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FLORIDA HORTICULTURE FOR HEALTH NETWORK

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The Florida Horticulture for Health Network's vision: To promote activities and connect organizations to each other and to resources that use horticulture to improve health including therapeutic horticulture and horticultural therapy, landscapes for health, nature, emerging professional support, allied horticulture and health services, community and school gardens, and food action initiatives.

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Special Issue

Plants and Sense of Place: Applications for Therapeutic Horticulture

Text by Lesley Fleming, HTR, Bree Stark & Joanna Brown
Photos by Freepik, L. Fleming & Jung Seeds

Plants can contribute to a sense of place. Though they may not be the only factor creating a sense of place, they can play an important role in personal attachment to geographical areas, identity and sense of belonging. These are considered to be significant for personal wellness, social connections and emotional stability. Applications of the sense of place concept to horticultural therapy (HT) and therapeutic horticulture (TH), and alignment with therapeutic goals is possible and is occurring in practice now.

Exploring sense of place as it relates to HT and TH, and the contexts in which it can be used to achieve health outcomes broadens the discipline. Investigating sense of place theory from the perspective of multiple disciplines, examining the role plants play in this concept, and exploring applications of sense of place to HT/TH practice using examples from the Therapeutic

Horticulture Activities Database (THAD) will demonstrate the breadth of applications including therapeutic goals and use by specific populations based on actual delivery of TH activities.

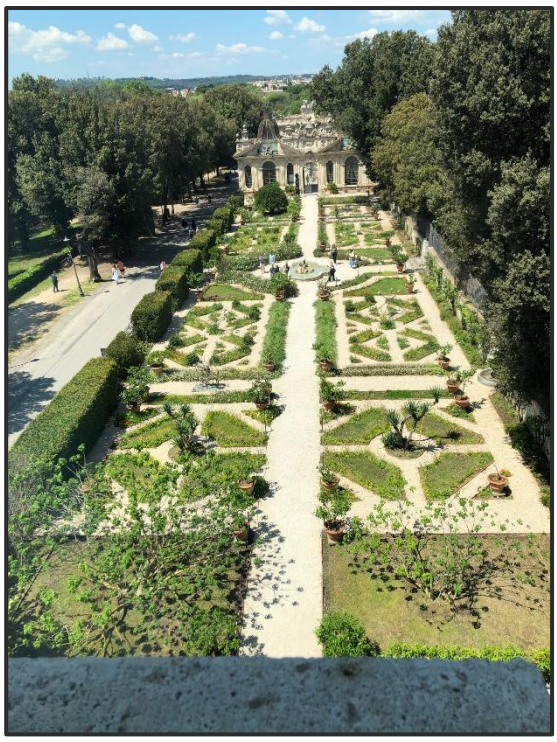
The importance of sense of place to health and wellbeing is now considered widely accepted. Research and literature reviews have confirmed wide ranging health benefits including sense of identity, positive attachment to places and communities, improved mental health and self-esteem, strengthened affective bonds, continuity, and basic need satisfaction (Albers et al. 2021; Scannell et al., 2017; Di Masso et al., 2019).

Albers, T., Riccio, S., Weiss, L.A. et al. (2021). The role of place attachment in promoting refugees' well-being and resettlement: A literature review. *International Journal of Environmental Research and Public Health, 18*(21).

Di Masso, A., Williams, D.R., Raymond, C.M. et al. (2019). Between fixities and flows: Navigating place attachments in an increasingly mobile world. *Journal of Environmental Psychology, 61.*

Scannell, L., & Gifford, R. (2017). Place attachment enhances psychological need satisfaction. *Environmental. Behavior, 49.*

Lesley Fleming, HTR, Bree Stark and Joanna Brown researched and wrote this article on sense of place as they were delivering and writing THADS with the same theme. They developed and delivered a webinar presentation for the American Horticultural Therapy Association's 2025 conference titled Sense of Place? Applications for Horticultural Therapy, available as a recording from Florida Horticulture for Health Network.



Defining Sense of Place

Text by Lesley Fleming, HTR, Bree Stark, & Joanna Brown
Photos by The New Yorker, Homes and Gardens & Nashville Tree Conservation

Sense of place has been interpreted and defined by several disciplines within the context of their own fields of expertise. No consensus has emerged other than perhaps that sense of place is more of an identifying basis or attitude by which individuals experience and relate to different places and spaces. Humanist geographers in the early 70's were among the first to recognize and name the experience of people bonding with spatial settings (Buttimer, 1980; Stokols & Shumaker, 1981). From the landscape design perspective, sensory connections with a place inform design, provide meaning, and reference phenomenology (Hunziker et al., 2007). The field of environmental psychology views sense of place from an emotional perspective – describing it as attachments people develop in specific locations or places that sometimes, though not always, have distinctive elements (Foote & Azaryahu, 2009). From an anthropology-heritage perspective, a sense of place allows people to integrate past and present, integrating physical features of cultural historical landscapes, buildings, plants, and topographical elements, occasionally contributing to a regional identity (Davis, 2011; Dameria et al., 2020; Mosler, 2019). Derr, Chawla and Mintzer's 2018 book on placemaking with children and youth is a more recent work in this paradigm, with a specific focus on nature environments.

The literature on sense of place identifies concepts that are related to sense of place. *Place attachment* refers to an emotional experience, most often positive, that results from human experiences in physical spaces (Brown et al., 2003; Stokols & Shumaker, 1981; Diamont & Waterhouse, 2010). *Place identity* suggests that individuals apply self-meaning to places. They interpret experiences in the place as similar or reflective of themselves, whether it be related to their pasts, childhoods or family histories (Okoli, 2013; Buttimer, 1980; Shamai, 1991; Cuba & Hummon, 1993; Jorgensen & Stedman, 2001). Sense of place contributes to a *sense of community* and *sense of belonging*, sometimes referred to as *rootedness*, terms that invoke emotional connections (Dameria et al., 2020). The *spirit of place* suggests emotional, cultural and social bonds people make with a given environment (Stedman, 2003).

