Designing for Therapeutic Care Farms

by

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ABSTRACT

Designing for Therapeutic Care Farms

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Care farming is the therapeutic use of farming practices to provide health, social or educational care services for a range of groups of vulnerable people. This includes but is not limited to those with mental health problems, people suffering with substance abuse, adults and children with learning disabilities and disaffected youth. Literature on the process of designing for care farms is limited. This research sought to develop care-farm design guidelines for landscape architects. The study identifies and analyzes design-related themes from the academic literature relating to care farms, building on therapeutic landscape literature. The design guidelines are created based on key informant interviews that took place in Ontario in 2019. The final design guidelines can support landscape architects with necessary information to design care farms.

Keywords: Landscape architecture, Design guidelines, Therapeutic landscapes, Ontario, Health facilities—design and construction, Mental health

DEDICATION

I would like to dedicate my thesis to those who I love who have passed on and I think of often. To my family members Sarah Hartstone, Nancy (Neshi) Hartstone, Marvin Hartstone and Doug Thomas. To my friends Alana Rosenwhite and Joe Polovoy. May you all rest in peace.

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To my dog Rio: Thank you for getting my out of the house and into the forest for some much needed break time.

Love to you all.

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LIST OF ABBREVIATIONS

EOC- Environment of Care
STH- Social and Therapeutic Horticulture
IDT- Interdisciplinary Design Team
EBD- Evidence -Based Design
E-**BHD**- Evidence Based Health Design

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Chapter 1: Introduction

1.1 The Development of Therapeutic Care Farms

Care farming has many names (e.g., social farming, care farm, therapeutic care farm, farming for health); in this thesis I will use either care farming or therapeutic care farms. Care farming can be defined as an innovative and natural option for health and social care that takes place on a working farm to give people in need the opportunity to connect with nature and build new skills. Those who attend care farms include but are not limited to those with mental health problems, people suffering with substance abuse, adults and children with learning disabilities, the elderly and disaffected youth. Landscape architects have great potential for designing care farms and in using agricultural landscapes and farming practices, along with approaches to therapeutic landscapes, to improve health and wellbeing.

Research has shown that care farms are not as prominent in North America, and particularly not in Ontario; they are most prominent in Europe. With limited research thus far on therapeutic care farms, my research goal is to expand our understanding of how to design for care farms.

1.2 Research Goal and Objectives

Goal: To develop landscape architecture design guidelines for therapeutic care farms.

This goal will be reached through the following five objectives:

1. Common themes developed through an analysis of the literature

2. Creation of a questionnaire based on these themes

3. Development of criteria to select key informants

4. Semi-structured interviews with key informants

5. Creation of design guidelines for care farms

1.3 Thesis Outline

In the following chapters, I will address the objectives outlined above to achieve the research goal. Chapter 2 provides a literature review to provide context for the research performed. Chapter 3 describes the methods used to gather and analyze the data. Chapter 4 presents the results and analysis of the data from the key informant interviews. Chapter 5 provides discussion on the resulting guidelines and a reflection on the research process, and then offers the conclusion with final observations of the research.

Chapter 2: Literature Review

2.1 Overview

This literature review provides an overview of the history of therapeutic horticulture and mental health, human-plant interaction: the general benefits of plants and well-being, therapeutic care farms, economics of care farming, multifunctional agriculture, designing for care farms, all of which are under the blanket term of green care and contribute to the understanding of therapeutic care farms.

2.2 A Brief History of Therapeutic Horticulture and Mental Health

The experience of the natural landscape, and working within it, has been associated with physical and mental health for centuries (Sempik, 2010). The landscape and its cultural context and significance to the individual all play a role in a healing experience (Sempik, 2010). In the Middle Ages, gardens were built within the grounds of hospitals and monasteries to provide a peaceful space that allowed for reflection and healing (Sempik, 2010). It was not just the space that provided the healing but the work within it: farming and gardening. Farms and gardens have been within the grounds of hospitals, monasteries, prisons and other places for the more vulnerable for centuries (Sempik, 2010). It was the patients themselves who grew the produce, and who then supplied it to other patients and carers; these activities provided meaningful occupation and a sense of fulfillment.

However, there were controversies about the healing benefits of farming. In 1948, most farms and gardens in England were being closed down but many of the

people who had been involved with the farms and gardens began to recreate them in a different capacity, linking up with other professional fields including, but not limited to, horticulture, nursing, and occupational therapy, and inspired by social movements linked to nature (Sempik, 2010). The development of pharmaceutical drugs to treat mental illness was on the rise and there was not enough evidence to support the therapeutic aspect of farming (Sempik, 2010). In the 1960s, chemical therapy became mainstream (Toyoda, 2013). In 1973, the American Horticultural Therapy Association was established which began to attract academic research and sparked the modern era of nature work (Sempik, 2010). There are many groups of vulnerable people who would benefit from horticultural therapy and therapeutic horticulture; however, most of the research that has been compiled focuses on the following three groups: the elderly, children with developmental disabilities, and those who suffer from mental health and addiction. Official reports released in the mid 20th century concluded that outdoor labour, natural surroundings and fresh air were helping patients who were suffering from mental illness (Sempik, 2010).

2.3 Human-Plant Interactions: The general benefits of plants and well-being

In order to understand the need and development of therapeutic care farms, it is important to take a look at the important contribution that plants have on human health. It can be seen that there is a strong correlation between plants and human health.

Growing research and case studies have highlighted the positive outcomes in both social and physical participation in working with plants (Elings, 2006). Some of these outcomes include increased self-esteem, improved health, enhanced concentration, and development of practical skills and structure with an added routine to an individual's days that creates a greater sense of accomplishment (Elings, 2006). Having a connection with plants is a possible coping-strategy for stressful life experiences, which can be beneficial for physical, social, emotional, and spiritual well-being (Elings, 2006). Ulrich et al. (1991) showed that exposure to different everyday outdoor environments may either foster or hinder recovery from stress. Their study indicated that exposure to outdoor environments fosters the recovery of those suffering from an illness (Ulrich et al., 1991). The second objective of this study was to test the notion that exposure to natural settings will promote greater stress recovery than contact with urban environments, and that these differences should be quite noticeable in emotional states and physiological indicators (Ulrich et al., 1991). Research has shown that patients with a background in psychiatric illness who are working with plants and with others in a group setting were enabled to work together with added motivation and cohesion within their group dynamics (Elings, 2006). Overall, results showed that patients improved communication, learned practical skills, and improved self-confidence and concentration (Elings, 2006).

In understanding how plants are beneficial to our well-being, there are two main theories discussed in the literature: *Attention Restoration Theory* by Kaplan and Kaplan (1989) and the *Psycho-Evolutionary Model* by Ulrich (1991). Both theories address the

influence that nature has on the reduction of stress and mental fatigue by understanding the recovery effects that nature has on human beings.

The *Attention Restoration Theory* looks at how attention to nature does not need effort and, in fact, stimulates attention that is restorative to those who have mental fatigue (Kaplan & Kaplan, 1989). Two ways that contact with the natural environment can result in a reduction of mental fatigue are: 1) being in nature allows for the user to *be away* from the routine of daily activities and thoughts; and 2) through soft fascination, where the user does not need to labour their attention to enjoy the surroundings (Kaplan & Kaplan, 1989).

