It is becoming more and more common nowadays to observe the disaggregation of human bonds, and the surge of individualism for self-determination (2021, The care collective). This aspect brings along many consequences in several fields, among which the way we conceive health and health care.

The project Green-Up Your Community! aims to foster social inclusion of vulnerable youth with Social Anxiety Disorder, through the devise of a community led approach to inclusion, that has at its core the prototyping of an inclusive Caring Garden, designed for the specific needs of youth.



edited by No-Gap Élan Interculturel Linaria Inspira!

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Co-funded by the

European Commission

YOUR COMMUNITY gardens for social inclusion of youths with Social Anxiety Disorder

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GREEN-UP Your community!

Community gardens for the social inclusion of youths with Social Anxiety Disorder



YOUR COMMUNITY

Edited in May 2023

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Activity 1 FoundAtion Bricks



COMMUNITY GARDENS a brief research at local and national level

The cultivation of community gardens is an important collective phenomenon that began to spread throughout the United States around the end of the nineteenth century in order to meet the needs of the poorest social classes during crisis periods. Following the cyclical trends of the economy, vegetable gardens were often promoted and financed by local and federal government organizations so that underprivileged social classes could be autonomous in producing basic foodstuffs for their families and local small businesses. "Fresh food, fresh air, exercise and education" was the motto used to encourage the cultivation of these gardens.

Not only were they a source of sustenance, community gardens also offered job opportunities for the unemployed by simultaneously encouraging the integration of immigrants in the new collective fabric, thus emerging as an efficient social 'rallying' factor from the very beginning. Nourishment for body and spirit, a place for moral education, a community garden was also a "gymnasium" to strengthen oneself against the rigors of the new climate, instilling in the gardener a sense of ownership, respecting what also belonged to others and developing an awareness of responsibility and feelings of love towards Nature and God.

Propaganda transformed poor potato growers into honest, healthy men; it transformed them into heroes who could keep the nation going in times of crisis. Nevertheless, this image was far from the reality of intense inequality, poverty and social deterioration, where these urban vegetable gardens were nothing more than a desperate palliative to try to cope with the harshness of the economic depression. There are seven partially overlapping movements during which community gardens were used as transitory, emergency measures. The first organized program, called Potato Patches (1894-1917), was developed during the economic crisis that started in 1893. Two years later, in 1896, 184 hectares were already divided into small lots destined for the cultivation of potatoes, beans, cabbage and other vegetables. This example was immediately followed with success in other big cities like Chicago, NewYork, Baltimore and Philadelphia.

The second movement, School Gardens (1900-1920), is different from all of the others because of its specifically educational aims and the special structure of the gardens. Organized like miniature cities, they were supposed to teach children in poor neighborhoods about fundamental civic values, like consideration and care of public property, honesty, civic pride and the dignity of work.

With the entrance of the United States in the First World War and the political, economical and social changes that followed, the period of Liberty Gardens (1917-1920) was inaugurated. The scarcity of food drove the National War Garden Commission to create gardens where fruit and vegetables could be planted and later canned. Thanks to a highly effective combination of military rhetoric and propagandistic posters and slogans, the cultivation of community gardens was a success: a sign of patriotism, community gardens became a symbol of order, unity and the power of the men who had stayed at home. Once again, with the Second World War, propaganda to plant Victory Gardens (1941-1945) spread throughout the country an unmistakable message which was broadcast on the radio and appeared in the daily papers, magazines and catalogues of the sector: "It is the duty of every loyal citizen to do everything possible and make every sacrifice to send provisions to the armed forces in combat". "Vegetables for Vitality, for Victory", "Food for Freedom", "The Seeds of Victory Insure the Fruits of Peace" were the slogans created to encourage the planting of new gardens.

At the beginning of the 1970s, in the wake of the environmentalist movement and thanks to the impulse of the political activism of



the previous decade, the most important urban community gardens movement began, and affected first United States and then the entire world. Unlike what had happened in the past, the initiative had its roots at the bottom, with the citizens, who took the place of a faraway government that was indifferent to the environmental and social emergency that is still threatening the health and safety of many marginalized neighborhoods in the big cities. Since the food crisis was over, what made young and old, rich and poor, students and professionals take part in the conversion of vacant lots into vegetable and flower gardens was the common necessity and desire to make the city more livable by improving the conditions of urban blight in the poorest neighborhoods through the creation of clean, safe green areas. The wide availability of open spaces and the concomitant growth of the urban population were the main reasons that residents of the poor neighborhoods went back to the use of community gardens.

Today, despite continual economical and political changes and even though they are essentially ephemeral, there are more than eight hundred community gardens in NewYork, distributed among Manhattan, the Bronx, Queens, Brooklyn and Staten Island. Involved in the construction and maintenance of the gardens, heterogeneous groups are formed, comprised of men and women who, according to their needs, improvise as planners, gardeners and social animators.Together, they take care of their little Edens and use them as headquarters for educational and cultural promotion, while gardening and different organizational activities become occasions for socialization and integration in the local community. Reference points for adults, community gardens are something precious also to the children, who find spaces to play in and take their first steps in learning about nature.

Lastly, the great importance of the environmental function carried out by these small oases should not be forgotten. They have turned out to be fundamental for controlling and re-establishing the balance of the temperature, noise and atmospheric and acoustic pollution, not to mention the fact that, in some cases, their presence has led to significant changes in the urban landscape.

Next to the great parks and public gardens, individual citizens organize themself in order to dedicate their free time to this "other greenery", and it is not a rarity to meet people who take care of, arrange and transplant annual and perennial flowers in flower beds in the traffic islands, beneath trees, on the side-walks in front of their houses and in every corner where something might grow.





THE KICK-OFF MEETING IN ROMA

The kick-off meeting between the four organizations involved was held in Rome from June 16th to June 18th.

During the first day, the four organizations involved introduced themselves and shared their objectives and working methods with a series of projections highlighting the role of each of the partners within the Green Up Your Community! project.

The second day took place in the garden of the International Women's House in Trastevere where Linaria led a workshop on the topic of participatory planning about a community garden.

Participatory community garden design methodology is an inclusive and collaborative process that actively involves community members in the planning, design and management of a shared garden. Rather than being a top-down approach, where decisions are made by a few individuals, the participatory methodology is based on the idea that those involved have an in-depth knowledge of their local needs, desires and resources. The aim is to create a space where everyone can express their ideas, concerns and

Social anxiety disorder is an intense, persistent fear of being watched and judged by others. For people with social anxiety disorder, the fear of social situations can be so intense that they experience a lost of control.







interests. The group experienced this methodology, which Linaria has been applying since 2011, to see how the project for a new community garden could be realised.