Jorgensen and Stedman's 2001 work describes sense of place as involving "three dimensions…place identity (cognitive component), place attachment (affective component), and place dependence (conative component)", the latter defined as relating to a wish, intention, or natural tendency that leads people to action or particular behaviors. Theorists mention tangible and intangible qualities that form connections and give meaning to sense of place; "place-people bonding is not intrinsic to physical settings but is the human interpretation of the setting constructed from experiences with it" (Stedman, 2003; Bore, 2025; Dameria et al, 2020; Domingues et al., 2021).



These various definitions and terms related to sense of place provide foundational knowledge for proposing applications within horticultural therapy and therapeutic horticulture where plants may be important elements that invoke a sense of place. Using a sense of place theme for HT/TH activities can provide creative pathways for addressing participant needs, offering an organizational element within practice. It is important to acknowledge that plants are not the only element that create a sense of place, and that an individual's experiences determine their personal sense of place. Plants may provide an opportunity to address health challenges and goals using a sense of place. Referencing sense of place interventions that have been delivered as part of HT/TH practice, and which have been peer-reviewed and published in the University of Florida's Therapeutic Horticulture Activities Database (THAD) demonstrates specific and recent applications for HT/TH.

Two Aspects of Sense of Place: Plants as Part of Physical Settings and Conative Imaginative Sense of Place with Plants

Sense of place generally refers to geographic spaces where experiences people have can elicit feelings. Plants play a role in this as do other elements like topography, smells, visual cues, cultural buildings, and other designed landscape elements. Exploring the concept "place-people bonding is not intrinsic to physical settings but is the human interpretation of the setting constructed from experiences with it" (Stedman, 2003) suggests two distinct contexts where plant activities can provide a sense of place HT/TH applications. The first one uses plants as components of physical settings, where clients recall their experiences in specific settings and plants that were part of this setting. The second HT/TH application uses plants alone, where experiences in physical settings may never have occurred. This application can provide conative imaginative use of plants to create or explore a sense of place like imagining going to a wildflower field in Texas or being immersed in a rose garden. This latter application references Attention Restoration Theory (ART), its fascination and being away elements, as well as the concept of soft fascination (Kaplan & Kaplan, 1989). In both contexts, HT/TH applications with therapeutic processes including health assessment and goal-setting, hands-on plant and gardening activities aligned with goals, and measurable health outcomes is possible.

At the very foundation of people-plant connections, biophilia theory identifies the human need to connect with nature and this can include, but is not limited to, plants as living organisms (Wilson, 1986). Plants can contribute to a sense of place, providing emotional connections. Previously cited work by Jorgensen and Stedman (2001) identified three dimensions: "place identity (cognitive component),

place attachment (affective component), and place dependence (conative component)" helps to understand component parts of sense of place, where different facets of these can be applied to HT/TH interventions. For example, people can cognitively know or learn about a plant, feel emotional connections and bonds to it, and have conative wishful ideas or innate behavior expressions related to a plant. The latter element provides the basis for HT/TH applications where plants alone, without clients having actually been to a physical place, can use a sense of place theme for health interventions. This provides for connections to plants creating a sense of place in a variety of settings including HT/TH session rooms or therapeutic gardens, and is not limited to an actual visit to the Sonoran Desert with its saguaro cacti or sequoia trees in California. Emerging evidence within HT/TH practice where sense of place activities are being used in this context suggests the efficacy of such interventions and activities (Brown, 2025; Fleming, 2025).

Referencing the Kaplans' Attention Restoration Theory (ART) (1989), their concepts inform HT/TH applications using sense of place themes. These include nature contributing to *being away,* not necessarily physically away but transported in mind and spirit; *fascination,* where thoughts and attention are stimulated, absorbing, reflective and sense-making; *extent* where the environment engages the person comfortably and immersively; and *compatibility* - feeling enjoyment, familiarity suggesting ways that nature, and plants as part of nature, can support human wellbeing. ART theory proposes therapeutic benefits including improving concentration and reducing mental fatigue for example, these relatable to HT/TH practice. HT/TH practice is now exploring ways in which plants can be used in the capacities ART suggests including soft fascination, extent and compatibility (Fleming et al., 2024).

Extrapolating ART to themes of sense of place used in HT/TH suggests relevant applications for diverse populations. Memory and recall of places and experiences where plants trigger cognitive functions is possible. Plants can support and create imaginative wishful thoughts of being somewhere spiritually or emotionally without physically being there; these are related to psychological domain goals. Touching, smelling and even simple viewing of plants, without actually being in the physical settings of the Sonoran Desert can support ART elements of familiarity, fascination and being away using sensory domain inputs and goals. The connection between smell and memory, neurological/brain connections, and emotional connections to memories lasting a long time (Kontaris et al., 2020) can be used for sense of place interventions. Plants can play a significant role in creating or recalling sense of place; for example - the smell of lilacs associated with childhood and recalled later in adulthood, or the creation of new memories that may be associated with the experience/setting where this first occurs.