The *Psycho- Evolutionary Theory* states that in the modern day world we are constantly being bombarded by noise, movement, and visual stimulations; such environments overwhelm us, leading to psychological or physiological effects (Ulrich & Parsons, 1992). On the other hand, environments dominated by plants reduce the arousal that can be caused in urban environments, reducing the feeling of stress (Ulrich & Parsons, 1992).

There is a slight difference between horticultural therapy and therapeutic horticulture. Horticultural therapy is defined by Sempik et al. (2003) as "the use of plants by a trained professional as a medium through which certain clinically defined goals may be met" (Elings, 44, 2006). Therapeutic horticulture is defined as "the process by which individuals may develop well-being using plants and horticulture. This is achieved by active or passive involvement" (Elings, 44, 2006).

Based on research done in the U.K., Sempik (2010) presents an overview of the uses of Social and Therapeutic Horticulture (STH) for people with mental health, learning disabilities, physical disabilities, and for those who are seen as more vulnerable. The results of this study show that a garden can provide a sense of belonging and of place, thereby enabling the restorative experience overall (Sempik, 2010). STH aims to provide mutual support and benefit to the health of the community of people taking part in horticultural practices (Sempik, 2010). The work environment that is created through STH is similar to regular employment but reduces its pressure, which benefits the community and provides meaningful employment (Sempik, 2010). STH also provides opportunities for social contact and an experience of the natural environment, which then creates space for psychological and spiritual development to flourish. STH as a grassroots movement has shown that there are positive therapeutic benefits in having a sense of purpose, physical activity, new skills and an immersive environment through social care intervention (Sempik, 2010). Complex in nature, STH does not focus on any one specific illness or condition but instead aims to offer a variety of experiences, opportunities and activities that promote a connectedness to nature (Sempik, 2010).

2.4 Therapeutic Care Farms

Care farming can be explained as "the use of commercial farms and agricultural landscapes as a base for promoting mental and physical health through normal farming activity (Elsey et al., 1, 2014). By using the agricultural setting to promote health and

care for different groups of people, there has been a wider shift from institutional to socialized community care (Hine et. al., 2008). The combination of agricultural work and care is not new. For some time, individuals who were seen as different and could not fully be present and participate in society have worked on farms (Elings & Hassink, 2006). A large number of the first therapeutic care farms were based on an anthroposophical philosophy, which is defined as a scientific approach to the study of human nature and the human connection to the universe that can be applied to a variety of different fields of human activity, including psychology, education, and biodynamic agriculture (Anthroposophical Society in Canada, 2018). This philosophy offers human beings the ability to develop thinking that comes from the heart (Anthroposophical Society in Canada, 2018). Care farm activities may prove to be not only therapeutically beneficial but also meaningful (Gorman & Cacciatore, 2017). Not just from physical activity for the sake of physical activity but from purposeful tasks that place a value and respect on the participant's experience (Gorman & Cacciatore, 2017).

Agriculture and social care is a promising combination that contributes to the diversification of agricultural production while also providing new sources of income and employment to farmers who wish to have the opportunity to re-integrate agriculture into society (Elings & Hassink, 2006). Most care farms are family farm enterprises that are independent of health institutions (Elings & Hassink, 2006). This sometimes poses an issue for the care farms, as there is a lack of financing and care institutions perceive care farms as competition and not complementary (Elings & Hassink, 2006). With the increase in the number of care farms, there is also a growing interest in the relationship

between nature and health. Although there is a great diversity of participants who attend care farms, the highest percentage consists of mentally-challenged people and those with psychiatric problems (Elings & Hassink, 2006). A large number of those attending care farms have experienced traumatic grief in some form and some have experienced it associated with psychiatric sequelae, which involves somatic un-wellness including an increased hazard risk of premature mortality, social/interpersonal effects, increased substance abuse, economic effects, and psychological (emotional and mental) distress (Gorman & Cacciatore, 2017). Associated psychological features include not only normal sadness, despair, tearfulness, lack of energy, and agitation in general, but also a fear feedback loop, inability to focus, and more (Gorman & Cacciatore, 2017). A significant minority of the general bereaved population (approximately 5-20%) experiences serious long term psychiatric distress (Gorman & Cacciatore, 2017). Those critical of the medicalized treatment of traumatic grief note that sufferers are at an increased risk of misdiagnoses and unnecessary medications (Gorman & Cacciatore, 2017). Long term side effects of psychoactive drugs range in seriousness from certain neurological disorders, sexual dysfunction, to weight gain and withdrawal symptoms (Gorman & Cacciatore, 2017). Care farming is frequently linked to creating a fairer distribution of health and well-being to enhance people's opportunities through education and learning (Gorman & Cacciatore, 2017).

In general, participants attend care farms for a finite period of time during their personal journey of recovery and rehabilitation (Gorman & Cacciatore, 2017). The length varies depending on the needs of the individual; generally, sessions on the farm

last a full day 1-3 times per week, with the program running anywhere between 8-12

months (Gorman & Cacciatore, 2017). Some farms take smaller groups while others

take larger groups (Gorman & Cacciatore, 2017). However, classifying what 'care

farming' is and what it involves remains complicated (Gorman & Cacciatore, 2017).

Some farms take a more passive approach, inviting various vulnerable groups into the

farm space which has the potential to be therapeutic, through contact with animals,

nature, and the contact with others which creates inter-sociality (Gorman & Cacciatore,

2017). Other farms provide specific therapies and interventions, by providing a

structured program of farming-related activities, with certain goals to be met, on a

regular basis for participants as part of structured care, rehabilitation, therapeutic, or

educational programs (Gorman & Cacciatore, 2017).

2.5 Economics of Care Farming

In the Netherlands, care farmers have started forming regional associations that

help with matching supply and demand, strengthening quality, providing information on

green care, and assisting in negotiating with health institutions and insurance

companies (Elings & Hassink, 2006). The value of a farm that has real agricultural

production is higher in comparison to a care farm that produces products only as a

hobby (Elings & Hassink, 2006). This relates to the presence of a farmer for the

participants as well. The farmer is the role model and the farm boss, not the therapist.

The farmer is skilled in agriculture, which forms the basis for a good working

relationship with participants (Elings & Hassink, 2006).

Participants can always rely on the knowledge and expertise of the farmer, which leaves a general feeling of safety and clarity among participants (Elings & Hassink, 2006). The farmer creates an environment in which the participant is challenged both mentally and physically, a challenge for increased development (Elings & Hassink, 2006). Working with existing farmers is important as social workers are not trained farmers; they do not have the real agricultural knowledge that is needed to create the environment in which the participants can grow and flourish. Health can only be stimulated when a person experiences safety, challenges, and involvement with the activities and social environment (Elings & Hassink, 2006). Devoting one's time and experience in these activities not only creates a good feeling for participants but also for the farmer and their family to see them responding so well to farm life (Elings & Hassink, 2006).

In creating opportunities for positive self-appraisal, participants were able to see the direct results of the effort they put into their work (Iancu et al., 2014). From pruning trees and then seeing them fruit, to cleaning the barn and improving the comfort of the animals, participants experience simple yet very motivating work (Iancu et al., 2014). Care farms have proven to provide increased health to those more vulnerable, representing an evolution of modern agriculture to become multifunctional by not simply producing food but also providing care (Hine, 2008).

2.6 Multifunctionality in Agriculture

Multifunctionality is one of the main goals of care farms by providing alternative strategies to more conventional agricultural practices. The production of food can be combined with social functions, such as caring for more vulnerable people or caring for the landscape (van Elsen et al., 2006).

