has led me to discover many meanings that contribute to the well-being of the participants. I came to realise that it is not only the gardening itself that is important, but what happens to the people in the experience of the community garden. ‘Growing people’ occurs alongside growing plants, as people nurture and care for plants, themselves and each other. Even the people who came primarily to grow food experienced other benefits along the way. As in many aspects of life, the journey is often as important, and sometimes more important than the destination.

This work adds to the literature on community gardens, by researching the meanings for individuals, communities and the well-being consequences of these meanings. These meanings intertwined with nature connectedness offer another perspective on restoration and renewal in everyday life, as well as for healing after a disaster such as the Canterbury earthquakes of 2010/2011.

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# **Appendix A**

## **Forms**

### **A.1 Research Information Sheet**

**Lincoln University  
Faculty of Environment Society and Design**

**Research Information Sheet**

My name is Lyn Minchington and I am a Masters degree student at Lincoln University. I am looking for volunteers to participate in a study on the meanings of community gardens. The aim of this project is to explore and examine how community gardens contribute to the well-being of individuals and the community.

Your participation in this project would involve the following activities:

Reading and signing a consent form

Filling out a demographics questionnaire (e.g. age, gender)

Taking 10-12 photos of community garden activities and experiences that are significant and meaningful to you, over a 4 week period (for example the photo might relate to an area of the garden you enjoy being in, a social activity, a new skill you have learned, etc. The photo could also relate to a negative experience). Taking brief notes about why you chose to take these particular photos.

Taking part in an interview with me, of up to 60 minutes.

When you have taken the photos, please email them to me. If you don't have your own camera, I can provide you with a disposable camera (and instructions for use) and I will have the photos developed for you when you are ready. When taking each photo it would be helpful if you could make some brief notes (in the note book I can provide) describing the significance of the photo to you. If you wish, you may also include photos of your own of particular significance to you that you have taken at an earlier stage. The photos and notes will be used as prompts during our interview. The interview will be conducted at a mutually convenient time and place. I will ask you if the interview can be digitally recorded, however if you are uncomfortable with this, I will take notes only. The results will be published, however, you can be assured that none of the reporting will allow you or any other participant to be identified.

To ensure anonymity, the following steps will be taken. All names will be replaced with pseudonyms in all presentations of the research findings. Consent forms and interview transcripts will be stored in a secure location in accordance with Lincoln University policies and procedures. If photos are included with publication of the results, and if they include people who are easily recognisable, the faces will be pixelated (disguised).

You may withdraw from the study, including any information provided, if you feel it is not what you expected, or for any other reason, up until March 28, 2013, when data analysis will begin. If I need to clarify anything, briefly, as a result of listening to the interview, I may need to contact you to ask a

quick question. If you would like a copy of the research results, they can be made available to you by contacting me at the numbers listed below.

This project has been reviewed and approved by Lincoln University Human Ethics Committee. Although the Human Ethics Committee is aware of the general areas to be explored in the interviews, the Committee has not been able to review the precise questions to be asked, as these will firm up only as the study gets underway. If you have any further questions about this study please feel free to contact me on 325-2547 or email [lyn.minchington@lincoln.ac.nz](mailto:lyn.minchington@lincoln.ac.nz) ; or my supervisor Associate Professor Bob Gidlow, Faculty of Environment Society and Design, email: [bob.gidlow@lincoln.ac.nz](mailto:bob.gidlow@lincoln.ac.nz) Thank you for your participation in this study.

Sincerely,

Lyn Minchington

Masters Degree student,

Lincoln University

## **A.2 Research Project**

### **Research Project**

Lyn Minchington is a Masters degree student from Lincoln University, researching community gardens. She will be visiting and observing this garden (and others), to gain a general understanding of 'the daily life of the community garden.' If anyone objects to being observed, please let her know, and she will ensure that you will not be specifically referred to in any write up of the observation, or alternatively she could negotiate with you to arrange her observations at a time when you are not at the garden. Please note that any observations of community garden visitors will remain strictly anonymous, meaning that their identity will not be revealed.

Lyn is also looking for volunteers to be interviewed as part of her research project. An information sheet about the research is available. If you are interested in taking part, please contact Lyn on 325 2547, or email [lyn.minchington@lincoln.ac.nz](mailto:lyn.minchington@lincoln.ac.nz).

### A.3 Consent Form

#### Consent Form

*Name of Project:* The Meaning of Community Gardens

I have read and understood the description of the above-named project. I understand that interviews will be digitally recorded, and if I am uncomfortable with this, I can choose to have the interviewer take notes only and she will abide by this.

On this basis I agree to participate as a subject in the project, and I consent to publication of the results of the project with the understanding that anonymity will be preserved. I understand also that I may withdraw from the project, including withdrawal of any information I have provided, up until March 28, 2013, when data analysis begins.

Name: \_\_\_\_\_

Signed: \_\_\_\_\_ Date: \_\_\_\_\_

## A.4 General Information

### General Information

Date\_\_\_\_\_

Age\_\_\_\_\_

Male              Female [please circle appropriate response]

Ethnicity\_\_\_\_\_

Do you have a garden at home?   Yes      No

[please circle appropriate response]



## A.5 New Brighton Research Information Sheet

Lincoln University

Faculty of Environment Society and Design

Research Information Sheet

My name is Lyn Minchington and I am a Masters degree student at Lincoln University. I am looking for volunteers to participate in a study on the meanings of community gardens. The aim of this project is to explore and examine how community gardens contribute to the well-being of individuals and the community, and I am aware that New Brighton is an area which has been severely affected by the earthquakes.

Your participation in this project would involve the following activities:

Reading and signing a consent form.

Filling out a brief demographics questionnaire (e.g. age, gender)

Taking part in an interview with me, of up to 60 minutes duration.

The interview will be conducted at a mutually convenient time and place. I will ask you if the interview can be digitally recorded, however if you are uncomfortable with this, I will take notes only. The results will be published, however, you can be assured that none of the reporting will allow you or any other participant to be identified.

To ensure anonymity, the following steps will be taken. All names will be replaced with pseudonyms in all presentations of the research findings. Consent forms and interview transcripts will be stored in a secure location in accordance with Lincoln University policies and procedures.

You may withdraw from the study, including any information provided, if you feel it is not what you expected, or for any other reason, up until April 30, 2013, when data analysis will begin. If I need to clarify anything, briefly, as a result of listening to the interview, I may need to contact you to ask a quick question. If you would like a copy of the research results, they can be made available to you by contacting me at the numbers listed below.

This project has been reviewed and approved by Lincoln University Human Ethics Committee. If you have any further questions about this study please feel free to contact me on 325-2547 or email [lyn.minchington@lincoln.ac.nz](mailto:lyn.minchington@lincoln.ac.nz) ; or my supervisor Associate Professor Bob Gidlow, Faculty of Environment Society and Design, email [bob.gidlow@lincoln.ac.nz](mailto:bob.gidlow@lincoln.ac.nz)

Thank you for your participation in this study.

Sincerely,

Lyn Minchington

Masters Degree student, Lincoln University.