Current practice is expanding, where individuals make emotional connections to plants using a sense of place theme. These have been described and published in the therapeutic horticulture activities database (THAD) based on actual HT/TH interventions that have been implemented and vetted prior to publication. Sense of place has been used as therapeutic goals within HT/TH practice prior to this; however, practitioners are using sense of place for both a theme within practice, and more detailed, unique applications not previously published in HT literature. The more recent applications cited in this article explore various facets of human functioning and therapeutic goals where improving concentration, psychologically shifting negative thoughts to positive ones, processing experiences to gain better personal awareness, understanding functioning, strengthening sense of belonging, exploring self and identity for example, are delivered as TH interventions using a sense of place theme

(Fleming et al., 2024). This suggests that more practitioners are using sense of place activities. Subsequent research will be needed to validate health outcomes from these interventions.

Bore, J. (2025). Sensory design: How contemporary projects enhance our understanding of the landscape. *Smart Cities Dive.*

Brown, J. (2025). TH activity plan – Adopting a room plant: Growing a sense of place in residential treatment. *University of Florida Therapeutic Horticulture Activities Database.*

Brown, B., Perkins, DD., & Brown, G. (2003). Place attachment in a revitalizing neighborhood: Individual and block levels of analysis. *Journal of Environmental Psychology, 23*(3).

Buttimer, A. (1980). Home, reach, and the sense of place. In D. Buttimer, & A. Seamon (Eds.), *The human experience of place and space* (pp. 166–187). Croom Helm Publishers.

Cuba, L., & Hummon, DM. (1993). A place to call home: Identification with dwelling, community, and region. *Sociological Quarterly, 34*(1).

Dameria, C., Akbar, R., Indradjati, P.N., & Tjokropandojo, D.S. (2020). A conceptual framework for understanding sense of place dimensions in the heritage context. *Journal of Regional and City Planning, 31*(2).

Davis, P. (2011). *Ecomuseums a sense of place* (2nd ed.). Continuum.

Derr, V., Chawla, L., & Mintzer, M. (2018). *Placemaking with children and youth: Participatory practices to plan sustainable communities.* New Village Press.

Diamont, E., & Waterhouse, A. (2010). Gardening and belonging: Reflections on how social and therapeutic horticulture may facilitate health, wellbeing, and inclusion. *British Journal of Occupational Therapy, 73*(20).

Domingues, RB., Goncalves, G., & De Jesus, SN. (2021). Measuring sense of place: A new place-people-time-self model. *Journal of Spatial and Organizational Dynamics, 9*(3).

Fleming, L. (2025). TH activity plan - Multiple relocations' sense of place - Military. *University of Florida Therapeutic Horticulture Activities Database.*

Fleming, L. (2025b). Practitioner tool: Therapeutic horticulture goals with THAD activity examples: Physical domain. *Cultivate, 5*(2).

Fleming, L., Diehl, E., & Grimes, K. (2024). Therapeutic horticulture and therapeutic goals: Expanding the scope and practice through the therapeutic horticulture activities database and its use of health domain-specific goals. *Journal of Therapeutic Horticulture, 34*(1).

Foote, KE., & Azaryahu, M. (2009). *Sense of place. International Encyclopedia of Human Geography* (pp. 96-100). Elsevier.

Hunziker, M., Buchecker, M., & Hartig, T. (2007). Space and place – Two aspects of human-landscape relationship. In F. Kienast & O. Wildi (Eds.), *A changing world: Challenges for landscape research.*

Jorgensen, B.S., & Stedman, RC. (2001). Sense of place as an attitude: Lakeshore owners attitudes toward their properties. *Journal of Environmental Psychology, 21*(3).

Kaplan, S., & Kaplan, R. (1989). *The experience of nature: A psychological perspective.* Cambridge University Press.

Kontaris, I., East, BS., & Wilson, DA. (2020). Behavioral and neurobiological convergence of odor, mood and emotion: A review. *Frontiers Behavioral Neuroscience, 14.*

Mosler, S. (2019). Everyday heritage concept as an approach to place-making process in the urban landscape. *Journal of Urban Design, 24*(5).

Okoli, D.T. (2013). Sense of place and student engagement among undergraduate students at major public research university. *Colorado State University.*

Shamai, S. (1991) Sense of place: An empirical measurement. *Geoforum, 22*(3).

Stedman, R.C. (2003) Is it really just a social construction? The contribution of the physical environment to sense of place. *Society & Natural Resources: An International Journal, 18*(8).

Stokols, N., & Shumaker, SA. (1981). People in places: A transactional view of settings. In J.H. Harvey (Ed.), *Cognition social behaviour and the environment* (pp. 441–488). Lawrence Erlbaum Associates.

Wilson, EO. (1986). *Biophilia.* Harvard University Press.

Applications of Sense of Place for Therapeutic Horticulture Populations

Text by Lesley Fleming, HTR, Bree Stark, & Joanna Brown
Photos by J. Fleming & Lancs Live

Multiple applications of sense of place have been identified and described in the therapeutic horticulture activities database (THAD) including 13 examples. A listing of these THADS is available on page 14. Using sense of place as a theme or focus for HT/TH provides an opportunity to broaden the practice. While sense of place has been prevalent as a concept in other disciplines including the landscape design profession, it has had limited exposure and interpretation in HT/TH.

Like other HT/TH activities, the versatility of using sense of place in practice allows for multiple delivery mechanisms including workshops, clinical horticultural therapy, therapeutic horticulture, one-on-one sessions, recreational gardening, and designing gardens. Interventions for individuals at various life stages and experiences, with all types of health issues, can provide for their personal interpretation and use of plants and sense of place. This can be empowering and creative, with the capacity to expand personal awareness, process familial relationships, or cope with situations. The versatility of sense of place used in HT/TH practice is a strength. It can be conative (wishful), a reflection of self, tied to historical locations, or used to overcome negative emotions, thoughts or behaviors. As such its broader use in HT/TH practice is recommended. THAD examples for wellness, mental health, incarcerated, refugee and child populations provide insight into applications for practitioners. Further work in the field will expand applications beyond these populations, where therapeutic goals related to therapeutic use of plant activities in sense of place contexts will be used with all populations.