With multifunctional care farms, there is an intentional combination of food production and social care (van Elsen et al., 2006). The relationship that people have with nature and the landscape forms the opinions they have, which develops part of their identity (van Elsen et al., 2006). With the development of skills and the close proximity to the surrounding natural landscape, individuals begin to form a deeper connection with themselves again. People living and working on farms become connected to place, to nature and to the landscape. Farms that practice multifunctional agriculture can develop a closer and more resilient connection with the surrounding landscape and with other people and community.

2.7   Designing Care Farms

Several themes that care farms generally incorporate are: care for animals, maintenance work, nature activities, gardening and horticulture, play and adventure activities, social interaction with others, and educational activities (Kraftl, 2014). These activities are in a specific place-based setting where the sensorial experiences of participants are contributing to forming new relationships and a sense of community within the place that the care farm creates (Gorman, 2017).

Care farmers in the Netherlands can receive additional income for nature conservation and landscape management. Elings and Hassink (2006) found the most popular of these activities that also fit well with the goals of participants were maintenance of hedges and other landscape features, protection of meadow birds, care for orchards and creation of design features such as ponds. In working with plants and animals during their stay on care farms, participants form a stronger connection to other living creatures that they nurture and care for (Elings & Hassink, 2006). The garden is seen as a safe space, a friendly setting where there is no discrimination and all are welcome (Elings & Hassink, 2006). Plants are non-judgmental, non-threatening, and non-discriminating (Elings, 2006).

Along with a connection to living creatures other than human contact, there is the importance of the sensory aspects of horticultural activities such as smells, colours, and working with soil. There are benefits in working and experiencing nature more intensely; one example is in seeing the regular patterns of the seasons (Elings & Hassink, 2008). By being in contact with the landscape on a regular basis, participants learn how things grow and flourish, living in harmony with the seasons; the surroundings have immediate effect. Participants are amazed at the results of their work in seeing that, with a little bit of energy, there can be huge results. Seeing plants growing and producing crops brings new hope and determination (Elings & Hassink, 2008). Sensory experience is very important, especially for a participant who has experienced trauma. Studies have linked smell as a strong trigger for remembering past memories. The landscape of a care farm is open and expansive, leaving a sense of ease (Iancu et al.,

2014). Participants experience nature more intensely than they would in the city. The care farm teaches them how to grow food, what to eat and how to prepare it (Iancu et al., 2014).

Reflecting back on STH, there are certain features that are incorporated in these projects that have the potential to be applied in designing for care farms. These include therapeutic intent and practice, location, the natural environment, democracy and involvement, social coherence and community, production, routine, and arts and crafts (Elings & Hassink, 2006). By including a therapeutic garden, a care farm promotes mental and physical health and well-being. Access to an outdoor site with a shelter creates a space for the groups to meet, socialize, and eat together in nature. The surrounding natural environment allows for a connection to be developed that links the participants to the space, which is an essential feature in STH (Elings & Hassink, 2006).

Working on projects that help participants foster the development of a community and allow them to become involved in running and organizing projects develops a sense of social connection. Production is an essential part of life on the farm as this is the source of the farmer's main income. When working in production, participants develop a sense of identity as workers or gardeners, and the activities and procedures of STH are designed to facilitate the development of routine with an expectation of commitment (Elings & Hassink, 2006). These defining features are highly valued by STH participants, and can prevent further deterioration in their condition along with an improvement in social functioning and quality of life (Elings & Hassink, 2006).

The transition from the participants' past to current lives proved to be a progressive process where positive changes occurred. Participants observed that they became more physically fit, performed tasks easier, communicated easier with others, and became calmer and confident with an improved mood (Iancu et al., 2014). Participants also form relationships that develop into friendships; a close group is formed with the farmer's family and co-workers. A participant in Elings and Hassink study noted that "they organise things like a Christmas celebration. It's like having a big family, or being in a small village. It's warm and close group" (Elings & Hassink, 319, 2008). Overall it has been noted by participants that a care farm is a place where one can feel safe, have a sense of community, share efforts in work, and acquire a sense of connection and freedom (Elings & Hassink, 2008).

There are general considerations that should be taken into account when designing for therapeutic landscapes. In the case of therapeutic care farms, there are no guidelines yet. However, there are more general and specific considerations that have been noted in Clare Cooper Marcus and Naomi Sachs book *Therapeutic Landscapes* (2014) in which they outline many key design considerations when designing for a health care facility. The following considerations apply to every component of all outdoor spaces: 1. Safety, security, and privacy; 2. Accessibility-Universal Design; 3. Physical and emotional comfort; 4. Positive distraction; 5. Engagement with nature (biophilia); 6. Maintenance and aesthetics; and 7. Sustainability.

There are physical and programmatic factors that should influence the design that will be implemented. Site context, programming, and other external factors all affect design (Cooper Marcus & Sachs, 2014). The overall environment of care (EOC) must be considered individually when designing (Cooper Marcus & Sachs, 2014). EOC is a total system approach when addressing the total healthcare environment which is scalable and can apply to a part of the healthcare system or the system as a whole (Cooper Marcus & Sachs, 2014). There are six components: concepts, people, systems, layout/operation, physical environment, and implementation within the EOC to consider in design (Cooper Marcus & Sachs, 2014). This allows for there to be a whole systems approach not just focusing on the individual relationship to one thing but the relationships between things (Cooper Marcus & Sachs, 2014).

Other important programming and site planning considerations to take into account, according to Cooper Marcus and Sachs (2014) are as follows:

The interdisciplinary design team (IDT) is defined by the stakeholders involved in programming, design, construction, and ongoing management of a facility (Cooper Marcus & Sachs, 2014). The makeup and vision of the IDT will influence the design and is essential in any healthcare garden design project to ensure that input from all parties is on the same page (Cooper Marcus & Sachs, 2014). Feelings of involvement with the project leads to a higher rate of continued stewardship long after the construction phase has ended (Cooper Marcus & Sachs, 2014). Then there is the idea of evidence- based design (EBD), which is based on the most up-to-date research and evidence for the design functions (Cooper Marcus & Sachs, 2014). EBD helps to incorporate and inform

new design based on evidence and research which will help with the healthcare facilities vision for the desired outcomes that are discussed within the IDT (Cooper Marcus & Sachs, 2014). The composition and culture of the organization, which includes the stated and unstated values of the shared assumptions, policies and procedures, official and informal organizational structure of the organization, can have a large impact on the future of design possibilities (Cooper Marcus & Sachs, 2014).

Key programming and site planning guidelines that should be taken into account when designing for a therapeutic landscape noted from Clare Cooper Marcus and Naomi Sachs book *Therapeutic Landscapes* (2014):

1. Consider the entire site as a healing environment. From the moment the patients enter the premises they should feel assured of the association's commitment to their health and well-being.
2. Involving the landscape architect (LA) as part of the IDT from the beginning of the design process. The LA's expertise is important in designing the general site planning, incorporating access to nature, locating and orienting buildings, using existing features, maximizing views, and siting gardens and courtyards
3. Using a LA who is skilled in the design of therapeutic landscapes
4. Design for all patient types being served and for the needs of the most vulnerable population
5. Designing for health outcomes and for programs/activities that support the desired outcomes

6. Staff should be trained and educated about the use and benefits of the garden and protocol for patient use

7. For specific garden programming, use the help of professionals who are skilled in that area of design

8. Make an effort to provide a separate space that is only available to the staff

When designing for mental and behavioural health facilities, which encompasses the large percentage of those attending a care farm, one should consider the patient's thoughts on the space. Curtis et al. (2007) looked specifically at the hospital's environment (including and not limited to the physical environment) that were beneficial or detrimental to their health and well-being. Themes that emerged were surveillance versus freedom and openness, territoriality, privacy, refuge, social interactions, and homeliness and contact with nature. Since there is such a varying spectrum of mental health and well-being, the target groups attending individual care farms would need to be specified so when the time came for design there would be specific site programming and design guidelines established.

