



Where birds felt louder: The garden as a refuge during COVID-19

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ARTICLE INFO

Keywords:

Affect
Attunement
Domestic nature
Non-representational theory
Therapeutic landscapes
Garden

ABSTRACT

During the COVID-19 pandemic, many countries experienced something of a boom in interest in gardening. Gardens have long been considered as refuges into which we retreat to escape various struggles and challenges. In this study we examine the characteristics and functions of the garden as a refuge during the period of increased garden interest associated with the COVID-19 pandemic. Analysis of qualitative results about garden experiences from 3,743 survey respondents revealed intertwining garden and emotional geographies. Utilising non-representational and therapeutic landscape theories, we found multifarious and heightened experiences of non-material aspects of gardens; that is, the sensory and emotional aspects. People experienced, for example, a sense of joy, beauty, and reassurance, a greater attunement to the natural world and an increased sense of nature connection than they had at other times: birds *felt* louder. These heightened sensory and emotional experiences had therapeutic benefits, across age and geographical spectrums, during these difficult times. This research improves our understandings of the positive potential of non-material aspects of gardens in the creation of therapeutic landscapes in and beyond COVID-19.

1. Introduction

Everything happens much more attentively and intensively. Even the birds are (felt) louder. (Germany, 63yrs)

Gardens as places of refuge are an ancient and enduring feature of cultural and religious mythologies, knowledges and practices, and the subject of much cultural scholarship (Johnson, 2012; Atkinson, 2007). The notion of the garden as a refuge is an experienced and/or imagined place, idyllic and safe, away from struggle or hardship. Here, humans co-exist harmoniously with nature (Pogue Harrison, 2008). Whether imagined or real, gardens as refuges signify peace, comfort, freedom and hope, and are sites of pleasure, contentment, “spirituality and sanity” (Kirkpatrick, 2006) (p. v).

Home and communal gardens are becoming a topic of increasing interest in health, geography, social and environmental science

disciplines (2006; Howarth et al., 2020; Spano et al., 2020; Audate et al., 2019; Malberg Dyg et al., 2020; Ossola et al., 2019). This has been particularly evident during our most recent global public health crisis, the COVID-19 pandemic, which triggered a gardening boom (Atkinson, 2020; Mullins et al., 2021). One reason for this renewed interest is the re/turn to the practices of gardening during difficult circumstances that is partly about survival, as was the rise of ‘austerity gardening’ during periods of war or economic depression (Milthorpe, 2019). However, contemporary evidence suggests that people garden for reasons that are more-than-material (Guerlain and Campbell, 2016; Stuart-Smith, 2020), such as to find peace of mind, pleasure, respite or relief (Kingsley et al., 2019); in other words, to access the non-material elements of the refuge garden space. If and how these factors played a part in the COVID-19 gardening boom is the question at the heart of this paper. The specific aim of this research was to explore the non-material aspects of the garden refuge as they were experienced and articulated by gardeners

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<https://doi.org/10.1016/j.wss.2021.100055>

Received 22 March 2021; Received in revised form 9 August 2021; Accepted 23 August 2021

Available online 25 August 2021

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during COVID-19, and to theorise the potential significance of therapeutic garden landscapes for a post pandemic future.

This work is part of a larger study, in which our aims were twofold: Firstly, to examine whether gardens and gardening have greater significance during COVID-19 compared to pre-pandemic times; and secondly to understand how people and communities across the world might benefit from gardens and gardening during COVID-19. To achieve this, we designed a study to explore: i) how COVID-19 affected gardeners, garden management, and motivating factors for gardening; ii) whether the use of domestic gardens changed; and iii) what people valued the most about gardens and gardening both at home and in communal gardens.

This study reports on a close examination of selected responses to open-ended questions contained in a larger survey. We apply a targeted theoretical and analytical approach to the qualitative survey data that specifically pertains to non-material experiences of gardens; in particular, the sensory and emotional.