It should be noted that not all sense of place experiences with plants are positive. In the context of using sense of place as an HT/TH intervention, they would most likely be positive. The exception would be where participant(s)' health challenges involved traumatic experiences where their emotional memories were tied to plants in the traumatic situation, for example an environment with plants where the crime occurred (park, forest). Plants can be mechanisms for understanding sense of place, with interventions striving to change individual's perspectives, or where plants can take on new meaning. Interventions can work towards seeing some elements of the sense of place, say one plant, or plant fragrance, as a positive attribute, not assigning negativity to all aspects of sense of place. This may allow the person to move forward in the therapeutic process per trauma-informed therapy theory (Marks et al., 2022).

Marks, C., Pearson, J-L., Martin, N. et al. (2022). Articulating the trauma-informed theory of individual health behavior. *Stress and Health, 38*(1).

Sense of Place Applications – Wellness Populations

Text by Lesley Fleming, HTR
Photo & graphic by L. Fleming

HT/TH practice provides services for wellness populations, described as people without diagnosed health challenges necessarily, but who are interested in maintaining positive mental health and wellbeing, particularly given COVID and other societal stressors. There appears to be an increasing demand for services that can provide strategies for maintaining good mental health, coping with anxiety and adversity, and strengthening healthy social interactions.

A sense of place theme can allow for workshops, botanical garden tours or other plant-based activities for individuals to explore self, self-identity and expand self-awareness, these contributing to good mental health. This facet of sense of place references place identity theory (Okoli, 2013). THAD example Texas Old Garden Roses: A Sense of Place (Fleming et al., 2025a), with a TH activity propagating old garden roses, incorporates goals of expanding plant knowledge, (cognitive domain), deepening personal understanding of self, and historical plant references to stimulate and guide participants (psychological domain). Using plant characteristics of Texas antique roses, and asking questions about their personal characteristics (Can you adapt to situations? Are you prickly like a rose?) can be a positive experience with plants, used to foster intellectual/cognitive activity and bolster mental health. The sense of place theme provides a non-threatening platform to explore personal, individualized journeys. These types of interventions, where a sense of place theme is utilized, can be regionally or locally specific, using plants that are known and thrive in the specific areas.

Can You Relate to Texas Old Garden Roses?	
Old Garden Rose Characteristics	Your Characteristics
Do you currently live or have ever lived in Texas?	
Are you old (introduced prior to 1867) or feel old?	
Are you a survivor?	
Can you adapt to situations like old garden roses did?	
Are you prickly?	
Are you a cultural artifact or have links to historical figures?	
Do you have a great name?	
Have you ever rustled roses or something else?	
Do old garden roses provide a sense of place?	

Sense of Place Applications for Mental Health - Experiencing Substance Use and/or Co-occurring Disorders

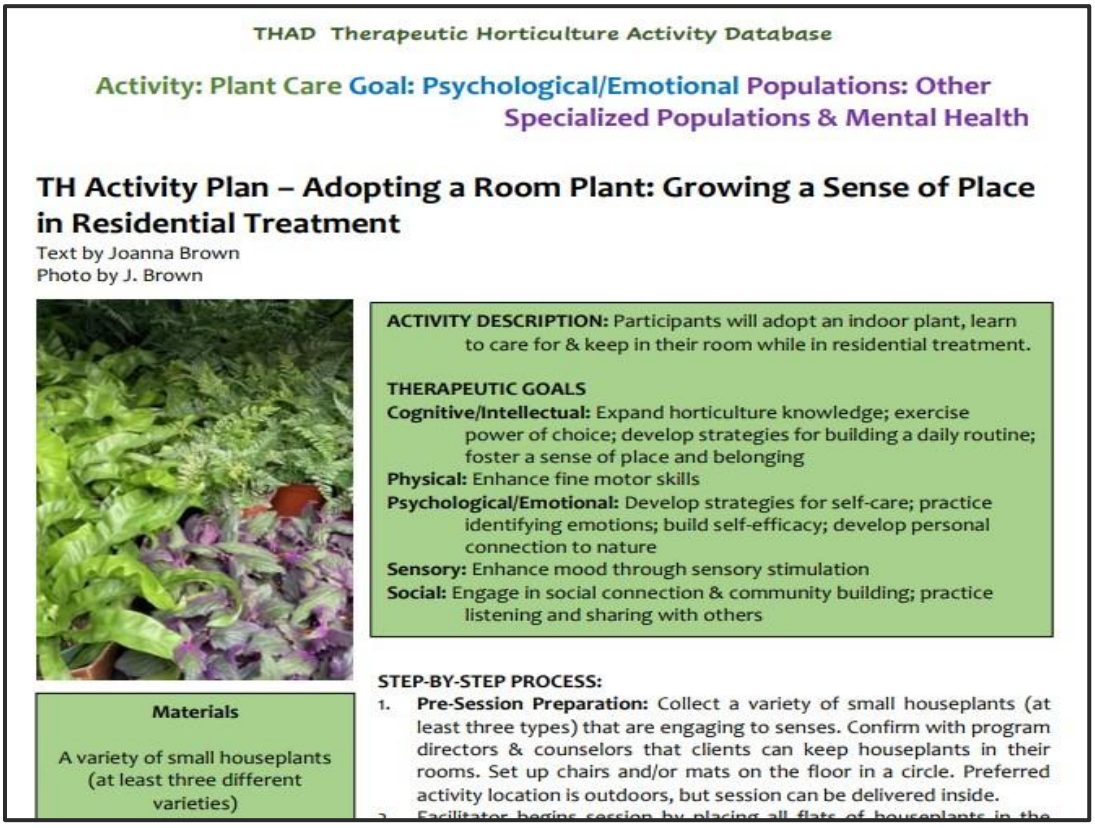
Text by Joanna Brown
Photo by Psychology Today, Seasol & THAD