It has been noted that biophillic design features play a key role in the enhancement of psychiatric hospital design. Some key features include:

- Features that enhance privacy and autonomy
- Incorporation of special flexibility
- Separate staff areas (as mentioned above)
- Places for family

- A homelike, non-institutional environment

- Movable furniture (avoiding objects that can be used for harm)

- Design that reinforces treatment goals by providing a "latent message" of care (Cooper-Marcus & Sachs, 2014).

There is strong evidence supporting nature-based therapy in conjunction with the surrounding landscape, which has led to a successful whole system approach to designing for therapeutic landscapes. Cooper Marcus & Sachs (2014) offer a case study on Nacadia, a healing forest garden located in Copenhagen, Denmark, which has adopted a design philosophy of evidence-based health design (E-BHD) that has three components:

1. Aesthetics and practical landscape architectural skills and experiences
2. Research evidence and valid practical experience
3. The specific patient groups special needs, wishes, and preferences, the treatment program, and the patients expected rehabilitation process

An important aspect of the above components is that once the design is completed the space must be continuously evaluated so that new research and experiences can be incorporated into its design (Cooper Marcus & Sachs, 2014). Nacadia is an example of how every part of the design is thoroughly examined and constantly changing. The entrance creates a sense of moving into a space of security and safety. A path of tall tree canopies surrounds the entrance that leads out to an open meadow. There is space for social gatherings and solitude, with many seating options and a water theme

that is recurring throughout the property (Cooper Marcus & Sachs, 2014). There is an

indoor area for horticultural therapy, social-area for meetings, and two wood-burning

stoves to create a cozy atmosphere (Cooper Marcus & Sachs, 2014). The treatment at

Nacadia has a salutogenic (health-creating) perspective that focuses on developing

patient strength to overcome their illness and enhance their overall quality of life

(Cooper Marcus & Sachs, 2014). Emphasis is placed on what is strong and healthy

within each patient, no matter their diagnosis, to restore their physical, psychological

and mental balance (Cooper Marcus & Sachs, 2014).

The relational nature of people and place is shaped by the physical and social

factors of health (Hale et al., 2011); relational in this context draws from the disciplines

of anthropology, sociology, geography, ecology, environmental psychology and public

health (Hale et al., 2011). The idea of the 'relational self' suggests that attention is

drawn to the relational dynamics of the self and the landscape (Conradson, 2005).

Suggesting that both play a role in the formation of the individual as a whole person

(Conradson, 2005). In noticing the sensory experiences and how they are interpreted it

allows aid in designing for future aesthetic experiences (Hale et al., 2011). Taking into

account how meaning making is formed, spiritual and value-driven experience is given

with association to the place and their role in shaping health beliefs and behaviours

(Hale et al., 2011). Environmental aesthetics refer to the study of affective responses

the individual may have in relation to the physical environment (Hale et al., 2011).

There are two ways that can be linked to the way people can experience their

environmental experiences: engagement and cognitive interpretations (Hale et al.,

2011). Engagement interpretations are focused on the immediate sensory experiences of individuals while cognitive interpretation is mainly concerned with socially-guided or value-driven interpretations; together, they make up how we experience and respond to our environments (Hale et al., 2011). Aesthetics influence the ecological layers of the human-environment experience in relation to the impact they have on landscape change (Hale et al., 2011). When designing for health it can be challenging in creating places aimed at fostering aesthetic experiences that also connect the individuals to places that sustain heathy behaviours (Hale et al., 2011). Designing and evaluating place-based health promotion strategies such as a therapeutic garden requires researchers and practitioners to understand the qualities of a healthy place and whether a particular place does embody these qualities (Hale et al., 2011). The landscape does not just rely on its physical attributes to be seen as a therapeutic landscape but also the socio-emotional factors of how the individuals experience others in the landscape and how the individual's personal history can affect the relationships they have with the place (Hale et al., 2011). Aesthetics are seen as the most basic way people are able to experience the embodiment of place. The physical landscape is not the only place where therapeutic effects may be felt; there are also the spaces and places imagined by patients that create a key to the construction and manipulation of experiences in the here-and-now as well as the past (Conradson, 2005). The individual needs to feel secure within a familiar environment in order to work with the negative emotions that may arise (Rose, 2012).

2.8 Therapeutic Landscapes

In looking at landscape, either from a fixed perspective or in movement through it, the individual is cognitively and emotionally engaged, which contributes to the individual's experience of well-being (Rose, 2012). When designing within an inpatient setting it can be challenging to accommodate for all users. There are the patients (participants), carers (staff), volunteers, owner (s), and other stakeholders who all need to be taken into account. Note that there is a tendency to recreate 'homely' personalised environments in a hospital, with the aim being to help patients to recover and return to community settings (Woods et al., 2013). Patients attending the care facility may be looking for a retreat, at least temporarily, from their home or community; creating a setting of home may in fact be conducive to the patient's overall health and well-being (Woods et al., 2013). It then seems essential to explore further how to enhance the therapeutic quality within a hospital setting (Woods et al., 2013). Perceptions of therapeutic landscapes is dependent on individual characteristics and experiences (Woods et al., 2013). With the emphasis placed on the individuals being in a space and moving along in their own routine practices of care (Woods et al., 2013). There are examples of places that prompt negative, counter-therapeutic experiences in particular groups of people when feelings of risk, fear, exclusion are prominent (Rose, 2012). Peoples relationship to places can shift over time from positive to negative (Rose, 2012). Overall, it is important to encourage social connectedness by providing social contact and engagement through notions of accessibility for carers and patients (Woods et al., 2013).

2.9 Role of Design

Care farms offer opportunities for the therapeutic experience for all those involved. That is why it is important that landscape architects know how to design for care farms. What then are landscape architecture design guidelines for the design of therapeutic care farms?