This study design is informed by non-representational (Boyd, 2017) and therapeutic landscapes (Gesler, 2017) theories. Our examination of non-materiality in gardening is cognizant of a complex broader socio-environmental context, acknowledging the relational nature of gardens and gardening and our human experiences in the space. Sensory and emotional experiences of gardens, for example, exist in relation to the material, social and political elements of gardens. While a garden is most obviously material, like any space, it is also “social, imagined and lived” (Boyd, 2017) (p40) and “imbued with experience and meaning” (Gesler, 2017) (p3). Likewise, emotional experiences are fundamentally socio-spatial (Boyd, 2017) and relational (Slaby, 2019). Moreover, the umbrella context of the COVID-19 pandemic, and the various social and health policy conditions that directed people’s lives during this time, is also multi-dimensional, as it is:

not just a biological problem, it is also a human problem. And COVID-19 is not an isolated problem; it is deeply intertwined with human meaning, ethics, life-style, justice and politics. (Lewis, 2020)

In this paper we explore the physical, sensory and emotional geographies of gardens and associated benefits for health and wellbeing, as expressed by surveyed gardeners during the COVID-19 pandemic. During this time, people experienced both a heightened attunement to the natural world and a greater sense of nature connection. We demonstrate that the COVID-19 garden became a therapeutic landscape where cultivation, sensation and emotion intertwined.

2. Methodology

A survey to measure the effects of COVID-19 on gardeners was distributed internationally to countries that were experiencing lockdown measures between June to August 2020. The survey was available in English, Spanish, German and Vietnamese and included a combination of multiple choice, 5-point Likert scale and four open-ended questions, as well as demographic information. Ethics approval was granted by the Swinburne University of Technology Human Research Ethics Committee (Project ID: 3031) and the University of California Davis Institutional Review Board (Project ID: 1602882-1). A total of 3743 survey responses were gathered. The results of the multiple choice and Likert scale responses are not the focus of this paper. This paper concerns selected data from responses to the survey’s four open-ended questions, which deliberately invited subjective, experiential responses. These were:

- Why did you decide to garden this year?
- Has COVID-19 changed how you think about the value of gardens for you and the community? Please explain.
- Who or what has helped or provided extra support to you with gardening during COVID-19? Please tell us about more about this.

- Is there anything else you would like to tell us about how COVID-19 has impacted the way you garden or your ability to garden?

Appendix A details the demographic information of the respondents who contributed to each open-ended question. These responses were analysed using thematic analysis techniques following an inductive, iterative approach. This process involved three members of the research team [PM, LD, JK] individually and separately coding the responses, then sharing each set of codes electronically. Together, we then undertook a reflexive discussion process (Braun and Clarke, 2019), a cycle of discussion, reflection and re-visiting of the raw data to generate the initial themes and sub-themes. This process continued over 6 weeks, until the final themes were generated and confirmed in late 2020. These included: being safe (physical and mental wellbeing); biophilia; lockdown gardening practices; building communities; reacting to changing food supplies; and political gardening.

The categorised data was then subject to an additional phase of reflexive analysis, utilising dual lenses of non-representation and therapeutic landscape theories. Applying the same thematic analysis techniques, initial analysis was undertaken by the main author of this paper, and revisited by the authors experienced in qualitative analysis [LD, JK] in early 2021, before being confirmed by the research team. This phase generated discrete sub-section themes and sub-themes related specifically to the non-material aspects of the garden experience – that is the emotional and sensory geographies of COVID gardens - and the findings from this are the focus of this paper.

2.1. Theoretical framework

Applying non-representational principles, we examined the data for what was “present in experience” (Thrift, 2007), specifically what Cooper (Cooper, 2006) (p50) refers to as “initial” experiences of gardens, and responses that indicate feeling, sensing, or the pre-personal (Boyd, 2017), rather than that which concerns a cognitive or representational reality. We approach affect via Boyd (Boyd, 2017), who explains this as the force or capacity that is present in and through our bodies as we act with other humans as well as the non-human, animate and inanimate. Further, affect is an embodied experience of place (Gorman, 2017) and part of life’s ‘messiness’ (Thrift, 2007). Awareness to the multi-dimensionality and relationality of gardens aids our understanding of the experiences people have within them.