During the afternoon, the group moved to the Community Garden managed by the Kurdish community living in Rome, located in an area within the former Roman slaughterhouse. After a short meeting on the topic of public space and inclusion, the group moved to the Hortus Urbis garden within the Appia Antica Regional Park, along the course of the historic Almone river.

In this space, we were able to observe, on the basis of accurate historical reconstructions made from the texts of Columella, Pliny the Elder, Cato and Virgil, many of the ornamental, horticultural and medicinal plants used two thousand years ago and which are now almost forgotten. Here, the working groups developed, each according to their competencies, the first draft of the design criteria and the activities for our common project.

The third day took place entirely at Mediterranea, a non-profit organisation co-founded and run by Linaria on urban horticulture managed by a group of refugees. After a tour of the park and the herb garden, Elan led the group in a workshop about interculturality, and Inspira! conducted a workshop about environmental education.

In the last part of the day, we defined the next appointments. The meeting was concluded and evaluated.



sharing ideas with our stakeholders

The project "Green Up! Your Community" aims to develop a Community Garden, in order to realize an inclusive space for people who suffer from social anxiety and people who don't.

The team working on the project interviewed people from Italy, France and Portugal to gather ideas, and suggestions related to what a community garden should be like.

The garden prototype has to be developed in four dimensions:

a) green skills by Inspira! (Portugal - Chaves);

b) inclusion by Elan Interculturél (France - Paris);

c) architectural design by Linaria (Italy – Rome);

d) mental health by NoGap (Italy – Rome).

All the interviews consisted of eight questions, but not everyone responded to all of them. The stakeholders' answers are summarized below.

PORTUGAL

Inspira! lead, in the city of Braga, some interviews to the local policy maker responsible for the coordination of Braga's environmental programs and their net of urban farms. Braga, the third biggest city in the country, has 10 urban farms in different neighborhoods, in different shapes, sizes and contexts and to different social groups. But every one of them is set in the same structure and following the same premise.

The farm is divided in a number of slots with the same size (25-50 sm) and is open to the community by an application process in which every inhabitant can apply to the use of one of the slots. The slots are then attributed following the criteria of proximity and social status of the applicant, benefiting the closest residents and the ones from a more disadvantaged background.

The use is renewed every year. The users of the urban farm often use it to cultivate products they can use at home and often share and trade with each other.

Question 1: What is the rationale for selecting the right area where to set-up a community vegetable garden? Which is the relation between people and places?

Choose pieces of lands available.

Question 2: What eco-friendly and sustainable practices are suited to a community vegetable garden?

The use of natural materials for building everything is necessary and have some learning sessions involving people who are interested in most sustainable practises.

Question 3: How to plan the landscape of a community vegetable garden? Question 4: Are there programmes/methodologies applied to the community vegetable gardens already set up?

Question 5: How do community vegetable gardens impact the life-styles of people?

Question 6: What can be done with the products cultivated in a community gardens?

The products can be divided and shared among people who attend the garden.

Question 7: Are the vegetable gardens considering therapeutic aspects? And which ones?

Yes, they help relieve stress.

Question 8: Strengths to consider and errors not to repeat?

One point of strenght is to open up the community garden near schools and social associations.

FRANCE

Question 1: What is the rationale for selecting the right area where to set-up a community vegetable garden? Which is the relation between people and places?

- sunlight;
- needs of the users;
- presence of volounteers included in planning the space.

Question 2: What eco-friendly and sustainable practices are suited to a community vegetable garden?

Limit waste and integrate biodiversity (insects and natural seasonable flora).

Question 3: How to plan the landscape of a community vegetable garden? Place organized to favour mobility and work, rectangular sections, use indications through words or pictograms and lots of colors.

Question 4: Are there programs/methodologies applied to the community vegetable gardens already set up?

Question 5: How do community vegetable gardens impact the life-styles of people?

Connection between inhabitants and nature, tolerance and discover and improve well being and decrease stress.

Question 6: What can be done with the products cultivated in a community gardens?

- vegetable useful for coloring textile;
- donate products to other people to motivate them to participate in the activities.

Question 7: Are the vegetable gardens considering therapeutic aspects? And which ones?

The staksholders found this question too difficult.

Question 8: Strengths to consider and errors not to repeat?

Proceed step by step and involve the community along time, invest in motivation, expectations and involve employees, because there could be difficulty in having always volounteers.

ITALY

Question 1: What is the rationale for selecting the right area where to set-up a community vegetable garden? Which is the relation between people and places?

The right place is:

- a vacant place in the city accessible by everyone and easy to work;
- presence of water;
- the place should foster sharing among all the users;
- presence of trees.

Question 2: What eco-friendly and sustainable practices are suited to a community vegetable garden?

• outdoor training;

- use only natural additives in order to have an organic cultivation, trough compost for example;
- use recycled materials, rainwater an solar energy for pumps, lamps...;
- use traditional ways to cultivate in order to let people learn this practises;
- yoga, meditation.

Question 3: How to plan the landscape of a community vegetable garden?

- consider the needs of the community and involve them in the definition of the space together with agronomists, sociologists and local administrators;
- different areas including a flowers and plants garden and a vegetables garden.

Question 4: Are there programs/methodologies applied to the community vegetable gardens already set up?

• square foot gardening.

Question 5: How do community vegetable gardens impact the life-styles of people?

- inclusion;
- learn trough biodiversity, food and so on;
- focus on the psychological effect;
- opportunity to give a life to an abandoned place.

Question 6: What can be done with the products cultivated in a community gardens?

- divided among participants or sold in markets to have money to invest in the garden;
- used in social kitchen or to support restaurants.

Question 7: Are the vegetable gardens considering therapeutic aspects? And which ones?

• yes, relax and stress reduction.

Question 8: Strengths to consider and errors not to repeat?

- the possibilities to increase social regeneration and to create a space of care, in where people can learn to take care of themselves and plants;
- influence the public policy;
- difficulties can occur in not having continuity of volounteers.

CONCLUSION

From the analysis of the interviews proposed to the stakeholders from Portugal, France and Italy, some basic criteria that should be taken into account in the realisation of the prototype were identified:

- modularity and flexibility: all the structures must be modular and flexible to allow the carrying out of numerous activities pace can be counted and / or expanded according to needs over time the garden must adapt to any context;
- accessibility: the plant beds and the paths must have measures that can make the garden accessible to all;
- sense of belonging: name of the garden, and characterization of all the elements by shape, materials and defined color palette;
- experimentation: the garden must allow a high degree of experimentation;
- sensoriality: the space must enhance the relationship with the 5 senses through the use of different plants and materials;
- low maintenance: the garden must be sustainable and consume little water;
- repeatability and ease of construction: all structures are designed to be built without specific technical knowledge;
- the garden has to be sustainable, ecological and diverse: the theme of sustainability is related with the construction of all structures with poor and recycled materials, but also with the use of compost, solar panels and so on; ecology is related to the use of a biological cultivation (through rainwater basin, for example) and winderness; diversity is related to people inclusion and activities;
- communication inside and outside: "inside communication" is related to the dialogue among participants and to the informations sharing, while "outside communication" is related to the promotion of the spac first.



