



# THERAPEUTIC AND INCLUSIVE ORGANIC HORTICULTURE: AN UNIVERSITY-SOCIETY COLLABORATIVE LEARNING EXPERIENCE



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<sup>1</sup>Labrador, J., <sup>2</sup> Pérez, A., <sup>3</sup> Moreno, M.M., <sup>2</sup> Pérez Vera, F.

<sup>1</sup>. College of Engineering Agriculture, University of Extremadura, Badajoz, Spain . <sup>2</sup>. Sorapán de Rieros Foundation. Badajoz. <sup>3</sup>. University of Castilla-La Mancha, School of Agricultural Engineering. \* labrador@unex.es

Therapeutic horticulture is a discipline belonging to society and health sciences that has its own identity, which differentiates it from others. It arises as a result of the complementary fusion of two disciplines: horticulture and therapy or rehabilitation. In the therapeutic field, it incorporates knowledge about physical, cognitive and sensory disabilities, different pathologies, psychosocial problems and special needs; Around horticulture, it allows us to develop knowledge about agriculture, gardening, landscaping, environment and the like. It has been used, for educational and socialization purposes, for more than half a century, since then with great implantation and recognition in many countries.

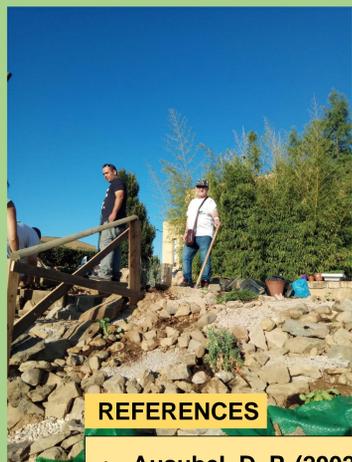
The implementation of an organic garden with pedagogical purposes for students of Agroecology of the School of Agricultural Engineering of the University of Extremadura, has been the scene for the realization of a collaborative project of teaching - integrative - learning between the University and the Sorapán de Rieros Foundation; this project has allowed the use of the ecological orchard created for pedagogical purposes based on the needs of students with mental disorders of different nature with whom the Foundation works, to connect like that different points of view.

The specialized training in Permaculture, Organic Agriculture and Agroecology, the tutoring work with specific methodologies of the expert staff of the Foundation in Psychology and Psychiatry, as well as the coexistence with the students of the School has been an enriching experience, with enormously satisfactory results in the improvement of mental and physical health, as well as the labor integration of the Foundation's students.

## METHODOLOGY

- The Foundation applies its own protocols for the selection of people with similar diagnostic profiles and for the evaluation of work skills.
- The work of the students in the garden is protocolized by the University staff and by the Foundation's monitor to achieve the student adaptation to the environment and the community. Socio-behavioral and knowledge aspects were assessed through simple questionnaires at the beginning and the end of the experience.
- For the practice of the inclusive space design and the teaching of the orchard's management, the General Systems Theory (Bertalanffy, 1976) was adopted.
- For the context of design, self-sufficiency, cooperation and human-nature interdependence, the principles stated by Mollison et al (1988) were considered.

## THEORETICAL FRAMEWORK AND DISCUSSION



▪ Patients with mental disorders suffer stereotypes associated with their illness and their abilities, which gradually build barriers in their life process. The ecological therapeutic orchard gives them the opportunity to reinvent themselves based on their potential capacities.

▪The direct and indirect benefits that the contact with nature offers to human are enormous. This relationship comes from biology itself. In this sense, the term "*biophilia*" (Wilson, 1984) starts from the hypothesis that we are innately related to nature, showing that people obtain physiological and psychological benefits when exposed to natural environments.

▪The Nature Deficit Disorder (Louv, 2008) is part of a set of problems called "*psychoterratic illness*" (Corraliza, 2008), defined as disorders that have their origin in a deficit or pathological relationship with the environment (home/territory) where they live.

▪The therapeutic ecological orchard is a space that allows the expression of past and new skills in an environment conducive to greater mental calm in a healthy context, since this space has been built following the technical standards of organic production (Labrador, 2016) and permaculture.

▪The significant learning explained by Ausubel (2002) implies the acquisition of knowledge based on the previous ones, which will attribute a personal meaning that will facilitate their memory through a motivational process that helps to strengthen it

▪The guided work in the orchard within a process of recognition of the individual, individually or forming part of a team, has allowed showing the options that people have to rebuild the reality from elements that can be found here and now, expanding personal narratives and life possibilities (Berguer, 2006).

▪The General Systems Theory (Bertalanffy, 1976) has allowed us to teach the practice of organic horticulture and permaculture from the multitude of needs and potentials (Labrador, 2016).

▪The opportunity to work in an educational environment trying the integration of the students through the development of their practices in the organic orchard has generated a positive "Pygmalion" effect, which refers to the phenomenon whereby higher expectations lead to an increase in performance.



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Design of the stairs to the garden



Permaculture recycling model for irrigation



Sowing of seedbeds by the students



Adaptation of pots for continuous irrigation