3 Chapter 3: Methods

3.1.   Introduction

My research took an exploratory, qualitative approach, using semi-structured interviews with key informants in order to develop design guidelines for care farms. My research plan is outlined in Figure 1, below.
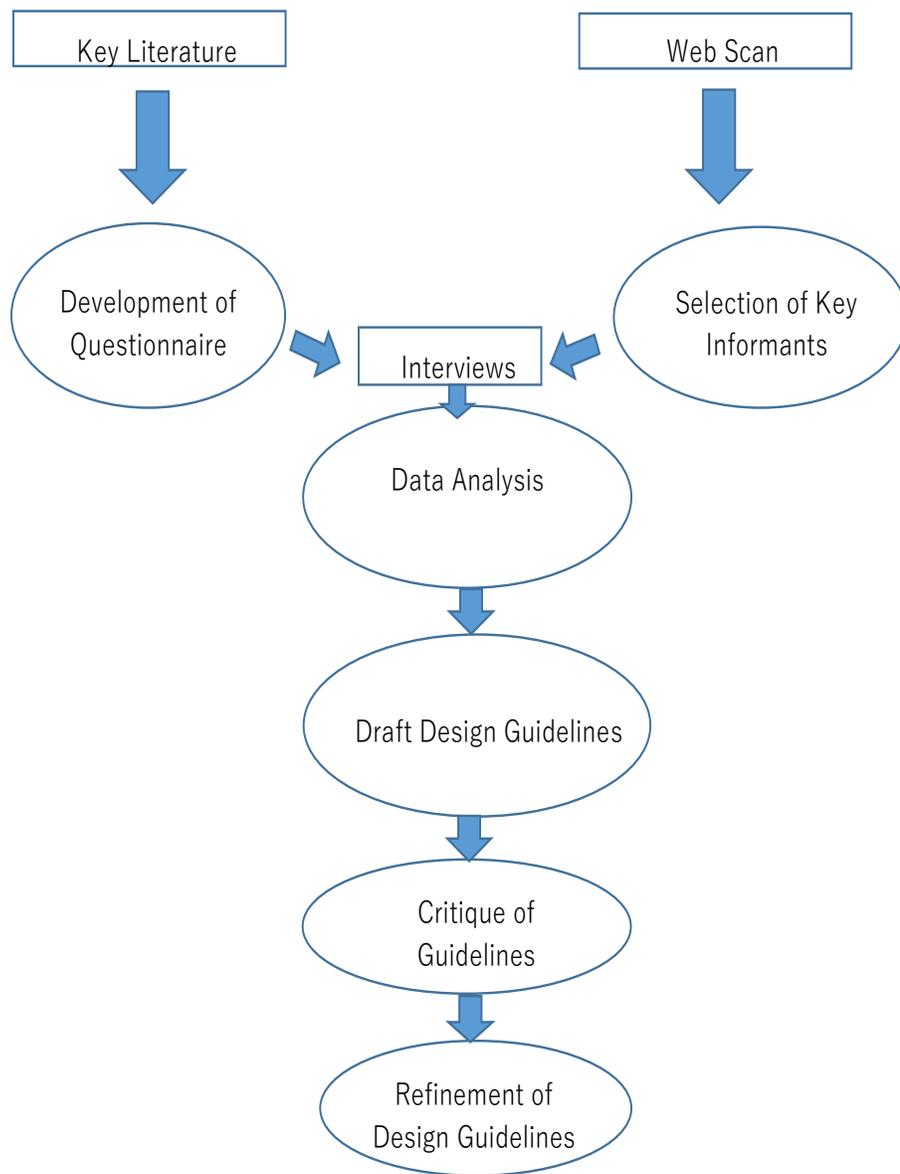
Figure 1: Research Plan

3.2 Development of Questionnaire

I searched for peer-reviewed literature and relevant grey literature by using the University of Guelph's database Primo, Google Scholar, and Research Gate. The key

words I used were: care farms, healing gardens, therapeutic landscapes, green care,

mental health and well-being, multifunctional agriculture, social farming, and addiction.

To further narrow the literature search, I selected literature that related to designing for

care farms, history of care farms, or therapeutic landscapes that were used in hospital

settings. I then identified common categories in the selected literature; a few key

readings were particularly helpful.

My questionnaire was designed based on the common categories developed

from the literature review. These categories included: community space, private space,

dissident space (or flexible), working grounds, educational space, therapeutic space,

layout/operation, people, programming, and physical environment (See Appendix 1 for

Questionnaire).

3.3 Selection of Key Informants

While designing the questionnaire, I developed criteria for selecting key

informants for my interviews. Criteria included key informants: who had contact

information on the web; who worked in fields related to care farm therapy, including

horticultural therapy, therapists (including social and health workers, farmers on care

farms, and volunteers and employees of care farms); and who worked in Southern

Ontario for ease of access for the interviews.

To be invited for an interview, I chose those who were in a relevant field through

data collected in my literature review and, from there, which of these fields were noted

repeatedly in the literature. The criteria included: care farm owners or those who have worked on a care farm; professional training in therapy; professional membership in a therapy association; specialization in care farm therapy; therapy program manager; and wellness coordinator. I also recorded any additional credentials the key informants might have. I then identified eight key informants who met my criteria.

3.4 Interviews

In order to secure interviews, I sent an invitation via email to the potential eight key informants. The invitation letter provided a description of the research project, details on the interview process and the expected outcomes of the study (See Appendix 2 for the Invitation Letter). Of the eight invited to participate, three agreed to an interview. I met with each interviewee either at their place of work or a public place, depending on their choice. The interviews ranged from 60 minutes to 90 minutes. Each interview was recorded with consent from each interviewee. My first interview was with KI1 on March 9 from 1-2:30pm in Guelph, ON. My second interview took place with KI2 from 3-4:30pm on March 10 in Caledon East, ON. My third interview took place in Toronto with KI3 on March 14 from 10-11am.

3.5 Data Analysis & Design Guidelines Development

Analysis of the data began with listening to the interviews a minimum of two times each. I created a chart that was labelled with the key informants on the horizontal axis and the common themes from the questionnaire on the vertical axis. Within the

table, I wrote notes in each section for each of the key informants; this allowed me to note the patterns by reading both across and up and down the sections. The interview data analysis revealed common design criteria and also a few outlying points; these were used in creating the design guidelines.

3.6 Critique

Upon completion of a draft of design guidelines, I sent a copy to an expert who is a co-owner of a therapeutic care farm and who has some landscape design background. This key informant was asked:

1. Do the guidelines cover key categories for design of a care farm? (i.e., Community Space, Private Space, Flexible Space, Working Grounds, Educational Space, Therapeutic Space, Layout/Operation, People, Programming, Physical Environment).
2. Is there anything that you would add?
3. Is there anything that you would remove?

Unfortunately, the critique of the design guidelines by an expert did not come through by the date that it was needed for completion of this thesis, and so this method was unfulfilled.

4   Chapter 4: Results and Analysis

This chapter presents the selection of key informants; the results and analysis of the semi-structured interviews; and the resulting design guidelines. Analysis and categorization of the data resulting from the key informant interviews was undertaken by using the same categories used to develop the questionnaire, and that then were translated into design guidelines.

4.1 Key Informants Selection Criteria

Table 1 Key Informants who met selection criteria

	KI1	KI2	KI3
Care Farm Owner or works on care farm	Y	Y	N (care garden)
Professional Training	HT	Recreational Leisure degree -HT certificate (in process of completion) -Worked with CAMH	Graduate Certificate OISE (community healing & peace building) -CCF certified life coach
Professional Membership	HT certificate	N/A	CCF
Specialization	Working with more vulnerable populations from ages 0-100 in the outdoors using HT and other therapeutic mediums	-Mental Health and Addiction -Schizophrenia	-Mental Health Gardening for mental well-being- -CAMH -Community gardens coordinator and social engagement
Program Manager	Y	Y	Y
Wellness Coordinator	Y	Y	Y

Abbreviations

HT- horticulture therapist
CCF- Certified life coach

Table 2 below provides for how the key informants compared in terms of the nature and degree of their responses. It is noted that there were many similarities in the key informant's responses for how to design for a therapeutic care farm.

