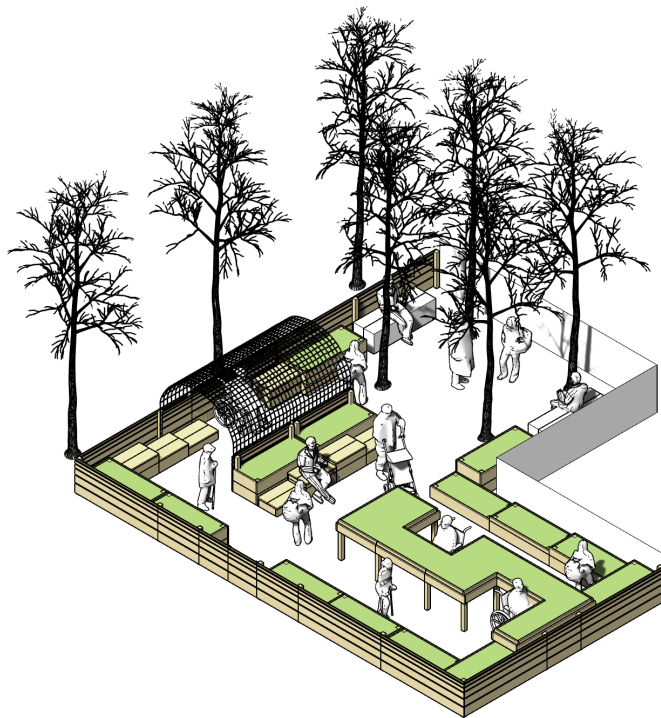


Rutgers Universal Access Garden Pilot

178 Jones Avenue
New Brunswick NJ



Research Council Social and Racial Justice Grant

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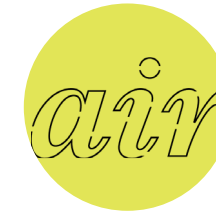
Douglass Discovery Program

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This project is funded by a Rutgers Research Council Grant. The Rutgers Research Council Awards and Subvention Program offers grant opportunities to support faculty research and especially to encourage scholarship tackling challenging disciplinary problems in the sciences, social sciences, humanities, and creative arts.

The Research on Social and Racial Justice Awards Program, inspired by President Holloway's Equity Report and the University's commitment to fostering excellence in and as a beloved community, supports academic research on racial and social justice in all domains of intellectual, social, artistic, and environmental life.



What is the AIR Collaborative?

The Arts Integration Research (AIR) Collaborative's mission is to pursue creative placemaking to foster spatial justice through multidisciplinary research and curricular agendas that benefit the Rutgers-New Brunswick campus and surrounding local communities.

What the arts and humanities produce serves as a conduit for knowledge in our daily lives, beyond the traditional academic sense of knowledge absorption: We learn about our communities by walking them, talking with our neighbors, interacting with the layers of space, sound, and people beneath our daily routes. Building on local histories and landscapes, we aim to create opportunities for people to engage with the spaces around them.

AIR Collaborative projects promote interdepartmental and cross-school collaboration while providing students with experience-based education and interdisciplinary networking opportunities.

Our mission:

- Advance thinking and action around how the arts can intervene in social, political, and environmental structures and frameworks
- Promote walking as transformative action
- Foster spatial justice for people with disabilities
- Improve awareness of the complex histories of Rutgers and its commitment to building an inclusive community and caring for the well-being of its members
- Initiate dialogues around the intersectionality of spatial justice, racial justice, environmental justice, and public health

Universal Design in Gardening

Gardening involves cultivating and growing plants, both ornamental and edible. It offers an abundance of benefits that serve the well-being of people. A garden that is accessible to people from all walks of life is extremely important for individuals and communities. We acknowledge that plants produce clean air to help with public health, but not all of us know that plants also have a big impact on mental health and rehabilitation.