Activity 2 PROTOTYPING A CARING GARDEN



the coordination meeting in Paris

The second meeting between the partners' organizations took place in Paris from September 28th to September 30th 2022.

The programme for the first day consisted in two visits: the first one planned was the visit to the community garden "La Pepinière" (www. pepinsproduction.fr), in the 11th district, where the staff provided a guided tour, giving details on the garden, its construction, and the involvement of the local community in its maintenance.

After the visit, the whole group had its lunch break in the restaurant of the urban farm, La Recyclerie, where another guided tour was provided by the staff. La Recyclerie (www.larecyclerie.com) is an urban farm in the 18th district of Paris, it is a recovered green space, divided into three







areas: the coffee bar/restaurant, the community garden and the upper area with beehives. It is a very active place, every week the staff organizes different activities with the purpose of creating awareness on the environmental cause, and a workshop to learn how to repair objects instead of buying new ones.

On the second day the partners all gathered in the head office of the host organization, where, after the presentation of the agenda, each organization discussed the results of the interviews with the stakeholders. After a short break, the partners worked on a SWOT (Streghts, Weaknesses, Opportunities, Threats) analysis of the project, as a base of the design of the garden. After that, the partners wrote a list of criteria that should work as a basis for the construction of the garden.

On the third and final day, the partners met in the venue of the host organization again and after testing it, they prepared the structure for Youth Hackathon, a challenge each organization had to organize with a group of people, divided into 3 groups, whom were given the criteria of the garden and who had 20 minutes to design a prototype based on them.

After the definition of the next steps, the meeting was concluded and evaluated.



Activity 3 HACK THE PROTOTYPE



Youth Hackathon Report

Coming late October 2022, with the first drafts of the prototype already drawn, the design criteria set and agreed by all partners and the main structure of what would be our urban garden clear in its ultimate social, therapeutical, and educational purposes, it was time to consider new and fresh perspectives, particularly from the ones who will benefit from it the most in its future implementation.

This way, the partners have led in their community and with their main youth target groups, a hackathon activity in which every group local youth prepared a proposal for their perfect urban garden, following the criteria established by the partners and proposing their main features to be taken into account. Thus, giving ideas for us to perfect the drawing of the final prototype and better adapt it to the real needs of the local target groups.

IN FRANCE

Elan Interculturel led their Hackathon on November 3rd, gathering a team of 12 young people, and spliting them into groups of 4. Then they distributed the Hackathon Criteria and gave them 20 minutes to draw the ideal garden based on them. Their youth were quite excited and competitive. After 20 minutes they gave each team 1 minute to present their work. The winners were rewarded diverse prizes in candies, chocolate chips and beer. They conducted many games and found other good ways to motivate them.

Modularity

The space is divided into 5 areas, although there is no marked division between them, but a continuity. From the entrance there are: a big fountain with little ducks (and a panel forbidding to feed them), then right there is a space conceived for cultivation of different species of plants, just in front of it we find a space for exhibitions, along a pathway that leads to a play area for kids, surrounded by nature. On the other side we find wild nature, different species of plants preserving biodiversity and beyond it there's an apple tree.

Accessibility

In the garden we find space for different kind of needs. There are pathways between areas and also quiet spaces, that might help people with a wide range of needs (neurodivergent people, people with anxiety, etc.) and also a playground for kids, conceived for families.

Experimentation, sensorially and ease of construction

Thanks to its different material, its modular construction and its biodiversity, the garden can host a wide range of activities, and foster experimentation as well as sensorial stimulation. The garden's structure is simple, technical knowledge is not required to build it.

Low maintenance

All the materials can be (or are) recycled. Thanks to the cultivation methods, the garden does not require too much water.

Sustainable, ecological, and diverse

The garden is built using sustainable and eco-responsible material, there is a space where nature can grow wildly and spontaneously. Biodiversity is everywhere: in wild nature as well as in the space conceived for cultivation, people can come in and contact with different species of plants and insects. Diversity is also a key to understand the garden. Its pathways, its quiet areas, and the "fluid" division inside it (its continuity) make it accessible to everyone.



IN ITALY

As a partner of the project "GREEN UP! Your Community", NoGap organized a hackathon involving 15 boys and girls from the Lahuén Community of Psychotherapy and Work in Orvieto. Among the participants there are those who have suffered or suffer from social anxiety and those who have never experienced such difficulty.

It was explained to the participants, divided into three teams, that the prototype they should have designed concerns a Community Garden which should be:

- Inclusive
- Accessible
- Creative
- Useful for decreasing stress or social anxiety

To facilitate their work, stimulus words previously agreed with the other organizations involved were provided:

Modularity and flexibility

All the structures must be modular and flexible to allow the carrying out of numerous activities pace can be counted and / or expanded according to needs over time the garden must adapt to any context.

Accessibility

The plant beds and the paths must have measures that can make the garden accessible to all

Sense of belonging

Name of the garden, and characterization of all the elements by shape, materials, and defined color palette

Experimentation

The garden must allow a high degree of experimentation

Sensoriality

The space must enhance the relationship with the 5 senses through the use of different plants and materials.

Low maintenance

The garden must be sustainable and consume little water.

Repeatability and ease of construction

All structures are designed to be built without specific technical knowledge.

The garden must be sustainable, ecological, and diverse

The theme of diversity is related to people inclusion and activities. The theme of ecology is related to the use a biological cultivation (trough rainwater basin

for example) and wilderness. The theme of sustainability is related with the construction of all structures with poor and recycled materials, but also with the use of compost, solar panels and so on.

Communication inside and outside

"Inside communication" is related to the dialogue among participants and to the information sharing, while "outside communication" is related to the promotion of the space.

Considering the vulnerability of some of the subjects, we decided to leave the participants more time available, for a total time of about two hours. One of the teams had greater difficulties in the design phase of their ideal garden and it was necessary the intervention of an operator to help them. An interesting aspect was that guys and girls with social anxiety tackled the activity with greater participation and sensitivity than the others.

Once the time was up, all the teams illustrated their project and the winner team was chosen for better having reflected all the criteria in the drawing. Looking at the gate we can see different pathways with curves, because the participants imagined that curves could be useful to give the perception of privacy. On the left they have drawn an area with sand, seats and benches accessible to disabled people. On the right, instead, there is an area with some sensorial and officinal plants.