The population of substance use and/or co-occurring disorders is one subset within mental health and refers to the combination of substance use disorders (such as alcohol or drug dependence) with mental health conditions like depression, anxiety, or PTSD (SAMHSA, 2024). Some individuals within this population have limited access to shelter and oftentimes receive treatment in community long-term residential facilities after being incarcerated within the criminal justice system or having experienced homelessness (SAMHSA, 2020). These disorders can oftentimes impact an individual's ability to connect with their environment and establish stability (Prescott, 2025).

Sense of belonging, often a factor in sense of place, can be fostered in residential treatment settings for this specific population using HT and TH. Multiple therapeutic goals can be incorporated including nurturing the plant and self, establishing daily routines, fostering a sense of community and belonging - all of which support recovery, personal healing and growth. In the THAD activity Adopting a Room Plant: Growing a Sense of Place in Residential Treatment, participants adopt one plant from a variety of visually stimulating houseplants to symbolize a reflection of themselves, a loved one or a significant personal event, this concept foundational to sense of place theory (Brown, 2025; Okoli, 2013). The act of adopting and caring for their personal 'room plant' while in a new, unfamiliar and often challenging environment introduces participants to the idea of creating a safe space, a version of a sense of place appropriate for this type of treatment environment.

This HT/TH application of sense of place provides an emotional connection to plants, and to a lesser extent, the natural world, where a personal plant can be a meaningful consistent presence and part of the creation of a safe space. Establishing a safe space, which can be both a therapeutic activity and

therapeutic technique, supports participants in creating a sense of community, belonging, support system, and rootedness while caring for their plants. This facet of sense of place references sense of community theory (Dameria et al., 2020). The therapeutic technique of participants being heard and validated, proven effective within mental health/addiction field, can also be integrated into sense of place TH activities and important for navigating the challenges of recovery (Stevens et al., 2012).



THAD Therapeutic Horticulture Activity Database

Activity: Plant Care Goal: Psychological/Emotional Populations: Other Specialized Populations & Mental Health

TH Activity Plan – Adopting a Room Plant: Growing a Sense of Place in Residential Treatment

Text by Joanna Brown
Photo by J. Brown

ACTIVITY DESCRIPTION: Participants will adopt an indoor plant, learn to care for & keep in their room while in residential treatment.

THERAPEUTIC GOALS
Cognitive/Intellectual: Expand horticulture knowledge; exercise power of choice; develop strategies for building a daily routine; foster a sense of place and belonging
Physical: Enhance fine motor skills
Psychological/Emotional: Develop strategies for self-care; practice identifying emotions; build self-efficacy; develop personal connection to nature
Sensory: Enhance mood through sensory stimulation
Social: Engage in social connection & community building; practice listening and sharing with others

Materials

A variety of small houseplants (at least three different varieties)

STEP-BY-STEP PROCESS:
1. **Pre-Session Preparation:** Collect a variety of small houseplants (at least three types) that are engaging to senses. Confirm with program directors & counselors that clients can keep houseplants in their rooms. Set up chairs and/or mats on the floor in a circle. Preferred activity location is outdoors, but session can be delivered inside.
2. Facilitator begins session by placing all flats of houseplants in the

Brown, J. (2025). TH activity plan - Adopting a room plant: Growing a sense of place in residential treatment. *University of Florida Therapeutic Horticulture Activities Database.*

Dameria, C., Akbar, R., Indradjati, P.N., & Tjokropandojo, D.S. (2020). A conceptual framework for understanding sense of place dimensions in the heritage context. *Journal of Regional and City Planning, 31*(2).

Okoli, D.T. (2013). Sense of place and student engagement among undergraduate students at major public research university. *Colorado State University.*

Prescott, S. (2025). How stable housing supports recovery from substance use disorders. *John Hopkins Bloomberg School of Public Health.*

Stevens, EB., Jason, LA., Ferrari, JR. et al. (2012). Sense of community among individuals in substance abuse recovery. *Journal of Groups Addiction Recovery, 7*(1).

Substance Abuse and Mental Health Services Administration (SAMHSA). (2024). Co-occurring disorders and other health conditions.

Substance Abuse and Mental Health Services Administration (SAMHSA). (2020). Substance use disorder treatment for people with co-occurring disorders., 1-12.

Joanna Brown is familiar with mental health populations and treatment facilities. She holds a Certificate in Horticultural Therapy and is currently a Masters of Social Work student.

Sense of Place Applications – Incarcerated Populations

Text by Lesley Fleming, HTR
Photos by The Guardian, Living Color Garden Center & HGIC@Clemson.edu

People who are incarcerated have limited access to nature and plants, live in isolated settings and typically have complex and multi-dimensional health issues including mental health diagnoses and behavioral misconduct (Fleming et al., 2023; Liu et al., 2021). HT/TH interventions addressing self-regulation dysfunction, weak social skills, trauma, stress and substance misuse are being seen in practice (Fleming, 2025b). Using sense of place, HT/TH can provide opportunities to mentally transport people to less stressful plant-rich nature settings that are restorative, and which can provide conative wishful thoughts (Jorgensen & Stedman, 2001).

