

Practices of Coexistence: Exploring Human-Nature Relations in Urban Community Gardens

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ABSTRACT

This study examines how human–nature relations are enacted, negotiated, and made meaningful within two distinct community garden settings. The research explores how humans, nonhumans, and material entities co-constitute everyday practices and how these practices form, transform, and interconnect. Ethnographic fieldwork was conducted at two urban garden sites selected for their forms of community involvement and ecological engagement. Participatory observation and interviews were conducted, and the data were analyzed using thematic analysis of fieldnotes and interview transcripts. The first garden is characterized by long-term continuity, strong neighborhood identity, and a diverse group of local residents who receive plots through an annual lottery. Spatial and material decisions play an important role in place-making and reinforce communal belonging. The second site is a student-led community garden guided by ecological agriculture principles. Participants co-create social spaces, build infrastructures, and collectively solve problems arising from environmental conditions. These practices reveal cycles of experimentation, learning by doing, and close observation of natural processes. Gardeners actively negotiate the boundaries of intervention by adopting low-impact techniques, biodegradable materials and regeneration methods while constructing necessary infrastructures. Field observations from both sites show how gardening practices intertwine social, ecological, and material relationships. Both sites illustrate how self-built infrastructures, material improvisation, and everyday spatial decisions contribute to place-making and to the shaping of sustainable micro-environments. By analyzing how everyday practices and multispecies relations come together in these two community garden settings, the study contributes to understanding how ecological coexistence is cultivated and how community-led spaces model responsible human–nature relations.

Keywords: Community gardens, Human-nature interactions, Sustainable urban practices, Social practice theory

INTRODUCTION

Rapid urbanism is triggering multifaceted environmental crises and also disconnecting humans from the natural world. Contemporary design discourse is shifting its focus away from reinforcing expansion toward addressing these disconnections within social and natural ecosystems. As researchers across diverse fields—including design, anthropology, and Human-Computer Interaction (HCI)—reimagine our relationship with

the environment, a critical consensus is emerging: the necessity of moving beyond human-centric narratives (Rosén et al., 2022; Liu, 2019).

Central to this shift is the more-than-human perspective, which highlights the agency of plants, animals, soil, and various materialities that co-constitute the fabric of everyday life (Camocini & Verganti, 2021). The evolution of design research is moving toward fostering symbiotic cohabitation within a shared, multi-species world (Wakkary, 2021).

In this context, urban gardens emerge as examples where these complex relationships are enacted in the city life. These spaces are hubs for community engagement and active engagement with nature. Understanding the hybrid dynamics of human-nature interactions requires going beyond individual behaviors to examining the routines and relations that organize gardening activities. Social and material contexts are inseparable and cannot be isolated from each other (Welch et al., 2020). Social practice theory (Shove et al., 2012) provides an analytical lens to focus on the dynamic configuration of materials, competences and meanings. With this approach, the study investigates how gardening practices emerge, transform, or disappear, offering an understanding of how multispecies cohabitation is practically negotiated in urban settings. In this study, other-than-human living beings and ecological processes are recognized as active participants and co-constitutors of gardening practices.

TWO CASES: UNIVERSITY COMMUNITY GARDEN AND NEIGHBORHOOD ALLOTMENT GARDEN

The first garden is a student-led community garden organized through horizontal structures and guided by ecological agriculture principles. Central practices include using heirloom seeds, composting, improving soil health, and minimizing environmental harm. Material sourcing relies heavily on reuse, recycling, and foraging, creating a strong culture of resourcefulness. Participants co-create social spaces, build infrastructures, and collectively solve problems arising from environmental conditions. These practices reveal cycles of experimentation, learning by doing, and close observation of natural processes. Gardeners actively negotiate the boundaries of intervention by adopting low-impact techniques, biodegradable materials, regeneration methods, and minimal-disturbance design choices while constructing necessary infrastructures.

The second site is characterized by long-term continuity, strong neighborhood identity, and a diverse group of local residents who receive plots through an annual lottery. Here, gardening practices involve mutual aid, intergenerational learning, shared use of tools, and the coexistence of human and nonhuman actors such as birds, plants, soil and insects. Spatial and material decisions play an important role in place-making and reinforce communal belonging. The garden also functions as a public space shaped by collective celebrations and seasonal activities, strengthening neighborhood ties and producing a multifunctional social–ecological environment.

Fieldwork: Identifying Practices

Ethnographic fieldwork was conducted at two urban garden sites selected for their forms of community involvement and ecological engagement. Participatory observation, informal conversations, and six semi-structured interviews were carried out, and the data were analyzed through thematic analysis of fieldnotes, observations, and interview transcripts.

Gardening emerges as a constellation of everyday practices that are continuously reproduced, adapted, and negotiated in relation to ecological conditions, social arrangements, and material constraints. While both sites cultivate ecological care through hands-on engagement with soil and plants, the temporalities, organizational forms, and degrees of stabilization of these practices differ significantly.