Going ahead there is the main square of the garden, with a huge and elevated fountain. Around the fountain there are many single movable seats, which guarantee privacy and, at the same time, the possibility to stay together. Around the fountain there are two different spaces:

- a sight house: it is a covered space where people can stand, look other people in the eyes for a minute to create a deep relation and write what they have experienced on the panel behind;
- a trainer space: there are many exercise bikes which people can enjoy being surrounded by nature and produce electric energy for the garden illumination.

At the end, we can see that participants have drawn a second square, which has a hand-form to represent the importance of solidarity. In this space there is the bathroom and a space where people can eat or drink together.

All around the space described, the ground is covered by biodiversity.

All participants received a prize for contributing to the prototype. The boys and girls of the Lahuén Community appreciated the objective of the project in which they took part and we will certainly try to get involved in the following phases as well.

IN PORTUGAL

In Chaves, Inspira!, lead a hackathon with their local target groups of youth, gathering 36 young people, between local rural unprivileged young people and the young international volunteers and participants of the organization projects going on at the moment.

They mixed both groups of youth, creating 6 multicultural small groups of 6. Every group created their own prototype following the guidelines set by the partners.

Before they started, they held a short creativity workshop, to trigger their capacity to develop new, fresh, fun and out-of-the-box ideas in a short group activity, also a making them more comfortable for a public presentation and explanation of their ideas and plans.

The garden has a circular path with a sequence of experiences and activities to have in the different areas of the garden. Each area has a different plan and different activities proposed for it, with different green elements and different human needs and social goals, trying to reach the most diverse number of youth with social anxiety or any other social issue.

The garden has solar lights all around, a different entry for bicycles and for



people and very diverse activities in each section of its general plan.

Each section is surrounded by trees, aromatic plants as gardening spaces, isolating it from the others. In each of those sections, users can enjoy different activities and experiences, covering also different target groups, with diverse and dynamic social, environmental and cultural offer. The sections are well described in the drawing, which was quite extensive in the description of its possibilities by the participating young people.

The winner was rewarded a typical local dish and drinks as a prize and had a chance to give more detailed ideas for the later development of the final prototype, accompanying closely the rest of the development process.

THE WINNERS... AND NOT ONLY

The three winning drawings were saved and taken into close attention for the development of the final prototype, with the landscape architects from Linaria having them in mind when drawing each aspect and element of it and following many of the youth proposals and ideas. But also all the other drawings were saved and looked upon with very close attention, with some quite interested features being used and adapted for the final prototype.



OPEN UP The caring garden



THE COORDINATION MEETING IN CHAVES

The third meeting between the partners' organizations took place in Chaves, from February 8th to February 10th 2023.

We started the first day by presenting the results already created by everyone and with Linaria displaying to the rest of the group the almost-final drafts of the prototype drawing they had created following the last meeting in Paris. The whole group gave feedbacks on it and some small notes and corrections were added to this prototype. A full discussion on its applicability, uses and green spaces was conducted and some new creative ideas were developed to perfect its implementation.

We then followed with a visit to the abandoned Botanical and Zoological Park of Rebentão, in the outskirts of Chaves, challenging the participants of the meeting into discovering, in a dynamic game, the reasons behind the bad planning and execution of this park which led to its failure and abandonment. The exercise was relevant to focus on what elements should be avoided in our plans in the drawing of our garden and its set of guidelines.

Later we dedicated the whole afternoon, as well as the whole next morning in the drawing of these guidelines, with every partner organization representatives working in a different set of aspects and receiving constant input and feedback by the other partners. For it, we divided the prototype in different section and the guidelines were oriented for the specificities of each one.

In the afternoon of the second day, we visited Inspiral's adopted forest, in which an educational space will be set for most of their future environmental education actions. We had an educational walk, with an explanation of the ecology and natural history of that place and finalized with a tree plantation ceremony, in which each member of the meeting baptized an oak tree and planted it in the forest.



Later on that day we had our final and formal presentation of the project, in which the we invited local stakeholders, representatives of other institutions from Chaves, young people and the local and regional media.

We presented the project, its aims, processes and results, as well as our community vision, showing the final updated prototype and promoting a feedback discussion with the audience. The representative of the National Youth Institute (IPDJ) appreciated it very positively and recommended our personal presentation as a proposal for the local mayor. We concluded with a direct interview for A Voz de Trás-os-Montes newspaper, who wrote a two pages article on our work.

The last day was for conclusions, to add the new aspects and feedbacks given by the audience to our guidelines, write the last sentences and plan the future actions after this meeting. We finished with an evaluation exercise who helped us reflect on the outcomes of the meeting and on the future success of the project results.

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GUIDELINES

INTRODUCTION



The main goal of Green Up Your Community Garden is to be an inclusive space focused on physical and mental wellbeing for people who suffer from social anxiety and people who don't.

Occasional anxiety is a normal part of life and many people worry about things such as health, money, or family problems. Anxiety disorders, instead, involve more than temporary worry or fear. Social anxiety disorder is an intense, persistent fear of being watched and judged by others. For people with social anxiety disorder, the fear of social situations can be so intense that they experience a loss of control.

Nature has been used for centuries in the healing process, but in recent decades nature-based therapies as a multidimensional approach for building out effective care programmes to increase psychosocial health has been supported by evidence. In the 19th century, Dr. Benjamin Rush, a signer of the Declaration of Independence and recognized as the "Father of American Psychiatry," was the first to document the positive effect working in the garden had on individuals with mental illness.

Two dominant theories considered helpful in understanding the impact of gardening on mental health are attention restoration theory (Kaplan and Kaplan, 1989; Kaplan, 1995) and psycho-physiological stress reduction theory (Ulrich, 1983). Both are psycho-evolutionary theories, based on the biophilia hypothesis – the idea that humans have an innate need to affiliate with the natural environment within which they have evolved (Wilson, 1984). There is considerable evidence that people have a preference for and a predisposition to respond to natural stimuli (see Gullone, 2000, for a review). Furthermore, a Coss' theory (1991) claims that the health effects are due to a restorative influence on emotional centers in the brain limbic system, caused by the environment – above all by nature-like surroundings and wild nature. The theory regards human beings as biological individuals, suited for a life close to nature. However, in recent history people have become increasingly removed from the natural environment.