Practicing methods that can shift negative mood and attitudes to more positive ones can be impactful for people in challenging situations like incarceration. THAD First Encounters with Florida Plants (Fleming et al., 2025) uses plants specific to this state to reduce negative thoughts, immersing participants in visually appealing, fragrant and intriguing tropical plant life. HT/TH techniques can be adapted for populations not able to do an outdoor walk or visit Florida for such a session. Practice is now using photos and live plant specimens to create a sense of place like Florida, where plants like Bird of Paradise, sensory stimulation, and cognitive/psychological functions can expand positive moods and attitudes without actually being in the physical Florida location. Research suggests viewing nature and plants can have beneficial health outcomes.

Fleming, L. (2025). Practitioner tool: Therapeutic horticulture goals with THAD activity examples: Physical domain. *Cultivate, 5*(2).
Fleming, L., Bethel, M., & Roberts, T. (2023). Self-Regulation, its neuroscience foundations and horticultural therapy: Growing the connections. *Journal of Therapeutic Horticulture, 33*(1).
Liu, H., Li, T.W., Liang, L. & Hou, W.K. (2021). Trauma exposure and mental health of prisoners and ex-prisoners: A systematic review and meta-analysis. *Clin Psychol Rev., 89.*

Lesley Fleming, HTR has worked with incarcerated populations in a county jail facility delivering therapeutic horticulture as part of a vocational horticulture program accredited by the local school district.



Sense of Place Applications – Active Military

Text by Lesley Fleming, HTR & Donna Hunt, HTR
Photos by Mighty Oaks Program, Discover.Hubpages.com, Reddit

Frequent relocations of active military personnel can create a sense of impermanency and instability. Health challenges related to the military lifestyle of constant moves, with limited power to determine relocations, can be addressed through HT/TH sense of place activities. Using plants as markers for station location postings can provide participants with the tools to interpret, process and remember relocations in a positive manner. Plant metaphors, actual plants, and plant activities like potting a plant from their present location for example, can create a sense of place and rootedness, even for a short period of time (Dameria et al., 2020).

Place attachment can provide positive affective connections (Brown et al., 2003). THAD Multiple Relocations Sense of Place – Military (Fleming, 2025) was written specifically for this population and situation, with goals identified across the five health domains. The TH focus of exploring their station locations and putting in place a strategy whereby plants can provide a positive connection for the present and future, allows perspectives to shift or expand to include environment as well as plant elements. Interpreting sense of place can be important for military families, where plant activities can be shared as family time including plant-focused activities like visiting local gardens, collecting plants from station locations, starting a garden, or attending a sense of place workshop.

Brown, B., Perkins, DD., & Brown, G. (2003). Place attachment in a revitalizing neighborhood: Individual and block levels of analysis. *Journal of Environmental Psychology, 23*(3).
Dameria, C., Akbar, R., Indradjati, P.N., & Tjokropandojo, D.S. (2020). A conceptual framework for understanding sense of place dimensions in the heritage context. *Journal of Regional and City Planning, 31*(2).
Fleming, L. (2025). TH activity plan - Multiple relocations' sense of place - Military. *University of Florida Therapeutic Horticulture Activities Database.*

Lesley Fleming, HTR collaborated with Donna Hunt, HTR who delivers therapeutic horticulture programming at Robins Air Force Base, GA.

Sense of Place Applications – Refugees, Climate Refugees, and Immigrant Populations

Text by Bree Stark
Photos by Vegetables West.com, Webstaurant Store, ANMS & Camel

The United Nations High Commissioner for Refugees defines a refugee as a person who has been forced to flee their place of origin to seek safety elsewhere due to persecution for who they are, what they believe or say, armed conflict or war, violence or serious public disorder. This is an expanding population with at least 43.7 million refugees worldwide as of June 2024 (UNHCR, 2024). Due to the traumatic nature of their displacement, including potential loss or separation from family, exposure to violence or death, and loss of culturally important foodways, refugee populations have high rates of emotional and mental health issues. In addition, they experience chronic stressors associated with resettlement such as financial insecurity, nutritional deficits, discrimination and language barriers to social integration (Bunn et al., 2023; Mesa-Vieira et al., 2022; Wood et al., 2021).

While not officially recognized as refugees under international definitions set by the 1951 Refugee Convention, climate refugees refer to people who have had to leave their homeland due to climate related disasters such as floods, hurricanes, windstorms, fire, and drought, a large number according to The Institute for Economics and Peace (2020). This population has typically experienced trauma that led to their need for relocation, with circumstances including no legal right to resettlement assistance in other countries, and experiences of ecologically focused grief and anxiety related to climate change and climate disasters (Apap & Harju, 2022).

Immigrants, like refugees, have been uprooted from their home countries and face a large number of challenges including factors noted above, as well as loss of culturally significant food and sense of place which impact health. Establishing a new sense of place and familiarity can be addressed with therapeutic horticulture interventions for each of these populations. Activities designed around culturally significant foods and plants of their country of origin can help re-establish a sense of place reminiscent of home, in addition to improving mental health, economic well-being and social relationships (Gangamma et al., 2023; Koncikowski & Capozziello, 2021). THAD example of Eating Plant Parts – Immigrant/Refugee (Fleming, 2023) explores ethnobotany and food traditions from homelands while focusing on nutrition.