University Community Garden

Tarlaban is a student-led community garden organized around ecological agriculture principles and a horizontal hierarchy model articulated through a collective manifesto. Gardening practices are carried out collectively during weekly Sunday gatherings, which combine cultivation work, social interaction, and shared meals. Participation fluctuates seasonally and in relation to the academic calendar, with new members joining particularly at the beginning of the semester.

Gardening practices are shaped by ecological values such as careful intervention, avoiding chemical inputs, and regenerating soil. Participants rely heavily on reclaimed and biodegradable materials, primarily wood, cardboard, and food waste sourced from the campus and surrounding areas. Material sourcing is an integral practice that challenges social norms around waste while supporting composting, mulching, and infrastructure-building activities. Learning in the garden occurs through experimentation, observation, and embodied engagement with plants and environmental conditions. Participants adjust practices by observing plant growth, sunlight exposure, and soil conditions. Knowledge circulates informally through shared work, observation, and peer instruction, enabling newcomers to gradually acquire gardening skills.

Practices such as composting, mulching, seed germination, and pest management are closely interrelated and guided by low-impact ecological techniques. Encounters with nonhuman actors—including beneficial plants, pests, and soil organisms—shape decisions about intervention and care. Through these practices, the garden emerges as a space where social relations, ecological processes, and material improvisation are co-produced.

Neighborhood Allotment Garden

The allotment garden is a historic neighborhood garden that functions as both a cultivation space and a social commons within the urban fabric. Individual plots are allocated annually to residents through a lottery system, creating long-term continuity while accommodating diverse users across age groups and cultural backgrounds. Gardening practices are organized

around individual plots but are embedded in shared routines, infrastructures, and informal social interactions. The municipality provides tools, water access, and seasonal planting guidance, while experienced gardeners share practical knowledge through everyday encounters. Learning occurs through observation, neighborly advice, and intergenerational exchanges, fostering a collective culture of care and mutual support.

Gardeners personalize their plots through material choices, planting strategies, and small decorative elements, contributing to a strong sense of place and belonging. Everyday practices such as watering, weeding, and harvesting are shaped by individual schedules but intersect through shared norms of attentiveness to plants, soil, and neighboring plots. Interactions with ecological elements—such as pests, soil conditions, and seasonal cycles—prompt continuous adaptation and learning. Gardeners describe deep satisfaction in harvesting their own produce, linking embodied labor, sensory experience, and emotional attachment to the garden. Through these practices, the garden sustains neighborhood relations and cultivates a shared urban ecological space.

While both gardens cultivate ecological care through everyday practices, they differ in how practices are organized, sustained, and transformed over time. The university garden foregrounds experimental practice bundles characterized by improvisation, learning-by-doing, and ongoing negotiation with ecological processes. On the other hand, the neighborhood garden sustains stabilized practice bundles that rely on continuity, shared memory, and routinized engagement with ecological processes. Through material arrangements, embodied competences, and shared meanings, gardeners in both contexts actively shape micro-environments that reflect distinct modes of relating to nature. By examining these practice bundles and their dynamics, the study reveals how everyday actions contribute to the cultivation of sustainable human–environment relations in urban settings.

FINDINGS

The analysis offers different lenses for understanding urban gardening practices and reveals how these practices are organized, experienced, and sustained across distinct contexts. By focusing on practice bundles, the findings highlight both the similarities and differences between the two gardens in shaping social, ecological, and material relations.

Social Ecologies

Urban community gardens operate as social infrastructures where collective practices bring people together through shared responsibilities and values. Social ecologies emerge through everyday gardening practices, shaping participation, community formation, and the continuity of these practices over time. Across both sites, shared motivations and values play a central role in recruiting participants and sustaining engagement. Embodied participation—working together, facing difficulties, and achieving outcomes—builds

competence and strengthens collective capacity. Through these shared practices, communities are formed. Commensality further supports social bonding by creating informal spaces for interaction with food.

The two gardens demonstrate different social configurations. In the neighborhood allotment garden, community emerges through long-term continuity and shared locality, as residents gradually build relationships through routine practices. In the university garden, togetherness is produced through collective action itself, as participants come together specifically to carry out gardening practices, continuously reconstituting the community.

Reliance on voluntary participation can also challenge the sustainability of these practices. Fluctuating participation makes visibility, external relations, and hospitality important for recruitment and continuity. Participants emphasized creating welcoming spaces and organizing diverse social and cultural activities to broaden engagement. Knowledge exchange and documentation were identified as crucial for sustaining practices, particularly in contexts with high participant turnover. A shared culture enables the sustainability of urban gardening practices by creating strong community bonds. Knowledge transfer was found to be important for fostering a shared culture in young communities and for transmitting and preserving the culture that exists.