In the following list are some suggestions to achieve the goals:

1. ACCESSIBILITY AND ADAPTABILITY

The garden should be easily accessible to all users, regardless of their physical ability. This may involve the use of wide, flat paths and the inclusion of features such as ramps and handrails. One of the key characteristics of a therapeutic garden is accessibility. This refers to the ease with which all users, regardless of physical ability, can access and use the garden. This is important because therapeutic gardens are often used by people who may have mobility issues, such as those who are confined to a hospital or nursing home, or disabled people. To ensure accessibility, a therapeutic garden should include wide, flat paths that are easy to navigate. These paths should be made of a nonslip surface, such as paving stones or gravel, and should be free of tripping hazards. In addition, the garden should include features such as ramps and handrails to assist those who may have difficulty with stairs. It is also important to consider the needs of people with visual impairments. This may involve the use of contrasting colors and textures to help guide users around the garden, as well as the inclusion of braille signage and other tactile elements. Overall, accessibility is an important factor in the design of a therapeutic garden, as it helps to ensure that all users can safely and easily access and enjoy the space. The garden should be adaptable to the needs and preferences of its users. This

The garden should be adaptable to the needs and preferences of its users. This may involve the inclusion of features such as raised garden beds, which can be easier for people with mobility issues to access.

2. SUSTAINABILITY

The garden should be designed and maintained in a way that is environmentally sustainable.

Sustainability is an important characteristic of a community garden, as it ensures that the garden can be enjoyed for years to come. A sustainable garden is one that is designed and maintained in a way that is environmentally responsible and sustainable. One way to make a garden sustainable is to use native plants. Native plants that can be found in the region and are adapted to the local climate and soil conditions. These plants are generally easier to care for and require less maintenance, as they are well-suited to their environment. In addition, native plants can provide habitat for local wildlife and help to preserve biodiversity. Another way is to use water-efficient irrigation systems, such as drip irrigation or soaker hoses. These systems can help in saving water, which is an important resource, especially in areas with water shortages. Finally, it can be useful incorporating composting systems, which can help reduce waste and improve soil health. Composting systems can be as simple as a compost bin or as complex as a worm farm, depending on the needs and resources of the garden.

3. VARIETY OF SPACES

By providing a variety of spaces, the visitor is given choices, thus providing an increased sense of control-leading to lower stress levels. The garden should have: an area for solitary activities that provides a quiet place to people and areas for small groups and to lead activities to gather and provide social interactions.

The garden should be a safe and comfortable place for people to spend time in. This may involve the use of low-maintenance plants and materials, as well as the inclusion of features such as seating and shade structures.

Comfort and safety are important characteristics of a community garden. It should be a place where people feel safe and comfortable spending time, in order to fully benefit from the calming and healing effects of nature. To ensure comfort, the garden should include features such as seating and shade structures. These can provide a place for people to rest and relax, and can help to protect against the sun or inclement weather.

Safety is also an important consideration: the space should be free of tripping hazards and other potential dangers, such as sharp objects or toxic plants.

4. GREEN MATERIAL

A therapeutic garden should include a variety of plants and features to provide visual interest and stimulate the 5 senses. This may include a mix of annuals and perennials, as well as fwater features, sculptures, and seating areas. Annuals, which typically have a shorter lifespan, can add bursts of color to the garden, while perennials, which return year after year, can provide a sense of continuity.

Flowers, plants and trees allow people to be more connected with nature and to decrease stress levels. They can activate all the senses: sight, hearing, smell, and taste, but also the temperature sense, the muscular sense, and the sense of touch are activated when, for instance, one puts one's hand on a stone warmed by the sun.

In addition to plants, a therapeutic garden can also include other features such as water spaces, sculptures, and seating areas. Water features, such as fountains or small pools, can provide a soothing sound and visual element to the garden. Sculptures and other decorative elements can add interest and provide a sense of whimsy. Seating areas can provide a comfortable place for people to sit and relax in the garden.

5. ENCOURAGE EXERCISE

Sensorial pathways are important to encourage walking as a form of exercise which has been proved to be correlated with lower levels of depression.

6. MINIMIZE INTRUSIONS

Negative factors such as urban noise, smoke, and artificial lighting should be minimized in the garden. Natural lighting and sounds are additive to the positive effects of the garden.

7. MINIMIZE AMBIGUITY

Abstract environments (i.e., those with a high sense of mystery or complexity) can be interesting and challenging, but to some people they may have counterindicated effects. Numerous studies show that abstraction in design is not well tolerated by persons who are ill or stressed.

It would be better if the ground is level; a slight slope will be sufficient for water drainage. Steps and ramps can be provided if there are differences in height.

8. FACILITATING ORIENTATION WITHIN THE GARDEN

The garden space, regardless of size and context, should have a simple and understandable organization to facilitate orientation while providing the acquisition of an orderly mental image of the arrangement of planned elements and their relationships. Changes in textures (paving, plants, and other furnishing materials for example) are always a cause for interest, defining for example, a place of interest or rest, may draw attention to a different activity area from the previous one, from the presence of a service or information point. When located in particular spots, plants, especially trees, serve as good landmarks, as do scented plants or the sound of a few bells hanging from a branch along the path. All together these elements can help one's perception of one's location and organization of space.





1. THE GARDEN ENTRANCE

The entrance to the community garden should be welcoming to all members of the community. Consider adding flowers, plants, or other decorative elements to create a welcoming atmosphere. Providing a welcoming atmosphere it is very important, but here are some other guidelines for the entrance of the community garden.

1.1 INCLUSION AND GREEN SKILLS

The entrance represents the public's first contact with the park. It is crucial that the first feeling it should convey is the feeling of being in control, the visitors should be able to choose where to go according to their needs. It should be large enough and easily accessible for all members of the community, regardless of their physical abilities. Ensure that there are no physical barriers that would prevent someone from entering the garden, such as stairs, steep inclines, or narrow gates.

ARCHITECTURAL DESIGN

Fountain

Where possible, it would be good to also have a fountain that can be sized according to the available space and have a shape that is easy to construct, such as square or hexagonal, as opposed to round shapes. The edge of the fountain can be a seat (minimum h 40 cm, seat width 30 to 45 cm). To prevent mosquitoes, it is important to create a more attractive spot with a small natural aquatic ecosystem with aquatic plants (water lilies, water irises...).

Clearly mark the entrance

Make sure the entrance to the community garden is clearly marked so that people can easily find it. Use signs or markers to indicate the entrance, and

ensure that it is visible from the street or other main access points. Ideally, it should be located near public transportation and/or a major intersection to make it easy for people to find. Consider placing signs or banners at the entrance to help guide people.

Create a meeting point

The entrance to the garden can also serve as a meeting point for members of the community who are interested in participating in the garden. Consider installing benches or tables where people can sit and chat. As with the furniture throughout the community garden, the seats can be modular, wooden, so they must be able to move according to different needs. They must have different heights and sizes: from a minimum of cm 30 to a maximum of cm 50, single or double.

Communication and clear signage

The entrance should serve as a hub for communication between members of the community garden and visitors.