The complementary theoretical framework informing our analysis is therapeutic landscapes theory (Gesler, 2017). With roots in the examination of the healing benefits of spiritual sites of significance, the therapeutic landscapes concept now has application to a much broader field of geography (Bell et al., 2018; Mossabir et al., 2021). Reflecting on the varied use of therapeutic landscapes in health and cultural geography, 25 years following its initial articulation, Wil Gesler (Gesler, 2017) explains that a therapeutic landscape is not a static geographical ideal. Rather, it is a framework for understanding the multifarious constituents that comprise a place – actual and imagined, sensory and symbolic – that individually or collectively benefit health and wellbeing. A therapeutic landscape, therefore, can be an everyday place (Mossabir et al., 2021), including the home or communal garden.

The following three sections of our paper discusses the findings and their significance to the research questions. The three thematic categories generated through the reflexive analysis process provide the structure: The garden as refuge; gardens and greater affect; and attunement with nature. Each section begins with an overview of the relevant findings, then moves to a discussion of their context and relevance to the broader literature. Appendix A contains a full record of the sub-set themes and subthemes, and also highlights the non-material features contributing to the therapeutic garden landscape. In the following, each quote is from a unique contributor.

3. The garden as refuge

Respondents perceived their gardens as sanctuaries, places to which they could retreat to lessen the stresses of the COVID-19 pandemic. This was articulated in a variety of ways; the garden became for many a refuge, a “private sanctuary”, oasis or haven.

The garden was my/our little safe universe in a very uncertain and somewhat dangerous time... We have learned to appreciate the so far very high value of "own land, own refuge" even more. (Germany, 57yrs)

COVID gardens were places of safety during what people felt were unsafe times – unsafe physically, mentally and emotionally. The escape was partly a physical one from COVID-19, which was placing people at risk outside the garden space. But it was also a psychological, emotional or symbolic form of refuge:

My garden plot is large enough so I can be in it without a mask and I breathe easier and get to share a smile with other people without the cover. It gives me hope for a better life and better food:) (USA, 67yrs)

Gardens gave people the opportunity to care for themselves, the earth and for others, and there was a strong non-materiality associated with these experiences – the quote above suggests three for example: ease, generosity, and hope.

The refuge was also experienced as a multi-dimensional space, where geography met emotion, sensation, community and mental wellbeing. This interconnectedness is exemplified in the following example:

For me personally, gardens have a very high value: Finding peace/relaxation, experience of nature, cultural experience (fruit/vegetable cultivation), being creative, experiencing limits, physical and mental balance... With regard to community gardens such as allotment gardens: [add] experiencing community [and] cultural exchange. A life without a garden - and be it only a balcony or terrace - is unimaginable for me. (Germany, 45yrs)

Humans regularly seek actual and/or imagined sanctuary during times of social and political upheaval (Miltthorpe, 2019) when we are typically overwhelmed and hope is lacking. It is a behaviour closely associated with ill health, particularly mental health. Gardens have been utilised as an intentional therapeutic tool historically, providing ‘asylum’ to enable recovery from mental illness. Renowned neuropsychologist Oliver Sacks observed: “In forty years of medical practice, I have found only two types of non-pharmaceutical ‘therapy’ to be vitally important for patients with chronic neurological diseases: music and gardens.” ((Sacks, 2019) (p243). Contemporary gardens continue this practice, albeit informally, as important sites for maintaining and restoring mental health (Egerer et al., 2018). There is ample evidence proving a garden’s role in the reduction in stress, depression and anxiety related disorders (White et al., 2019). This pandemic confirms that we continue to seek sanctuary in gardens during difficult times for the purpose of mental health. (Sacks, 2019)

The causal role of non-material factors in mental health is under researched (Soga et al., 2017; Markevych et al., 2017). Current research, for the most part, attributes health benefits of gardens to the physical exercise of gardening (Malberg Dyg et al., 2020), building social capital and community (Spano et al., 2020), healthy eating (Machida, 2019) and a bio-physical reduction in cortisol levels (Van Den Berg and Custers, 2011). There is little documentation of the contribution of the sensory, imagined or symbolic garden experiences on health and wellbeing, such as peace, hope and relaxation that this research has foregrounded.

