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SHORT COMMUNICATION

## Horticultural therapy in the landscape architecture: Therapeutic garden

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### ABSTRACT

Horticultural therapy uses living plants, their products, and the natural environment to provide evaluation therapy, and rehabilitation within a medical model. It is recommended for people who have emotional, physical, educational, and/or behavioral problems. In recent years, a significant rise of interest in therapeutic gardens in the USA, Canada, Europe and the Pacific region, such as Japan, New Zealand or Australia has been observed. Such gardens are specially designed to contain many solutions important for health care, rehabilitation and other types of therapeutic institutions. This article describes the most important aspects of therapeutic garden.

**Keywords:** gardening, green care, healing, horticulture, therapeutic gardens

### 1. INTRODUCTION

Terms such as “Green Care”, “Farm Care” and “Farming for health” represent a new social movement [Haller 2016, Stevens 2018, Garcia-Llorente et al. 2018, Wagenfeld et al. 2018], which uses the benefits of horticultural therapy and dynamically develops throughout

Europe, Canada and New Zealand. There are many subtypes of therapeutic gardens, including: healing gardens, soothing gardens, rehabilitation gardens and regenerating gardens [Kavanagh 1995, Kim 2003, Świderska 2017, Laforteza et al. 2018, American Horticultural Therapy Association AHTA website].

## **2. THERAPEUTIC GARDEN**

A therapeutic garden is a space designed primarily to improve the well-being of people [Relf 1995, Kankan 2018]. The garden assumptions of a therapeutic nature are mainly developed in health and social care facilities [Kamioka 2014]. Contact with nature, even passive and even only visual, reduces stress, relaxes and evokes positive emotions [Predny and Relf 2000, Predny and Relf 2004, Marcus 2018]. Even placing photos of the natural environment and vegetation in the hospital room can improve the mental state of patients after heart surgery [Shoemaker 2002, Soderback et al. 2004, Świderska 2017, AHTA website].



**Figure 1.** The Battery Urban Farm is an educational farm where New York City’s students, residents, and visitors experience sustainable farming, enjoy tasting organic fresh foods, and learn environmental stewardship (photo by P. Salachna)

Work in the therapeutic garden provides health benefits to its users, improving both their physical and mental condition [Marsh et al. 2018]. People with depression who take part in horticultural therapy classes can improve their health [Liao et al. 2018]. An important element of horticultural therapy is to create opportunities for patients to wrench away from health

problems, arouse involuntary attention and fascination [Watts and Hsieh 2015, Świdarska 2017, Morgan 2019].

A therapeutic garden, if properly designed, can support and stimulate the healing process [Yun and Choi 2010, Wells 2014]. Treatment is the result of a direct user's relationship with the natural environment [Marsh et al. 2017, Oh et al. 2018, Paiva 2018]. An enormous plus of this type of rehabilitation is that it is sufficient to be in the garden, the presence of medical staff is not necessary for its therapeutic effect. However, people who have problems with movement or orientation should be taken into account, and then support might be necessary during the stay in the garden. The presence of therapists is also necessary during the course of horticultural therapy classes [Neuberger 1994, Odeh and Guy 2017, Świdarska 2017, AHTA website].

### **3. DESIGNING THE LANDSCAPE**

The basic features of therapeutic gardens include wide, gentle and accessible entrances and paths, plants planted in containers. The selection of species is primarily oriented to their sensory properties – the interesting ones in terms of their color, texture or scent are selected. The garden, thanks to the fact that it is free of stressors, constitutes a safe, human-friendly place [Momtaz 2017, AHTA website]. Illness or disability can cause tension and anxiety, by staying among greenery it is possible to reduce these states and introduce a sense of peace, order and harmony. Walking around the garden and contact with plants directs attention from difficult internal experiences to an attractive, friendly outside world. Thanks to the possibility of performing various types of gardening works, one can enrich the forms of leisure, it is an active rest, relaxation and even rehabilitation in a natural environment [Xu et al. 2015, Xue and Wang 2015, Świdarska 2017].



**Figure 2.** Having a garden that's suited to the needs of the disabled can be a vital part of recovery. Raised bed gardening enables plant maintenance for disabled people (photo by A. Zawadzińska)



**Figure 3.** The landscape designers have consciously worked with colors and forms in the therapeutic garden (photo by P. Salachna)

Plants should be placed on elevated flower beds, in tall containers or vertical structures, in order to allow access to them and contact with them to wheelchair users, people with walking frames, walkers or crutches. Flower beds on which plants are grown and tables for cultivation and care of plants can be made of wood, stone or brick. Plants can also be grown in containers, large pots, hanging containers and using various types of vertical solutions, such as plant cultivation on vertical supports or green walls [Hefley 1973, Horowitz 2012, Świdarska 2017, Stevens et al. 2018].



**Figure 5.** Herbs are easy to grow, nutrient rich and add flavor to food. Raised bed help disabled people touch them and savor their fragrance (photo by A. Zawadzińska)

Properly selected, safe tools for users should be used for planting. There are specially adapted tools for the ill and disabled, they are light, with telescopic sticks, they have additional handles and are mounted directly to the hand [Jiang et al. 2018]. A garden designed and furnished in accordance with these principles can become a perfect place for rehabilitation taking place in natural surroundings. In addition, it will be an ideal place for social integration or personal meditation and tranquility for people struggling with illness or disability [Ferrini 2003, Świdarska 2017, Capra et al. 2019, AHTA website].



**Figure 6.** Interactive childrens play area  
(photo by P. Salachna)

#### **4. CONCLUSION**

A therapeutic garden should be designed and arranged in such a way as to influence users in various areas. Aesthetics must encourage people to visit it, to leave the building walls, to change the surroundings. Thanks to the visually pleasing image, as it should be, and cleverly designed space, the garden reduces stress, facilitates socializing and enables finding peace and a place of seclusion. This space should allow free walks, even for people with disabilities, and more active rest. The use of therapeutic gardens can be both passive – walks, outdoor activities, and active – participation in horticultural therapy and gardening activities, suitably selected for each participant (Kavanagh 1995, Stoneham and Jones 1997, Świdarska 2017, AHTA website).

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