Table 2 Conceptual Data Analysis of Key Informants

	KI1	KI2	KI3
Community Space	☀	☀	
Private Space		☀	
Dissident Space	☀	☀	☀
Working Grounds	☀	☀	☀
Educational Space	☀	☀	☀
Therapeutic Space	☀	☀	☀
Layout/operation	☀	☀	☀

People		☀	☀
Programming	✴		
Physical Environment	☀	☀	☀

4.2 Key Informants Interview Data Analysis

This section provides the analysis of the key informants responses to the questions for each of the categories, which included: community space, private space, dissident (or flexible) space, working grounds, educational space, therapeutic space, layout/operation, people, programming, and physical environment.

Community Space

All key informants agreed that within the community space there should be a place that is shaded for participants who are unable to be in the sun due to certain medical conditions. KI-2 and KI-3 both noted that they had a greenhouse on property that was a main gathering spot for groups and was heavily used. In the space where KI-3 works there are only two main spaces which act as community gathering spots, which are the greenhouse and the garden. KI-2 reported that there are other spaces used as community space, such as the program building, and for smaller groups, such as in the barn where the animals are also located. All three key informants noted that the outdoor space is the community gathering space and that all activities and programming that take place outside brings the participants closer over time.

An interesting recommendation was to have a smoking area for the participants as well as the staff. KI-2 noted that this was a common place for participants to meet and chat outside of the group setting. For KI-3, the smoking area would be a place where people do meet; however, smoking is prohibited on property so cannot be implemented at their site. The garden was seen as the main community space by all key informants, where participants did most of their work and where they noticed substantial improvements with participants in working in the garden for the season. KI-3 noted this space is in a smaller site, compared to the other two key informants, and that there was no particular place for a large group gathering that had been established. KI-3 felt that if there was to be a communal seating area there would be a higher incidence of vandalism and smoking in the space, as it is located in a publicly accessible location.

All three key informants mentioned that having movable furniture would aid in having gathering spaces where needed on property.

Private Space

For KI-1, private space was located in a courtyard where there was limited access for the public and this space is focused on programming during working hours. Within this site, participants do have the ability to venture out on their own as the program is located on 640 acres of land just outside Guelph, ON. When participants become more comfortable in the group, they begin to seek out more time to be alone. Participants with mental health issues, specifically anxiety, may take longer to connect with others. At KI-1's location, there is a bench where one to three people can sit for alone time and look out over the river if they wish.

KI-2 shared that they provide participants with private bedrooms where they can have their own space and time alone. There are also staff offices located above the barn on the property where there are trained professionals who chat with participants. With 25 acres, there is also ample space to have private time, such as going for a walk.

KI-3 mentioned again how their space has only two features: the greenhouse and the garden. The greenhouse is what provides the private space that is just for participants. There is no private space where anyone is completely alone. Some of the participants have self-harmed and if they were to be alone completely there could be a

risk. There are private activities that can be provided to certain participants if they would like to work alone but there are always others within the space.

Dissident (or Flexible) Space

For KI-1, there is a strong emphasis on participants being able to plant whatever they like in the garden, and on experimenting with what they design and grow. In the other garden spaces, there are less movable parts and not as much room to design and plant what participants might like. There is freedom, however, in what they can plant in their designated plots, but it is kept neat and tidier than the other space as it is located within a public park.

KI-2 remarked on how they have a teaching garden but it became a disaster as no one maintained what was growing there. There are gardens throughout the property, though, and participants help out whenever they can; they like to be involved. It is required that the gardens be kept as tidy as possible, however. In starting new medications or in changing medications, some participants can experience short attention spans. This can create difficulties when trying to maintain larger garden spaces without added help from staff.

KI-3 notes that this year they are implementing designs that participants would like to see, for example, one participant wants to have a rose garden. The facility tries to meet the needs of the participants while also keeping in mind the requirements for

management of the space. There will be more input from participants in the near future, KI3 stated, as they are now in their second year.

For all key informants, it was noted that keeping the space looking cared-for was important. Having gardens become too wild or looking messy is not beneficial for the overall healing of the participants.

Working Grounds

It was mentioned that there could be some work done in regards to the space designated for staff space. KI-2 noted that staff do not have space to themselves since the space is shared and participants can go wherever the staff can go. KI-1 and KI-3 mentioned that it was not as big an issue for them as they did have time to themselves; their participants are not with them day and night as they are out-patients. For KI-2, there are both in-patients and out-patients. KI-1 also noted that a shed or storage area for farm equipment and tools is necessary. KI-1 said they currently have a tiny shed for storage and it is only accessed if they really need something; it is not well organized. KI-1 mentioned that they rent a room where they take time away from participants and have time to meet for staff meetings on occasion, but it is not a permanent space that they can use all the time.

Educational Space

All three key informants mentioned the benefit of loosely-structured programming. Some participants, especially those on medication for mental health issues, have shorter attention spans than most. It is difficult to stay focused on one activity for a long period of time. The educational space is everywhere. KI-2 explains the main areas for them are in the greenhouse, dining room, program building, barn, teaching garden and gazebo. For KI-1, it is everywhere as well since there is endless space to roam and work in; the main area, however, is in the courtyard space where the educational gardens are; programs are also run outside and learning happens all the time. KI-3 agrees that due to short attention spans educational activities happen as they go along; the participants who attend are there to socialize, be heard and be listened to. With a lot of the activities being hands-on and in the garden, seeding, harvesting and planting helps keep them more focused.

Therapeutic Space

All of the spaces that were discussed with the key informants are considered to be therapeutic spaces. What makes them so are the people, features in terms of design and the programming that takes place. These spaces are loved, explains KI-1, with emphasis placed on giving back to the earth; with the added programming run directly by a horticultural therapist there is healing taking place constantly. The openness of the landscape and being out in nature allows the participants to really feel what they need to feel. KI-1 says that the elements of nature really push the

participant's boundaries. Being in these surroundings pushes participants to move through what they are feeling in a supportive space.

All the spaces offer something unique to the participants who are attending, but they all have an emphasis on being there together and on growing. All key informants noted that they have or are planning to have flower beds, which can be used to make flower arrangements and bouquets – considered to be a very therapeutic process. Knowing that the participants are allowed to make mistakes helps in the growth that is felt in shaping a supportive group. All key informants said the garden was the main focus for where a lot of the growth and work took place for the participants. KI1 added that having comfortable and movable seating is important, for those with many different types of accessibility issues. KI-1 also noted that being close to water or having access to natural features such as water is really important and is very healing. KI3 is hoping to create more space for medicinal herbs, a sensory garden, and a cutting garden; overall, keeping the space looking cared for and loved is important.

Layout/operation

Working with the seasons was mentioned by all key informants; participants are working outside and spending most of their time outdoors. In terms of specifics for design, KI-2 said not to include invasive species. KI-1 noted that there are triggering plants that should be avoided as well, such as poppies and roses for some. KI-1 also noted that some garden beds may trigger certain participants, depending on their history, as the garden beds can resemble a grave. There should be no toxic plants, as

there are children who use the public spaces; there is also the chance, as noted by KI-1, that patients who have dementia may ingest plants. KI-2 mentioned a number of species that, through trial and error, were found to succeed in the gardens. Sunflowers are a big hit, as mentioned by all key informants; they also attract many pollinator species which can be a conversation piece for some. Key informants also noted other species that are beneficial: Lavender, Lemon Balm, Mint, Strawberries, and edible plants that can be eaten right from the garden. In KI-2's site, there is space for animals next to, and in, the barn; chores are done by volunteers and participants. With the changing climate, adds KI-2, it is important to think about planting drought-resistant plants if there is limited access to water; there should be consideration given for more water outlets when designing, especially if you have many gardens throughout the property.