Related, TH can be used to create a sense of place for their new locations and communities, using a food and nutrition focus, where activities designed around *locally* significant plants and foodways, including foraging for those who come from a culture where foraging is an important part of life. This can help create a sense of place within their new community and bioregion, and nutrition can be bolstered, the latter an issue that research has identified as a negative health impact on immigrants and displaced refugees (Dinh, 2024; Biglin, 2020; Gangamma et al., 2024; Wood et al., 2021). TH sessions can use plants (separate from their physical settings) to create a sense of place in this context. It should be noted that TH programs at community gardens are being used in this way (Gerber et al., 2017; Heilmayr et al., 2020; Strunk & Richardson, 2019).

Apap, J., & Harju, S. (2022). The concept of "climate refugee": Towards a possible definition. European Parliament. *European Parliamentary Research Service.*

Biglin, J. (2020). Embodied and sensory experiences of therapeutic space: Refugee place-making within an urban allotment. *Health & Place, 62.*

Bunn, M., Khanna, D., Farmer, E. et al. (2023). Rethinking mental healthcare for refugees. *SSM Mental Health, 3.*

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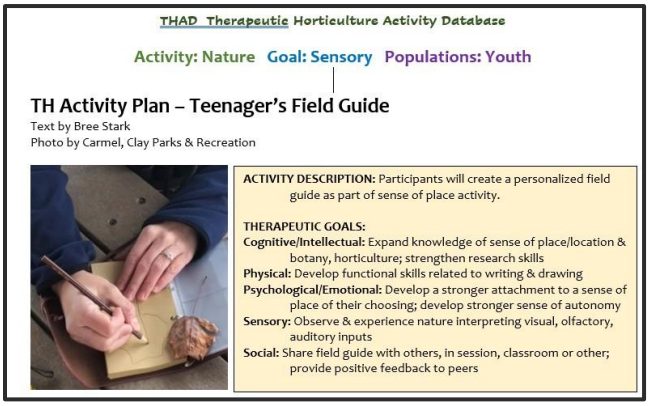
Bree Stark is committed to climate change activism and has delivered TH sessions to many populations with this focus.

Sense of Place Application – Children and Teen Populations

Text by Bree Stark
Photos & graphic by Carmel, Hood Mining & THAD

Human geographers refer to children forming their sense of place through sensory interactions with their immediate family and homes, their greater community and their natural as well as built environments (Brilliante & Mankiw, 2015). These areas of experience also enhance their physical, cognitive and emotional development (Summers et al., 2020; Pyle, 2011; White, 2006). A child's sense of place helps in understanding the world around them and developing self-identity and belonging, which in turn informs their sense of place into adulthood (Brilliante & Mankiw, 2015). These plant and place connections will be recalled throughout their life, forming important emotional and cognitive attachments, memories and foundations.

Using a sense of place theme for TH interventions can foster these important developmental skills and memories, particularly when sensory exploration is integrated into activities. For younger children (3-6), learning seasonal native flowers through sight, touch, and smell, or eating seasonal fruits, whether native or domesticated, can help form a connection with their local environment. THAD example of Sensory Bin can support this sense of place including using plants without a physical setting (Fleming & Bethel, 2024). Where a sense of place TH activities can involve both plants and a physical setting like a schoolyard or park, older children or teens can work towards developing independence and self-identity while expanding botany, horticulture knowledge and research skills by creating a personal "plant field guide" in a specific location. This is demonstrated in THAD Teenager's Field Guide (Stark, 2025). Georgia Red Clay Soil: A Sense of Place THAD (Fleming & Dorn, 2025) suggests a slightly different application of sense of place set in Georgia, where this TH intervention includes sensory experiences targeting self-regulation, sensory defensiveness, and sensory integration, all common health and socio-emotional areas for child development.



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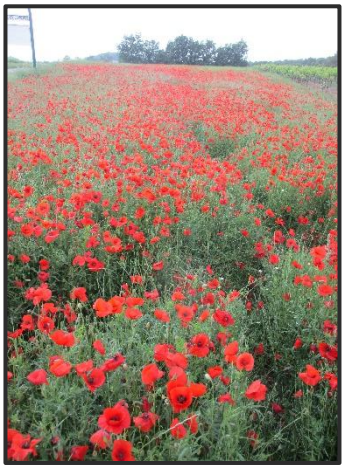
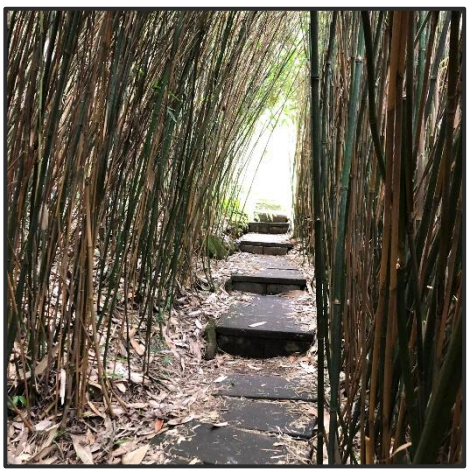
Bree Stark delivers therapeutic horticulture to children, teens and adults integrating her special passion for the environment.

List of THADS with Sense of Place Theme

The following examples of therapeutic horticulture activities with a sense of place theme have been published in the University of Florida Therapeutic Horticulture Activities Database (THAD). They are based on actual delivery of TH.