Make sure that the entrance and meeting point are clearly marked with signage that indicates:

- the name of the community garden;
- rules and regulations;
- information on caution to have inside (e.g allergies, insects, types of plants);
- the plan showing the location of the paths, the services and the points of interest and the different areas marked with different symbols and colors that should be repeated in the panels inside the garden;
- events list, monthly agenda, promotion of future activities, flyers and flipcharts for the events, etc;
- a list of organizations taking care of mental health will be available on a platform next to the map.

The messages, directions and explanations should be short and concise, written in large letters and contrasting colors, possibly even embossed. It is good to accompany written directions with simple symbology that facilitates the different locations and activities related to the various areas and functions.

As well as throughout the garden, the panels should be placed so that they do not constitute an obstacle. It is suggested that they be tilted 60° and placed at

a height of about 80 cm. Vertically placed signs should be placed between cm 100 and 150 from the ground to be readable by all. Reflective surfaces should be avoided, as should direct exposure to the sun because they make reading difficult.

Ensure safety

The entrance should be designed taking into account safety. Make sure there is adequate lighting so that people can enter and exit the garden safely at any time of day, and ensure that there are no hazards or obstacles that could pose a danger to gardeners or visitors.

Green Material

Consider adding flowers, plants, or other decorative elements to create an inviting atmosphere . In excessively sunny locations, it is good to include some deciduous trees that can provide shade during the hottest hours.



2. THE SOCIAL AREA

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In a Community Garden it is important to have a social area, where people can interact and improve their social skills. There should be many activities oriented to this goal, such as art therapy, meditation, and yoga classes.

TOOL BOX

plans

4.1 MENTAL HEALTH – ART THERAPY

When practiced consistently and methodically, Art Therapy allows people to enjoy some truly extraordinary benefits for their well-being. The most common ones are:

- Pain reduction;
- Fighting anxiety and tension;
- Creativity development;
- Increased self-esteem;
- Increased self-confidence and openness to others;
- Stimulation of the part of the brain related to motor activity;
- Serenity and relief to people with several illnesses.

Some psychologists believe that coloring has the same power and effects as meditation. In fact, when a person is concentrated in the activity of coloring, the stress level is lowered and the amygdala, a key component of the brain involved in controlling emotions and disturbed by stress, decreases its activity. The mind calms down and while we are relaxed, we have a chance to get in touch with our most authentic Self.

There are countless ways to collaborate with nature directly and indirectly. Here are some examples to get the inspiration flowing:

- Collect smooth rocks and pebbles and create an outdoor stone mandala either individually or as a group process;
- Paint or draw on stones and leave them in different outdoor or indoor locations. Imagine the delight that these found stones might bring someone else as they are going about their busy day;
- Trace leaves or found pieces from nature to create an overlapping abstract drawing. Use black and bold lines to trace and then fill in each section with paint to create a stained-glass inspired piece;
- Sit outside on a windy day with watercolor and paper and let the hand capture the sensation given by the wind and let the water sound (if there is a water element) guide your own mark making;
- Create small (or large) sculptures to place throughout the garden. You can also place small pictures and drawings and other small found objects around the garden and create an ever-changing scene;
- Trace shadows from overhanging tree branches and plants by sitting directly under a tree on a bright day. The shadows create beautiful, intricate, and abstract patterns.

4.2 INCLUSION AND GREEN SKILLS

In the Social Area, individuals will be able to meet in order to develop their social skills, but also to carry out activities in groups or alone. In the first place, all the elements must be available and usable by all, by their size on one hand and their accessibility on the other: this includes the toilets, the size of the tables, the height at which the tools or other objects are located, etc.

The social corner could be composed of a library, in which there should be various books, in several languages, including Braille, but also audio books for non-literate people, children or blind people. Concerning the toolbox, which is accessible to all, the tools should be easy to use and not require too much technical skills. However, each tool should be provided with a brief, clear and easily understandable explanation, which should also respect the criteria concerning the informative material developed in the introduction. The educational purpose is part of this area and people can also find many panels with explanations about composting bins, water management and illumination.

Composting bin and instructions

- Gather your waste: Collect your kitchen scraps, such as fruit and vegetable peels, coffee grounds, and eggshells, along with yard waste like leaves, grass clippings, and branches.
- Build your compost pile: Put your waste into a compost bin or pile and mix it together with some soil and water.
- Add air: Turn the compost pile regularly with a pitchfork or compost aerator to make sure it has enough air. This helps the tiny creatures, like worms and bacteria, that are breaking down the waste to do their job.
- Wait: In a few months, your compost will be ready! You'll know it's ready when it looks like dark, crumbly soil and has a rich, earthy smell.
- Use it: Spread your compost around your plants or mix it into the soil in your garden. Your plants will love the extra nutrients, and your garden will be healthier and happier.

Water management, rainwater collection

From a roof using the gutter to direct the water into a reservoir then where water can be saved and later used for the plants in the vegetable garden. It's a simple system that can provide sustainability and self-sufficiency for the park management. A watering system connected to the reservoir must be implemented before the plantations and be able to cover all the relevant green areas of the park.

Illumination

The illumination should be preferably natural. Preventing illumination pollution is a relevant aspect in the design, preventing the social and cultural areas where more light will be implemented from contaminating the relaxing, darker areas where people will be doing different activities in nature, reading a book, or enjoying some calm activities to deal with social anxiety issues. In the social area, where there are tables and benches and storing facilities, use directional light, like focal lamps. Instead of just lighting poles or simple lights that can cause some light pollution, dispersing the light in all directions, mainly up to the sky.

A solar panel (if there is enough budget) would be the best system to provide the energy for these lamps and illumination devices. In terms of sustainability, as the place maybe doesn't have a big energy consumption it's a good idea to think of only using electricity from solar panels as a way to achieve some independence.

4.3 ARCHITECTURAL DESIGN

The features of an area dedicated to social events, performances, and workshops in a community garden can vary based on the specific needs and preferences of the community. However, here are some potential features that could be considered:

Communication

In this area should be placed one or more panels with the calendar of activities, posters of events, and workshops that will be hosted during the week or month.

Shelter

Some type of shelter or cover, such as a gazebo, pergola, or covered stage, may be necessary to protect performers and attendees from the elements, such as rain or intense sun. Construction of a pergola that can be partially closed as needed is recommended.

Storage

A storage area could be helpful for storing equipment, such as chairs, tables, or sound equipment, gardening tools, materials from workshops and various activities. Shelving can also be added where books and seeds can be placed to activate exchanges among visitors.