Healthy Plants = Healthy People = Healthy Community

Horticultural Therapy

The Department of Plant Biology at Rutgers runs a Horticulture Therapy Program to teach students how to use plants and plant based activity for human healing and rehabilitation: "Plants and horticultural activity have unique qualities that lend themselves well to the rehabilitation of individuals with disabilities, as plants will respond to anyone providing care, no matter the person's age or intelligence, race, religion, and cultural background. In addition, studies show that success with plants can lead to successes in other aspects of life, which is important to individuals recovering from health conditions or adjusting to disability." [<https://plantbiology.rutgers.edu/hort-therapy/whatis.html>]

Therapeutic Benefits of Gardening

Cognitive Benefits

The process of gardening has components that challenge attention and memory, making gardening a great opportunity to practice mindfulness and other high level cognitive skills such as problem-solving and critical thinking. The process of gardening can also be used to help patients with decreased awareness orient to space and time.

Covered and uncovered areas with adjustable seating assure accessible sensory and temperature regulation.

People with Alzheimers

Sensory gardens are able to bring back memories. This is due to the olfactory bulb in our brains being directly connected to the hippocampus and amygdala.

Physical Benefits

Working with plants has benefits for fine motor and gross motor coordination as well as balance, cardiovascular, and muscle strengthening as tasks involve reaching, weeding, crossing midline. Gardeners can collaborate with occupational and horticultural therapists to develop the routine most appropriate for them. It is of great important that people with disabilities eat healthy. Gardening can provide a context for education on nutrition.