Some studies demonstrate gardens and gardening benefits in intangible ways such as through addressing “symbolic deprivation” (Guerlain and Campbell, 2016), providing solace (Marsh and Spinaze, 2016; Marsh et al., 2017), improving ‘mood’ (Hayashi et al., 2008), enhancing values development in children (Kellert, 2002) and contributing to

overall ‘life-satisfaction’ (Cheng, 2016). There is also evidence that gardens can be most effective for health when they facilitate relaxation (as well as activity) (de Bell et al., 2020). More recently, Atkinson (Atkinson, 2020) observed that gardens were the source of meaning for people who were otherwise left feeling unfulfilled during COVID-19 lockdowns. This research extends our understandings of how the garden functions as a therapeutic landscape for mental health. From this research we can see that the experiences of the non-material aspects of gardens contributed to multiple eco-psycho-social benefits. The COVID-19 garden space was experienced as a refuge - physically, metaphorically and emotionally - and the ‘refuge’ played a key role in enabling the space to function as a therapeutic environment.

The respondents to our survey were gardeners with prompt access to gardens. For them, retreating to a garden during COVID-19 was relatively simple and accessible. What is unknown is what or how gardens might be part of the lives of people without personal access to ‘paradise’. However, we know from earlier research that green space access can be determined by factors such as socio-economic status, city size, social inequalities and ethnicity (Watkins and Gerrish, 2018; Flocks et al., 2011; Reynolds, 2015). There is a risk that the benefits might only be the privilege of those with access to land and the resources to garden. Nevertheless, while recognizing the real access barriers to gardens, it is also important to note the long tradition of gardening and agricultural practices as modes of resistance, self-determination, and liberation by members of historically marginalised communities (Reese and Cooper, 2019; White, 2018).

4. Gardens and greater affect

Participants experienced numerous non-material aspects of gardens during COVID-19 and their responses illustrated how these enabled them to cope with pandemic stressors and pre-existing emotions.

When asked if COVID-19 had changed the way they valued their gardens, many people answered using the language of the feelings and emotions. Short comments expressing simple gratitude were common, such as “I am extremely grateful that we have a garden”. Respondents noted their sense of gratitude had increased during this time: for example, “I am more grateful than before to have a garden”; “I now appreciate the garden even more”; and “[I have] a higher gratitude for what I have”. Some noted they were more appreciative of other aspects of gardens than they had been pre-COVID-19.

[The garden] is magnificent. I have a much greater love and respect for the beauty and power of it all. (USA, 48yrs)

The ‘greater love and respect’ for ‘beauty and power’, mentioned above, exemplifies the heightened appreciation many felt for the non-materiality of the garden.

While there was more appreciation for the aesthetics of gardens for some, others valued feeling more peaceful, happier, or joyous: “more joy of life”. There was also a strong sense that respondents valued the freedom the garden gave. For example, people of different ages and across various countries commented: “Our garden was in this time a piece of freedom in green”; and “[our garden is] a small piece of freedom in nature”. These non-material sensations are interconnected with the material agency of the garden, and physical acts of gardening that were taking place with in it. That is, sensations of beauty, peace and freedom were embodied experiences of gardeners, enabled by the discrete garden space, and somehow altered during the pandemic.