A stage or performance area

Depending on the type of events or performances that will be hosted in the space, a dedicated stage or performance area may be necessary. This could include a raised platform, a designated space for microphones and speakers, or other equipment necessary for performances. For events, shows and concerts, the construction of a platform is proposed, which will be placed in a sheltered position so as to avoid disturbing other garden activities. As for the dimensions, these will be defined according to the available space, but with a minimum size of m 2x4, and raised at least cm 20.

Seating

The space should include enough seating to accommodate the number of people who are likely to attend events and workshops. This could include benches, chairs, or other seating options, functional for the different activities proposed by the garden. Every element can be modular, and moveable, built with wood thanks to workshops and laboratories that involve the garden community already at the moment of its creation. The seats should be different in height and size: from a minimum of cm 30 to a maximum of cm 50, single or double. Tables should be height cm 70 to 80 and with a minimum size of cm 80x80.

Paving

It is good for the social area to have homogeneous paving, designed with natural materials already used in the construction of other garden areas and paths, to give design continuity. The walking surface should be smooth, hard and non-slippery, and it is possible to choose from various materials such as:

- gravel, clay: always long-lasting and certainly more in harmony with the context, although they are more complex to maintain and can make paths more difficult to walk on. In addition, if the overlay is too thin, it will be easily eroded by water.
- cobblestones, flagstones, wooden discs: aesthetically very suitable for the context, they have an uneven surface with joints that may make it difficult to walk without tripping. Joints should be no more than an inch wide and at a graded level so as not to trap heels, wheels, sticks.
- dirt, grass: like all regular soft surfaces, they are rarely easy to manage and use, especially with heavy passing and wet weather. With good drainage

and light foot traffic, they can be used by reinforcing them with special wire mesh, which should then be covered with a layer of seeded soil.

• wood: paving with wooden planks requires good annual maintenance and ventilation to prevent the growth of mosses, which with moisture would make the surface very slippery. It is necessary to leave a gap between the boards of about an inch, and these should be laid crosswise to the direction of travel.

Toilet

Adjacent to the storage room, a gender neutral and wheelchair-accessible toilet can also be placed.

Lighting

Appropriate lighting can make the space usable at night and create a welcoming environment for events and performances. This could include string lights, solar-powered lights, or other types of lighting.

Power supply

Depending on the types of events or workshops, access to electrical outlets or a power supply may be necessary to run sound equipment, projectors, or other electronics.

Water supply

A water supply, such as a hose or irrigation system, can be helpful for keeping plants and trees healthy, and for washing down the space after events.

Accessibility

The space should be accessible to all members of the community, including physically disabled people. This could include paved walkways, wheelchair-accessible seating, and other accommodations.

Greenery

As a community garden, the space should also feature plants and greenery, which can create a pleasant atmosphere and support the garden's overall mission. This could include flowers, trees, or other plants that are well-suited to the local climate.





The Vegetable Garden is one of the fundamental elements of the therapeutic garden. Designed for both educational and productive purposes, it is essential for learning about the great diversity of horticultural and aromatic plants.
2.1. MENTAL HEALTH- HORTICULTURAL THERAPY

Horticultural therapy is gaining attention as a form of rehabilitation in medical and mental health fields. It is now incorporated into their campuses to be used by both people who suffer from social anxiety and visitors for therapeutic benefits. Many people benefit from gardening experiences in therapy by learning skills, adaptations, and gardening methods that allow for continued participation in gardening at home (American Horticultural Therapy Association, 2011). Some studies indicate that adults feel rewarded during gardening activities and may go through "flow experiences" with feelings of well-being, total commitment, and forgetfulness of time. The process itself is considered the therapeutic activity rather than the final product.

This method develops:

- Sense of social usefulness and self-esteem: plants respond to care and/ or neglect and still reward with the production of new leaves, flowers and fruit;
- The possibility of being able to achieve something useful for the community (the care of greenery, vegetables and/or flowers) and helps foster the development of a sense of social responsibility which, in turn, induces the reinforcement of self-esteem;
- Activation of affective skills: starting with the stimulation of perceptual skills (contact with the earth, observation of shapes and colors, manipulation of greenery etc...transmit relaxing proprioceptive sensations) and the development of the pleasure of taking care of a plant, of seeing it bloom and bear fruit;
- Ability in knowing how to wait: waiting for the growth of greenery, plants and the acquisition of derivatives contributes greatly to making one to feel part of a creative process of which one learns to respect its times and modes;
- Learning the flow of time: continuous and direct contact with biological organisms marked by rules that cannot be changed according to one's own expectations, allows one to perceive the flow of time and seasons as dictated by the rhythms of nature;
- Decision-making processes and emotional containment: in the implementation of the guided or autonomous operation to be carried out in the horticultural activity, there are occasions when decisions must be made;

- Social interaction: participation in an activity that presupposes many moments and many working phases in common with other people, initiates an experience based on patient operativeness linked to a common goal;
- Contact with nature, and more specifically the manipulation of the soil and other natural elements, can also help "in rooting" oneself in the moment and in the external reality. Grounding techniques are indeed a good way to calm and release intrusive thoughts.

Furthermore, the horticultural therapy:

- Meets the needs for exploration of difference; people can thus satisfy their desires to know and experience open spaces and to move around while respecting fairly free lifestyles;
- Allows people to respect the rules, such as those imposed on them by nature, that are not too rigid;
- Satisfies the needs to achieve and realize oneself in some productivity through obtaining derivatives;
- Leads to the acquisition of specific skills that people can, after time, eventually use in an appropriately structured work environment.

2.2 INCLUSION AND GREEN SKILLS

Cultivation is very important in this area; because it allows people to do pleasant activities alone, with other people and, very important, alone next to other people. It might represent a good solution for people who are trying to gradually overcome social anxiety as it creates a context in which people can choose to interact. Information material is available in this area, a good suggestion might be involving people in the community in its creation, in a perspective of peer education and knowledge building, as well as to involve them in the preparation of events with educational purposes, which might represent a good situation to share intercultural knowledge on plants, flowers, fruit and their properties.

Permaculture

About the different cultivation techniques people can learn more about permaculture. It is based on the principles of ecology, sustainability, and self-sufficiency, and seeks to mimic the patterns and relationships found in nature.

Permaculture involves using techniques such as:

- Crop rotation Crop rotation is a method of planting different crops in a specific order in the same location over a number of years. This practice helps to improve soil health, reduce pest and disease pressure and helps to maximize the space.
- Companion planting Companion planting is a technique where different types of plants are grown together in a way that benefits both the plants and the garden as a whole. For example, planting tall plants like corn or beans next to shorter ones like lettuce or carrots can provide shade for the smaller plants and support for the taller ones. Companion planting can help to reduce the amount of space needed for a vegetable garden, improve soil health, attract beneficial insects, and deter pests.
- Composting and water management Create a closed-loop system where waste is turned into resources, and natural systems are used to produce food and other resources (more information about compost in the social area).