TH activity plan – Adopting a room plant: Growing a sense of place in residential treatment
TH activity plan – A sense of place – The Carolinas
TH activity plan - Connecticut nutmeggers: A sense of place
TH activity plan - First encounters with Florida plants
TH activity plan – Military spouses garden club
TH activity plan – Michigan plant diversity: A sense of place
TH activity plan - Texas old garden roses: A sense of place
TH activity plan – Ontario wildflowers: A sense of place
TH activity plan - Nova Scotia plants: A sense of place
TH activity plan - Multiple relocations' sense of place - Military
TH activity plan – Sensory bin
TH activity plan - Georgia red clay soil: A sense of place
TH activity plan – Eating plant parts – Immigrant/refugee
TH activity plan – California native oaks: A sense of place
TH activity plan – Teenagers field guide

THAD Therapeutic Horticulture Activity Database

Activity: Nature Goal: Cognitive/Intellectual Populations: All

TH Activity Plan – First Encounters with Florida Plants

Text by Lesley Fleming, HTR, Nancy Ellis & Sami Gibson
Photos by L. Fleming, Aloha Tropicals, Pond Megastore, Leaf Grace, Flowers of India, Better Homes & Gardens
Original Publication: *University of Florida Therapeutic Horticulture Activities Database*

ACTIVITY DESCRIPTION: Participants will be introduced to Florida plants during their first visit to Florida.

THERAPEUTIC GOALS:
Cognitive/Intellectual: Expand horticultural knowledge; strengthen reasoning skills; match plant photos to live plants
Physical: Increase physical exercise; increase intake of fresh air; practice bending, balancing & standing skills & stamina
Psychological/Emotional: Practice social emotional learning; reduce negative thoughts; develop strategies for mood disruptions
Sensory: Use all 5 primary senses to explore plants
Social: Expand social interactions; practice cooperative work with group members

Materials

Plant specimens

Optional: flash cards,

Gloves, wipes

STEP-BY-STEP PROCESS:

1. **Pre-Session Preparation:** Confirm outdoor garden is accessible, safe & available for session.
2. Facilitator begins session by having plant specimens on table or gathering spot to excite participants. The session, indoors or outdoors is an introduction to Florida plants, particularly for first-time visitors to the state. Note that plants vary by regions within the state. Ideally the workshop/session would occur in a garden or nature setting but can be adapted to indoor settings.
3. Facilitator shares some horticulture & safety points with group, then begins leading the walk outdoors. Several methods can be used depending on the group: pre-walk use of flashcards of plants with identification of these plants in garden; or engagement during the walk - asking participants to point to interesting plants (trees, shrubs, flowers) to be named/discussed during walk.
4. Conclude session by asking participants if they enjoyed session, learned some new plant information, interacted with others, felt more connected to nature from the walk, & improved their sense of wellbeing.

APPLICATIONS FOR POPULATIONS: Structured as a workshop to enhance wellbeing, this TH activity can provide multiple therapeutic goal opportunities from social interactions, physical exertion and cognitive stimulation. The primary focus though is on introducing and expanding participant knowledge of horticulture specific to Florida. Other applications by facilitators, botanical garden staff, or educators can be specific to other zones, states, or regions. Wellness populations and others with medical, mobility, vision or other health challenges can use this workshop format to focus on wellness in the outdoors, where health challenges are not overly emphasized and participation normalizes time in nature, enjoyment of plants, and group activities.

Cognitive goals can include using reasoning skills and fostering brain development by matching photos to actual plants, strengthening language skills by describing plants, increasing knowledge and identification of plants.

Strategies for improving emotional health can be incorporated into the workshop. These can include reducing stress, being mindful, strengthening social connections and being in nature (National Institutes of Health, 2022; Hurley & Walker, 2019).

SAFETY CONSIDERATIONS: Facilitators are responsible for knowing poisonous and toxic plants and plant parts. Consideration for mobility, accessibility, sun protection and hydration should be undertaken prior to session. Touching of plants is not recommended for specimens that are toxic, thorny or sappy.

NOTES OR OTHER CONSIDERATIONS: Florida, like other states and regions can provide many plants specific to the area, with interesting colors, shapes, forms, and with curious plant facts and history. The following are a few plant examples for Florida. Pictures of flowers below are in the order as listed in the table.

Flowers	Shrubs	Trees
Shell Ginger (*Alpha zerumbet*) Clusters of shell-like yellow/brown/red flowers	**Ti Plant** (*Cordyline terminalis*) Varieties w various colors: red/pink	**Banyan** (*Ficus benghalensis*) Aerial roots grow down from branches; like a dense thicket
Mexican Bluebell (*Ruella brittoniana*) Mauve & blue flowers lasting 1 day	**Thryallis** (*Galphimia glauca*) Bright yellow flowers on terminal spikes; attract bees & pollinators	**Royal Poinciana** (*Delonix regia*) Canopy of scarlet blooms in May w compound leaves
Bird of Paradise (*Strelitzia reginae*) Bracts within orange & blue sepal w blue petals, uniquely shaped	**Ixora** (*Ixora coccinea*) Big balls of yellow, reddish blooms	**Gumbo Limbo** (*Bursera simaruba*) Red/silver-red peeling bark, sometimes called the tourist tree
Calathea (*Calathea* spp.) Green/pink/white patterned leaves	**Chenille Plant** (*Acalypha hispida*) Long strands of soft flowers	**Tabebuia** (*Tabebuia caraiba*) Bright yellow blossoms in spring
Pentas (*Pentas lanceolata*) Star-shaped flowers, regular & dwarf sizes, in many colors	**Beautyberry** (*Callicarpa americana*) Fruits turn purple, in clusters	**Sea Grape** (*Coccoloba uvifera*) Circular leaves w red veins, edible purple fruits & salt tolerance





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Freepik, Jung Seeds, The New Yorker, Homes & Gardens, Nashville Tree Conservation,
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Discover.Hubpages.com, Reddit, Vegetables West.com, Webstaurant Store,
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Better Homes & Gardens

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Healthcare Gardens for Cancer Survivors, Patients & Care Partners

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We acknowledge the unceded ancestral homelands of Indigenous peoples, particularly the Tocobaga and later the Seminole Tribe of Florida.