The idea of freedom in the garden is juxtaposed against the image and reality of the outside spaces during the pandemic, where normal freedoms of movement and physicality (social distance) were restricted by public health directives. Participants mentioned the freedom of “breathing without a mask” and being closely alongside family members and neighbours – things that were prohibited in public spaces. People also experienced the freedom of experimenting with gardening: moving

plants, sowing seeds, eating new vegetables, and trying out different cultivational techniques. Not only did people note these physical sensations, they also commented on the related senses of mental and emotional respite they experienced: “[I value] freedom from stress. Peace and quiet”. The physical space and gardening activity allowed a therapeutic mental escape from the confinement of pandemic preoccupations.

Extending this idea of greater affect further, during this time memories of people who had died and the acute consciousness of grief and sorrow also appeared to be accentuated. Some respondents replied to this open question with a comment about death or grief, for example:

My last grandparent passed away recently – I associate gardening with all my grandparents and this was a way to hold onto something from all of them. (Australia, 32yrs)

Participants noted they felt better able to cope with grief through gardening. Gardens share a close association with death and grief – in poetry and in life (Pogue Harrison, 2008; Machida, 2019). This occurs not only through the constant reminders of death that occur in the garden – the cycles of plant life and death are unmissable. Gardens have also been a strong feature of end of life and hospice care. Indeed, hospice gardens have been likened to sanctuaries – places of refuge and beauty (Worpole, 2009). Moreover, in other research people have turned to home gardens to (re)connect with people whom they have loved and who have died, experience comforting memories (de Bell et al., 2020), a spatial-spiritual connection (Marsh et al., 2019) and continuing bonds between living and dead (Jonsson and Walter, 2017).

In our research there is evidence of another recurring non-material experience: reassurance.

When the world wearies (which is has) and society ceases to satisfy (which has happened due to social distancing) there is always the garden. (USA, 62yrs)

Reassurance, or the removal of doubts or fears, was expressed in various ways. People felt a surety from gardens: they experienced “purpose”, “accomplishment”, and “stability”. The garden provided people with a reliable, knowable environment that was unlike the unknown chaos of the pandemic:

Gardening has been my salvation and I’m very grateful I can surround myself with beauty as a buffer to the depressing news COVID brings each day. (USA, 73yrs)

Moreover, some gardeners in our study felt they had been re/acquainted with life’s “essence”, or with that which was felt to be of fundamental importance, during COVID-19:

[F]or society ... a reflection on the essential and original has taken place, which hopefully will continue. (Germany, 27yrs)

Atkinson suggests that during COVID-19 people were driven to garden in the hope of having nature’s resilience confirmed (Atkinson, 2020) – to know that nature had things still under control, so to speak. The reassurance of the endurance of the garden – despite the serious threat to life and normality – perhaps assisted people to cope by providing an opportunity to feel in control, an additional non-material benefit (James and Kearns, 2020). The opposite, perhaps, of the negative affect attributed to the powerlessness and loss felt in the midst of environmental destruction (solastalgia) (Albrecht et al., 2007).

Across age and geographical spectrums, gardens during COVID-19 were sites of heightened sensibilities and sensuous dispositions (Pateron, 2009), where feelings, moods and memories were experienced acutely (Cooper, 2006). Participants made connections between these experiences and a greater appreciation for gardens and their multiple benefits. These places of ‘sensory richness’ have been shown to enhance health and wellbeing (Gorman, 2017). In our study, the embodied experiences found in gardens during COVID-19 resulted in therapeutic

experiences of joy, beauty and pleasure. The ‘lifting of spirits’ that results from experiencing sensations like solace, freedom or reassurance speaks directly to the health-enabling elements at work in the garden.

5. Attunement with nature

Gardens enabled people to immerse in and reconnect with nature, and they articulated positive consequences from this experience.

[Gardening is] the best mental, physical and spiritual activity I can do at any time, but the COVID-19 pandemic has given me a new perspective to the values of being one with the Universe and working the soil and seeing seedlings grow. (USA, 67yrs)

Retreating, sensing and caring in the garden were strongly associated with the chance to reconnect with nature, and through nature to self and spirit. Comments were made by a spectrum of respondents across age groups, and included observations such as: “I was out in nature more often and I feel more connected to it”; “I experience nature in the garden more intensively” and “With all the bad news it is good to spend time with nature and the goodness of creation”. These suggest connecting with nature, through the garden, was both a material and non-material consequence of COVID-19 gardens.