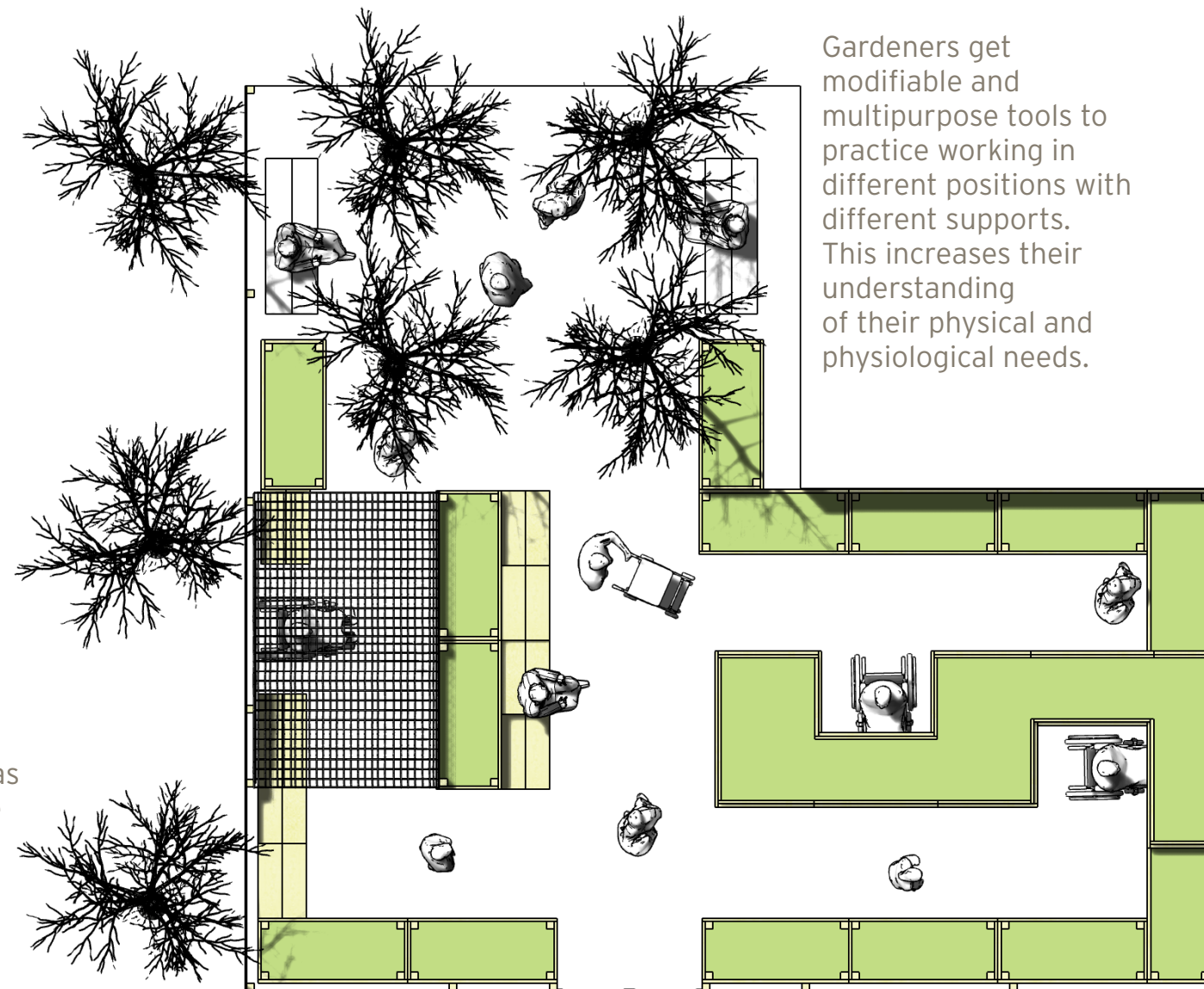
Emotional Benefits

Connecting to nature and being around greenery has been proven by multiple scientific studies to reduce

stress. Patients in hospitals will spend less time recovering if they have a view of greenery outside of their window, morale of workers is higher, if they have a green space somewhere in their workplace, and people generally report being happier and more calm when they encounter any green space. Community building and neighborhood attachment are other of the many benefits of having access to green spaces!

Sensory Benefits

From smelling flowers, to feeling the soil, to hearing trickling water, to seeing growth of plants; there are many opportunities for sensory engagement while gardening. As a result, gardens are a great opportunity for skilled clinicians to help their clients learn how to regulate their sensory system by increasing their understanding of when their bodies require different types of input. Sensory interventions have been found to be beneficial for people with psychiatric disorders and developmental disorders, notably autism spectrum disorder.



Gardeners get modifiable and multipurpose tools to practice working in different positions with different supports. This increases their understanding of their physical and physiological needs.

The raised beds have different heights to accommodate all abilities; the garden features a grassy, shaded service dog area.

What is Universal Design?

The process of creating an environment that is accessible, understandable, and usable for all people—regardless of their age, size, aptitude, ability, or disability—is known as universal design.

What does it mean to make a space accessible?

The aim is to facilitate access for people of all abilities; assistive technology may be applied. The DO-IT (Disabilities, Opportunities, Internetworking, and Technology) Center defines seven major principles in applying universal design to places:

1 Equitable use Design is useful and marketable to people with diverse disabilities

2 Flexibility in use Accommodates a wide range of individual preferences and abilities. For example, a museum allows visitors to choose to read or listen to content

3 Simple and intuitive use Easy and clear to use and understand, regardless of the user's experience in language, knowledge and skills

4 Perceptible information Communicates necessary information effectively to the user, regardless of ambient conditions or sensory abilities, like video captioning

5 Tolerance for error Minimizes hazards and adverse consequences for accidental actions, providing guidance

6 Low physical effort Can be used comfortably and efficiently with minimum effort

7 Size and space for approach and use Provides appropriate space, reach, manipulation, and use, regardless of the user's body size or mobility, as in adjustable tables

Source: Sheryl Burgstahler, "Universal Design: Process, Principles, and Applications," Disabilities, Opportunities, Internetworking, and Technology (DO-IT) [<https://www.washington.edu/doit/universal-design-process-principles-and-applications>]