In working with participants who are more vulnerable, surveillance can be problematic. All key informants mentioned how some participants are already suffering from paranoia and the added surveillance would not help in their healing journeys; they are looking for reprieve away from the urban setting and from their everyday lives.

KI-2 discussed that making the space feel safe and cozy is important because this allows participants to feel that they can open up. A lot of these participants have struggled throughout their lives and, when they arrive, may feel socially isolated. KI-3 comments that in providing a welcoming and safe space participants can begin to open up socially. KI-2 and KI-3 both mentioned how the participants can have a say in design of the space as well.

People

All key informants noted that there were not spaces that were separate from the participants where they could have alone time. As well, the process of getting design approval is dependent on the context of the care farm's organization; for KI-2 and KI-3, this may take longer than for KI-1, as they are within larger organizations. For KI-2 it depends on if there is also enough funding, and for KI-3 there are certain infrastructure limitations on the property. KI-3 states that they do not have to worry about funding.

Since the programming takes place outdoors and there are many different accessibility needs, all key informants mentioned the need for movable seating. Many participants have physical restrictions; for example, those in a wheelchair require certain design features such as raised garden beds and accessible paths. Seating that is comfortable and can support all body types is recommended.

KI-1 and KI-3 mentioned how their staff have to have constant training for working in the setting they are in. There is a wide variety of participants with different needs; without on-going training, this can be quite challenging. KI-2 said it would be more beneficial to have further training for staff on horticultural practices as they may be trained as social workers only. There are volunteers who have sufficient knowledge in horticulture but it would be more well-rounded if staff could better understand what is going on in the gardens.

KI-3 has observed the importance of showing off what the participants have grown. With a weekly market stand in a public space near the gardens, participants

have the ability to sell their produce and socialize with those outside of their main social groups. Both KI-2 and KI-3 said that they host a plant sale a couple times throughout the growing season as it is also a good way for the public to see what they are doing and to engage with participants.

Programming

All key informants mentioned that there are many programming opportunities. All programming takes place outside, depending on the weather; in all three sites, however, there is a place where participants can go inside if need be. KI-1 said that a lot of their programming involves sitting, walking, planting, and storytelling, and that it really depends on the season. For KI-2, programming provides for ample social interaction which is really important for what they try to focus on. There is constant programming taking place, and some participants, in their free time, still do chores and engage with the site. KI-3 plans to start a cooking program so that participants can eat the food they are growing, connecting them to the site at a deeper level. Other activities that take place on a daily basis, notes KI-3, are weeding, pest management, selling, planting, making the produce look nice for the garden stand, overall cleaning and maintenance.

Physical Environment

The physical environment of these spaces offers not only educational experiences but also access to understanding better self-care, in terms of mental health and well-being. Through engagement with certain landscape elements - structures that offer refuge and comfort - the participants have an opportunity to decide if they are willing to take the next steps on their recovery journey. These spaces are about empowering participants and to let them know that they are supported in a safe environment, surrounded by nature, where they can be supported in their individual healing journeys. KI-3 notes that these therapeutic spaces are a constant in the participants' lives, creating a calming environment that provides a reprieve from their difficult lives. KI-3 explains that they never really transition out of a place where they no longer need the connection to the therapeutic and healing benefits that these landscapes provide.

4.3 Development of the Design Guidelines

Based on my data analysis, these are the design guidelines that were developed from the analysis of the interviews with my key informants.

Design Guidelines for Therapeutic Care Farms

Key programming and site planning guidelines that should be taken into account when designing for a therapeutic care farm:

Community Space

1. Design for gathering spaces where participants can meet as a group and for social interactions

    a. Create a communal space

    b. Design a space for socializing to develop interaction and increased connections with/between staff and other participants

2. Provide a designated area for participants that is separated from staff

    a. Provide opportunities for privacy

    b. Provide opportunities for independence

    c. Minimize surveillance when possible

    d. Provide a smoking area for social opportunities

Private Space

3. Provide a separate space that is available only to the staff for:

    a. Time away from participants

    b. A space for relaxation

    c. Opportunities for solitude

4. Design for private spaces where participants can have alone time but are not isolated through:

   a. Private seating by a water feature that provides sensory experiences linked to hearing, seeing, touching, and smelling

   b. Seating space that is sheltered from the elements such as sun, wind, and rain

   c. A comfortable yet intimate space in an enclosed and protected space for one-on-one time with a counsellor

   d. Individual garden plots within the communal garden to grow what each is able

Flexible Space

See design guidelines 4d and 6b.

Working Grounds

5. When designing the space keep in mind maintenance requirements; keeping the space looking cared-for aids the healing journey of those attending the care farm

   a. Use materials for paths and walkways that minimize the need for maintenance and has an organized appearance

Educational Space

6. Design for all patient types being served and for the needs of the most vulnerable population

    a. Provide shaded sitting areas for those who cannot be in the sun, minimizing side effects generated from some medications

    b. Provide comfortable and movable seating and tables, and a variety of educational spaces

    c. Provide seating throughout the space for those who need to take breaks often

    d. Provide a variety of heights of raised garden beds for increased accessibility to all participants

    e. Design for overall accessibility for all who attend

    f. Create a welcoming environment that promotes a sense of comfort and safety

    g. Design for engagement and connection to the natural surroundings

Therapeutic Space

7. Consider the entire site as a healing environment where participants can find reprieve from life stressors, addictions issues, ailments, and mental health issues. From the moment the patients enter the premises they should feel assured of the facility's commitment to their health and well-being.

8. Integration with the farm's natural elements and spaces will enhance the therapeutic value of the farm through ecological restoration and conservation efforts

Layout/Operation

9. Design an inviting entrance that shows emphasis on care, feels welcoming and safe, and expresses freedom

10. Design for accessible all-season activity with day/night use of the space incorporating elements such as:

    a. Lighting

    b. Water

    c. Infrastructure for events (e.g., music) and related activities

    d. Signage for information/orientation and direction (place making)

    e. Structures to extend seasonal growing

11. Provide weather-proof structures to house materials, tools and equipment used on the farm

People

12. Provide for reasonable surveillance, but not overly intrusive as certain participants may be triggered or paranoid from being watched or observed

13. Design for spaces that are communal but also offer privacy with minimal visibility if needed

Programming

14. In designing space for specific therapeutic programming, consider engaging with professionals who are skilled in this field, e.g., healthcare professionals

15. Design landscapes, spaces and elements that are supportive of programs/activities that are beneficial to health outcomes, which can include:

    a. Horticulture therapy workshops

    b. Animal husbandry (when available)

    c. Community engagement (for market stand and plant sale)

    d. Social interactions (with staff and other participants)

    e. Flower garden (for bouquet arrangements)

    f. Sensory plant species (unless they are trigger plants); examples include, Sunflowers, Lavender, Chamomile, Roses, Chives, Geranium, Succulents

    g. Avoid triggering, toxic and invasive plant species

    h. Edible food gardens for engagement

16. Staff should be trained and educated about the use and benefits of the space, and about protocol for patient use for the garden's continued success and resiliency

Physical Environment

17. The landscape architect should facilitate a participatory design process with staff and participants from the beginning

18. Design for environmental resiliency through:

    a. Water efficiency

        i. Grey and black water management

        ii. Rain water collection systems

    b. Energy efficiency

     i. Solar panels

     ii. Thermal comfort

     iii. Planting trees for the purpose of providing shade, reduces cooling costs

     iv. Windbreaks to slow winds near buildings, reducing heat loss

     v. Green roofs to cool buildings

c. Climate change adaptation, considering

     i. Temperature changes

     ii. Species survival

     iii. Shorter or longer growing seasons

     iv. Extreme precipitation fluctuations

5   Chapter 5: Discussion and Conclusion

5.1 Designing for Therapeutic Care Farms

The research has shown that, when designing for therapeutic care farms, there are certain considerations to take into account. The data gathered from the key informants informed specific guidelines when designing for care farms. When designing for a therapeutic care farm, landscape architects need to take into consideration that they are designing for a more vulnerable group of people. Design considerations should include: accessibility throughout the space, medical conditions that require certain design features such as shaded seating areas, smoking areas for both staff and participants, and a variety of gardens such as sensory gardens.