For some, an enhanced sense of nature connection was attributed to rest, relaxing and feeling calm in the garden. The weightings of work and relaxation in the garden were adjusted slantwise for some:

I am even more relaxed about gardening than before. Until now, the desire to create and maintain something balanced the need for contemplation. In the meantime, the latter predominates. (Germany, 72yrs)

With similar sentiment, respondents described how they gardened with “more awareness” than they had at other times. As the respondent who noted the increased (felt) volume of birds notes, gardening was occurring with much more “attentiveness”. In short, this research demonstrates that experiences of the garden during COVID-19 were associated with an increased attunement with nature. ‘Nature’ was accessed via gardens: people felt more attuned to nature in the sites where they or others created and cultivated gardens.

Attunement in this context refers to the intimate relationship, or flow of energy and communication, between humans and the non-human world (Beauvais, 2012). We know that attunement with nature is good for health (Richardson et al., 2016), and this was reiterated in our research as respondents associated it with positive and therapeutic benefits. In “Wildness and Wellbeing”, Myers (Myers, 2020) explains the specific neurological responses to an immersion in nature, and the relationship between these and mental health. This (reciprocal) relationship recognises that “humans are wrapped up in a wider ecology of things” (Boyd, 2017) (p29) and interconnected with the natural (more-than-human) world.

A consequence of attunement with nature in our research was a sense of stewardship. People felt more responsible to look after non-human nature, for example:

It encourages me to live even more in harmony with nature and to protect it even more. (Germany, 53yrs)

The association between contact and a sense of connection with nature and a desire to protect it is well documented (Guerlain and Campbell, 2016; Mumaw, 2017; Soga and Gaston, 2016). The COVID-19 pandemic occurred during a time when the non-human environment was under great strain of climate changes, reduced biodiversity, and general ecological ill health. A response to these global challenges is a plea for a larger ecosystems view “which includes the role of posthuman meaning, agency and political relations” (Lewis, 2020) as a way of ensuring both planetary and human health and wellbeing. That is, a future in which our health and wellbeing strategies are underpinned by, and inextricably connected to, the restoration, preservation and

cultivation of healthy ecosystems.

Residential gardens are often overlooked in research concerned with nature-health benefits (de Bell et al., 2020). There has long existed a conceptual division between nature as wild human-less ecology, and the cultivated version of nature that are the gardens humans tend. The argument is that gardens are the poorer version of wild nature (Cooper, 2006) and cannot deliver the same effects for humans. The counter-argument is that the boundary between nature, or ‘the natural’, and the garden is unquestionably permeable (Kirkpatrick, 2006) and that gardens are merely expressions of our co-dependency with nature (Cooper, 2006) (p142). This is the argument we see supported by the results of this study. One implication of this is that benefits are not the privilege of either wildness or gardening. Cooper (Cooper, 2006) extends this idea further by suggesting that a garden is effective *because* of the combination of cultivation, the mystical (non-material) and attunement to nature (p143) (my emphasis). Echoing Cooper, this study found that the garden delivered a beneficial combination of mixed elements. What we also found was that the garden could be therapeutic not only during times of relative normality, but as people were experiencing physical, emotional and mental challenges previously unknown.

6. Conclusions

This work illustrates the profile of the contemporary garden as therapeutic landscape during COVID-19. A place simultaneously material and sensory, combining plants, people, emotions, and feelings. People found respite and other positive benefits for the physical, mental and emotional challenges of COVID-19, they experienced a heightened awareness of beauty, felt joy and freedom, and found grief support and reassurance. Birds felt louder, and this greater attunement with nature in turn created enthusiasm for caring for oneself and the planet. This occurred without intentional therapeutic interventions other than being present in and attending the garden space. The garden provided the means for an embodied, relational, therapeutic combination: cultivation plus emotions and sensations. The resultant therapeutic landscape had potential for multifarious positive impacts on health and wellbeing. Not only does this research improve our understandings of the role and potential of gardens as therapeutic landscapes, it also heightens our awareness of the benefits stemming from the non-material components of gardens and nature connection under extreme conditions generated by the COVID-19 pandemic.