Human-Nature Relations

Urban gardening practices are shaped by ongoing interactions between human intentions and nature's agency. Findings show that gardeners perceive the garden as an active participant that evokes emotions, requires care, sets limits, and responds to human intervention. Human-nature relations are enacted as continuous negotiations through everyday practices. Across both sites, gardening emerges as a co-created process in which human actions are constantly adjusted in response to ecological conditions and other species. Natural processes may challenge, redirect, or occasionally align with human intentions, shaping how practices are organized and sustained.

Ecological literacy plays a crucial role in enabling responsible engagement with nature. Participants emphasized the importance of observing plants, soil, and environmental conditions in order to interpret natural cues and avoid unintended harm. Learning involves developing sensitivity to feedback from nature, building cause-and-effect relationships, and acting accordingly. This form of learning resembles acquiring a language, as understanding develops through repeated engagement, attention, and experience rather than abstract instruction. Gardeners described how noticing small changes and learning from mistakes gradually improves their ability to respond to ecological rhythms that exceed human control. Recognizing humans as part of, rather than separate from, nature supports a relational approach to gardening in which care, restraint, and adaptation are central. Through these practices, urban gardens become sites where ecological coexistence is actively learned and enacted.

Material Engagements

Material engagements play a central role in shaping urban gardening practices by enabling, mediating, and constraining social and ecological relations. Following Shove's (2017) categorization, these materials play three distinct roles. Infrastructures which are necessary background arrangements, devices such as tools and artifacts that are directly mobilized or manipulated, and resource materials that are used up during the practice.

Tools, infrastructures, organic matter, and digital artifacts are integral to how practices are carried out and sustained. Moments of breakdown, improvisation, and unintended effects make visible how gardening practices depend on specific material arrangements. Gardening involves continuous interaction with materials through embodied and sensory engagement. Bodily labor, sensory attention, and attunement to the garden—such as smelling plants, noticing colors, or tasting harvested food—contribute to meaning and emotional attachment. These sensory experiences support commitment to the garden, facilitate learning, and encourage participation by making practices tangible and rewarding.

Material practices in urban gardens extend beyond cultivation to include making, transforming, and repairing. Gardeners creatively adapt materials and spatial arrangements in response to constraints, emphasizing reuse, improvisation, and circularity over consumption. Developing collective capacity to meet material needs reduces dependence on external resources and supports the continuity of practices. Findings highlight that materials have agency in shaping both ecological processes and social interactions. Sustaining urban gardening practices, therefore depends on maintaining sociomaterial conditions that keep practices possible, meaningful, and ecologically responsive. Through everyday acts of transforming, sensing, and dwelling, material engagements reveal the hybrid character of urban gardens.

Environmental Context

Gardening practices in urban gardens are shaped by, and contribute to, broader environmental values and future possibilities. Participants situate their engagement beyond gardening tasks, reflecting on urban ecological issues, reassessing personal habits, and considering their responsibilities toward environmental change. Embodied interaction with soil, plants, and seasonal cycles increases ecological awareness and informs everyday practices. These individual transformations gain strength through social encounters within the garden. Working side by side allows practices to be observed, discussed, and shared, enabling ecological values to circulate collectively. Participants described urban gardening as a response to urban pressures, often framing it as a form of refuge or resistance to ecological degradation. In this sense, gardens function as experiential spaces where alternative ways of living are enacted rather than abstractly imagined.

Findings show that engagement with material and ecological cycles extends beyond the garden, influencing consumption habits, waste practices, and attitudes toward sustainability. Urban gardens thus operate as learning environments where ecological sensibilities are developed through practice.

Participants frequently described their gardens as seeds for broader change, imagining their practices as models that could inspire wider cultural shifts toward sustainable urban living. By providing tangible, situated examples of sustainable practices, urban gardens act as counter-spaces within the city. They demonstrate how ecological care can be embedded in everyday life and sustained over time. The future-oriented visions expressed by gardeners highlight the potential of community-led practices to contribute to long-term environmental transformation within urban contexts.

CONCLUSION

Field observations from both sites show how gardening practices intertwine social, ecological, and material relationships. Human–nature interactions shape routines such as planting, maintaining, protecting, and adapting to environmental challenges. Participants build emotional connections to soil and crops and develop ecological sensibilities through direct experience. Material practices—such as making, collecting discarded materials, or maintaining tools—play a critical role in sustaining the gardens. Both sites illustrate how self-built infrastructures, material improvisation, and everyday spatial decisions contribute to place-making and to the shaping of sustainable micro-environments.

By analyzing how everyday practices and multispecies relations come together in these two community garden settings, the study contributes to understanding how ecological coexistence is cultivated and how community-led spaces model responsible human–environment relations.

The insights gained from these two distinct models provide a framework for future research to explore the transferability of community-led ecological practices to diverse urban design contexts and larger-scale environmental interventions.

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