During the design process for therapeutic care farms, it is important to involve not just the design team but all stakeholders, including participants. Being involved in the design of the care farm helps participants in creating a connection that can aid in the healing journey they are on.

5.2 Role of Landscape Architects

There is definitely a role and a need for landscape architects in this area of design. There are landscape architects who have backgrounds in designing for

therapeutic landscapes. However, their expertise may be more generic, while designing for care farms is a specific niche within that larger category.

If a landscape architect has the opportunity to design for a care farm, I recommend that therapy specialists be involved in the design process. With input from horticultural therapists, care farm owners, care farm workers, social workers, and those in the health sector, there can be more rounded input and specialized knowledge that would result in a more successful design. The people you are designing for have particular needs and are quite sensitive. Having that broader support and working with a team from different fields of work can result in landscape architects creating successful designs for care farms.

5.3 Limitations of the Research

There are a limited number of care farms within North America and very few within Ontario. Initially, I reached out to eight professionals in the field; in the end, I was only able to connect with three. I found that the time frame of a MLA thesis was limiting, as some of the people I did try to connect with are quite busy and I did not hear back from them for over a month, if ever. In terms of finding expertise on the topic, I had to patch together different areas of knowledge as there is very limited research on the topic. I was, however, very fortunate to be able to connect with the three key informants who provided me with in-depth knowledge on design requirements for care farms.

Unfortunately, the design guidelines were not able to be critiqued within the timeframe of the completion of my thesis and so this was another limitation to the final outcome.

5.4 Future Research

In looking to the future I hope these design guidelines will be utilized when one has the opportunity to design for a therapeutic care farm. These are guidelines that are based on limited key informant interviews. It would be useful for similar research to be conducted in other jurisdictions where care farms exist to allow for future revisions and adjustments to the guidelines, as the field is constantly changing, growing and expanding.

5.5 Conclusion

Designing for therapeutic care farms is a new area of specialized knowledge. Through my research and my final design guidelines I hope to have made a contribution to landscape architecture and those interested in designing for care farms.

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Appendices

Appendix 1: Questionnaire

Designing for therapeutic care farms
Key Informant Questions

Physical Environment
- **Community Space**
- Is there a space where participants can gather as a group?
- **Private Space**
- Is there a private space for participants?
- Are there spaces for alone time?
- **Dissident Space**
- Are there non-conventional spaces that allow participants to shape their own spaces?
- **Working Grounds**
- Where is the placement of the working grounds?
- Were the working grounds for staff taken into account when designing the care farm?
- **Educational Space**
- What types of educational space do you have on the grounds?
- What have you found has benefited the participants' experience?
- **Therapeutic Space**
- Are there therapeutic gardens?
- Horticultural therapy sessions?
- Certain spaces scattered throughout?
- Where & what are the healing spaces you have and what makes them so?
- Does the farm's landscape design contribute to participants feeling assured of the commitment to their health and well-being?
- Did you use a Landscape Architect to help design your facility?

Layout/ operation
- Do you find the aesthetic experience that individuals have on the farm contributes to healthy behaviour?
- If so, what aesthetic experiences make that contribution?
- What is the role of nature on the farm in the therapeutic experience?
- How does the space contribute to an improved sense of identity?

- What are the dominant design elements in the space?
- How do participants feel in the space, from what they have told you?
- For the farm, are the following qualities of importance:
  - Surveillance
  - freedom
  - openness
  - privacy
  - refuge
  - social interactions
  - homeliness
  - contact with nature
- Are there specific species of plants that are to be avoided you have noted in designing the therapeutic landscape?
- Are there specific species of plants that are better used to create connection to the space more than others?
- Have you used sensory plants in your designs?
- Have you done trial and error in regards to what plant species work well in the given environment and which do not?
- Are you continuously evaluating and adjusting the space to make sure participants are having positive and productive healing experiences?
- Does the entrance to the farm feel welcoming?

People
- Stakeholders
- Owner

- **Staff**
- Is there a space where participants and staff can get to know each other?
- Do staff have a separate space that is only available to them?
- Do staff have a say in designing the space?
- Are all staff trained and educated about the use and benefits of care farms, and about care farm participants?

- **Participants**
- Do participants have a say in designing their environments?
- Have you designed for all patient types or for specific group needs?

- Have you noticed a relational dynamic between the participants and the landscape?
- Do you think the socio-emotional factors and how the individual experiences others effects how they react to the landscape?

- **Visitors**
- Do visitors have a place where they can feel at ease to visit with participants on the care farm?
- Is the environment welcoming to visitors, where appropriate?

Programming
- What types of activities take place in the space?
- Is the design of the space suitable for the activities you would like to run?
- Is there encouragement and opportunity for social connectedness by providing social contact and engagement through accessibility?

Physical Environment
- What are some key landscape elements of the space?
- What has worked and what has not worked?
- What have people said about the landscape elements?
- Do you find that through engagement and cognitive interpretation, participants can better experience their environment?
- Do you see therapeutic landscapes as spaces of transition, intended to prepare the user for returning to life in the community?

Cognitive interpretation: brain and sensory interpretation of the given environment

Appendix 2: Letter of Invitation

UNIVERSITY
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LETTER OF INVITATION TO PARTICIPATE IN AN INTERVIEW

Designing for Therapeutic Care Farms

My name is Tamara Freeman and I am a student in the Master of Landscape Architecture program at the University of Guelph. I am working under the supervision of Professor Karen Landman to complete my master's thesis.

I am conducting a research project on designing for therapeutic care farms. Care farming is the therapeutic use of farming practices in providing health, social or educational care services for a range of vulnerable people. This includes but is not limited to those with mental health problems, people suffering with substance abuse, adults and children with learning disabilities and disaffected youth. Literature on the process of designing for care farms is limited.

The purpose of this project is to establish design guidelines for landscape architects when designing for care farms. I have identified and analyzed design-related themes within the academic literature that relate to care farms. I am now conducting interviews to establish a better understanding of care farms in Ontario and what is required in the process of designing for these farms. From the interviews, I will develop landscape design guidelines.

You have been contacted in the hope that you will agree to be interviewed. If you agree, the interview should take 45-60 minutes. Interviews can take place at your place of work or by phone. I am hoping to record interviews to analyze; please let me know if you agree to being recorded. If not, I can simply take notes.

If you are willing to participate in an interview, or have further questions about the project, please contact Tamara Freeman at freemant@uoguelph.ca.

I look forward to hearing from you.

Sincerely,

Tamara Freeman   Professor Karen Landman
Master of Landscape Architecture Student   Faculty Supervisor
University of Guelph   SEDRD, University of Guelph
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