While this study provides important insights, it also raises numerous

questions for future research in this area. Firstly, gardens were romanticised, even eulogised, by many respondents, to the extent that gardening can appear to be, misleadingly, almost the panacea to COVID-19 or indeed to other major health crises. What risk is to be had in (over) romanticising the benefits of gardens in this way, of engaging with the “questionable romanticism of an aesthetic of the sublime”? (Paterson, 2009) (p783). All gardeners know that any sublime pleasures are only part of the full story of gardening: it is frequently a chore, burden, or an imposition (Kirkpatrick, 2006) (p68). Yet, the garden as health-enabling refuge is an enduring notion. Perhaps the risk is outweighed by the possibility that the refuge translates into tangible positive outcomes that are much needed in current times, such as global environmental biodiversity and improved health equities – facilitating access for those who have the most to gain from the benefits of experiencing freedom and joy. Gardens are dynamic – enduring yet evolving. Currently, a highly contagious virus and the social and cultural shifts that mark our public health strategies are creating new demands on gardens, and the results of this research suggest that, even still, they can provide the therapeutic landscapes that people need.

Finally, this research demonstrates that an awareness of and appreciation for the non-material elements of gardens is associated with a relational immersion in the tangible attributes of garden spaces. However, we know also that therapeutic landscapes constitute physical, political, social, and ecological factors, and – to come full circle to the concept’s origins – symbolic and spiritual factors also. The non-materiality of gardens therefore, we suggest, plays a genuine part in the vast assemblage of elements that constitute contemporary life and are currently under-recognised for their contribution to wellbeing and human and planetary health. This research demonstrates the value of creating structural and sustainable opportunities for health-enabling experiences and amplified connections with nature, through gardens, in a post-COVID-19 reality.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Acknowledgements

Thank you to everyone who assisted in the distribution of this survey.

Appendix A. Relevant findings from survey open-ended questions, thematic/sub-thematic categories and associated therapeutic landscape element/s

Theme	Sub-theme	Additional Survey Responses	Non-material elements of the COVID garden
The garden as refuge	A place to feel safe	Living in your own large garden is almost "paradisical", everyday worries can stay outside. (Germany, 72yrs) It has been a welcome relief to cultivate my personal Eden. (UK, 55yrs)	Respite Relief Sense of safety Gratitude Edenic
	Therapeutic benefits from refuge	If not for my gardens, I would be depressed. Nature is my muse and my support during this time. (USA, 73yrs) The garden work helped me. Fresh air, nature, switching off and the television set with the always new, bad messages to COVID 19 switched off. (Germany, 62yrs) At least the recognition of the garden as a meditative relief has increased. (D, 41yrs) It soothes me. (Germany, 59 yrs)	Mental health support Respite Relief Soothing
	A retreat to community	During my time with Corona and home office I appreciated my balcony, my home, my green oasis like never before, enjoyed working at home as a vacation. In the weeks after moving into the new building, we laid out a complete garden for friends and with them it was clearly noticeable how the importance of the lockdown increased from day to day, the joy of being outside, of self-efficacy, suddenly thoughts of beehives, vegetable gardening, a huge herb spiral made of natural stone and - they were great weeks that we would not have had without the lockdown. (Germany, 37yrs)	Joy Relaxation Physical safety Optimism

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Theme	Sub-theme	Additional Survey Responses	Non-material elements of the COVID garden
Gardens and greater affect	Beauty	It has given me a much greater appreciation for the earth under my feet. The amazing things that the soil and sun and rain can produce. It is magnificent. (USA, 48yrs) I paid more attention to making my retreats in the garden attractive and with flowers to plants that are good for you but also useful for animals. (Germany, 28yrs)	Beauty Sense of purpose Sense of greater impact Optimism Mental health support Attunement
	Peace	I didn't fully realise how peaceful I found gardening. (USA, 29yrs) I have appreciated the peace and watching nature during this troubling time, it has given me peace (USA, 70yrs) Gardening brings stability and peace. (USA, 65yrs) Gardening gives strength in isolation from usual pursuits and family members and friends. Being over 70 years-of-age we were to stay home except for essentials. Peace and contentment from the gardening helped quell anxieties about COVID-19. (Australia, 78yrs)	Peace and quiet Calmness Tranquillity Sense of stability Sense of contentment Creativity Social connections
	Happiness	Isolation can have a very negative effect on the psyche. Working on the balcony has been a welcome distraction and has clearly lifted the spirits. (Germany, 19yrs) No change, only a much greater feeling of happiness within me. (Germany, 72yrs)	Mental health support Rest Distraction Lifting of spirits Happiness
	Freedom	Through the garden we have not felt trapped, as we have heard from other people living in apartments. We were outside even more than usual and enjoyed the peace and quiet due to the lack of air and car traffic. Nature like 100 years ago! (Germany, 57yrs) I didn't feel as trapped as some because I knew I could rely on our garden for food if things got worse. (Australia, 58yrs)	Sense of freedom Tranquillity Sense of safety
	Memory and continuing bonds	[I gardened] as a tribute to my grandmother who passed away in June 2020, because she loved gardening. (Canada, 29) The combination of COVID (don't want to go out too frequently), convenient, cut down food waste and mother passed away whom always had encouraged me to plant my own fruits and vegetables. (USA, 47yrs) My grandmother died. I had previously helped her with her garden, but never had one of my own. I was working from home and gardening was a way to grieve. (USA, 31 yrs) COVID-19 has reinforced my beliefs on the value of a community garden: we need these spaces to pause and connect with nature. (Germany, 63yrs) It's made me value the green space I have and the time I get to spend in the garden brings me peace and joy and also a sense of connection with nature. (Australia, 42yrs)	Greif support Continuing bonds
Attunement with Nature	Valuing the connection with nature	COVID-19 has reinforced my beliefs on the value of a community garden: we need these spaces to pause and connect with nature. (Germany, 63yrs) It's made me value the green space I have and the time I get to spend in the garden brings me peace and joy and also a sense of connection with nature. (Australia, 42yrs)	Attunement with nature Peace Joy Spiritual activity Optimism Fulfillment
	Reconnecting in physical and non-material ways	Gardening has allowed me to weather the social isolation of COVID. I am retired, so the peace of mind and connections to living systems is really valuable to me at this time. (USA, 67yrs) The gardens are areas for garbage cans and parking spaces, but can become personally important in times of crises and climate change ... because gardens could become also important for me personally as an oasis, place of refuge, for food. (Germany, 47yrs)	Peace of mind Nature connection Refuge Sense of safety Retreat
	Rest and relaxation enabled connection	I practice even more attention and calmness in gardening and appreciate the community garden in the city even more as an outdoor lounge in the community with others. (Germany, 64yrs) Watching the seedlings emerge during the first frightening weeks of lockdown was enormously calming. (Canada, 54yrs)	Relaxation Contemplation Mindfulness Calmness
	Gardening with awareness	Gardening is one thing, but the contemplation of doing is another. (Germany, 63yrs) I garden more consciously, take more time for it. (Germany, 36yrs)	Attentiveness Sensory intensity mindfulness
	Co-existence with nature and Increased stewardship	Enjoy nature even more consciously, enjoy the garden - which of course also means care. (Germany, 53yrs) I see all the plants and animals in [my garden] as roommates and I communicate with them. (Germany, 54yrs)	Harmony with nature Caring Connection with nature
	Meaning of life evocation	Yes, if all else fails, the garden is still there! A place of encounter and peace at the same time (Germany, 39yrs)	Optimism Reassurance Fulfillment

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