The focus is on creating a resilient, low-maintenance, and sustainable system that works in harmony with nature. All these steps can be integrated in educational programs with schools and/or target groups to plant the vegetables, do the harvesting, weeding, cleaning, etc.

Checklist for cultivation steps, processes and criteria

Here is a checklist to be used by participants who approach the vegetable garden:

- Choose the right location: Consider factors such as sun exposure, climate, soil type, and water access.
- Select seeds or seedlings: Choose seeds or seedlings that are suitable for your area and the time of year. Prioritize native species.
- Make sure you have all the tools needed for the culture.
- Prepare the soil: Make sure the soil is loose, fertile, and free of weeds. Consider adding compost or other organic matter to improve soil health.
- Plan your garden layout: Decide where to plant each type of vegetable, taking into account their growth habit, sunlight requirements, and water needs.

- Consider different cultivation techniques in order to maximize the use of the space.
- Plant your seeds or seedlings: Follow the instructions on the seed packet or from your local nursery.
- Water regularly: Make sure to water your plants regularly, providing enough water for their needs.
- Monitor for pests and diseases: Keep an eye out for any signs of pests or diseases, and take action as needed.

2.3 ARCHITECTURAL DESIGN

Design

The design of the vegetable garden should be attractive and inviting. Decorative elements such as fountains or pathways can be used to create a relaxing and pleasant environment. Regarding the arrangement of vegetable plots, an orderly arrangement is recommended, with different heights and sizes so that they are accessible to all. To facilitate cultivation at a height that is comfortable even when seated or for people in wheelchairs, the growing surface can have a height of 70-80 cm. If cultivated at ground level, a 7-10 cm high curb should separate them from the walking area in order to contain the soil. The distances between the vegetable plots should allow comfortable passage for a person in a wheelchair. In this area, it is also necessary to set up some tables and worktops to give place to various activities and workshops related to the cultivation, care and use of cultivated plants, such as transplanting, propagation, transplanting, etc..

Accessibility

The vegetable garden should be easily accessible to all, including those who use a wheelchair or have mobility problems; it should be flat and free of obstacles, so benches and fences should vary in height and shape.

Size

The vegetable garden should be of an appropriate size for the needs of the community or group that will use it; generally, an area minimum of 4-6 square meters may be sufficient for a small therapeutic vegetable garden.

Layout

The vegetable garden should be arranged so that it receives sufficient sun and it is easily accessible from the entrance and the other garden's areas.

Fence, and support structures

It is a good idea for the vegetable garden area to have a well-defined, tidy and demarcated area. The fence can be a simple wooden ground curb and some of its elements can have different heights and be utilized as espaliers for small fruit trees or fruit climbers. The vegetable garden should also include support structures such as stakes or fencing for climbing plants. In addition, supports can be used for taller plants or to protect crops from damage.

Plant selection

Plants selected should be appropriate for the climate and season, and should be chosen according to people preferences. To emphasize the botanical and cultural significance of this part of the garden, it is advisable to include, for example, some ancient varieties that can represent different cultures, landscapes, and uses. It would be good for most of the plants to be provided with identification tags that should show the Latin and the vernacular name in different languages, as well as the main characteristics and properties with a brief description of the main cultivation care.

Gardening tools

The garden should be equipped with the necessary tools for plant care, such as hoes, rakes, and watering cans. Patients and visitors may be involved in caring for the vegetable garden, so the tools should be safe and easy to handle.

Irrigation

The vegetable garden should be equipped with an irrigation system to ensure that plants get the water they need.

Safety

The vegetable garden should should not present any safety risk. Plant care chemicals should be avoided. The garden should be organic and include, from its creation, a special attention to sustainability criteria, artifact design, agronomic choices, seasonality, good recycling practices, and biodiversity.



4. THE SENSORY GARDEN

The Sensory Garden is designed to serve therapeutic, educational, recreational, and ecological purposes. It is a "garden of the five senses" with a multi-sensory approach to the environment and nature offers a richer and more complete experience, proving that they are of great appeal to all.

3.1 MENTAL HEALTH - POSITIVE EFFECTS

Evidence has been progressively building to support the use of horticultural therapy with people who are struggling with a variety of illnesses, including depression, stress, and anxiety (Rappe & Kivela, 2005).

Stimulating environments with plants selected for fragrance, texture and color, and using accessible greenhouses that the garden provide allow people to transfer therapy techniques to their home gardens, and allow for continued enjoyment and participation in gardening.

3.2 INCLUSION AND GREEN SKILLS

Along the sensorial path visitors will find information material on biodiversity, available in different languages as well as in braille and with a QRcode leading to further translations and audio tracks. A very important feature of this area is its recreational dimension, visitors (children as well as adults) can enjoy the sensorial path through adapted playground areas.

The sensory garden should include paths made of different materials, such as rocks, sand, grass, gravel, leaves and any other element capable of providing smooth, calm and pleasant sensations while walking. Consider implementing sustainable practices, such as rainwater harvesting, and organic gardening. Choose species that blooms and scents are spread throughout the year, especially taking into account the seasons of greatest frequency.

The species chosen should have aromatic foliage and fragrant flowers, leaves, fruits and bark of particular interest both chromatically and tactile. It is good if most of the plants used have identification tags with the Latin name, the vernacular name in different languages. In addition, properties and a brief description can be included along with the main cultural care.

This space can also be used as a space of education, by using sensory and experience paths and acting as a classroom (outdoor classroom).

Some contents of educational activities are: nature patterns, pollination, symbiosis, bug identification, coevolution (relationship between plants and their pollinizer), tree identification, mycology classes, or any other relaxing games to touch and discover elements. As the garden can be used for educational activities and sensory experiences, in the case of people taking the shoes, it can be useful to have a small storing cabinet or shelf.

3.3 ARCHITECTURAL DESIGN

Create educational opportunities

The garden should be designed as an educational resource for the community. Incorporate interpretive signage, guided tours, and educational programs help visitors learn about plants, animals, and ecosystems that the garden supports.

Ensure accessibility

The garden should be designed to be accessible to people of all abilities, including those who use wheelchairs or have other mobility issues. Use design principles to create paths, features, and facilities that are accessible to people with reduced mobility, vision or hearing impairments, and other disabilities. Paths must be a minimum width of cm120 and must be interrupted by wider areas and rest stops. Paths and trails can have a maximum gradient of 5 percent, but if the available terrain is hilly and consequently it is not possible to have level paths, unevenness can be overcome by flanking stairs and drops with some ramps. It is important to leave the path free of overhead obstacles, such as branches and signs for at least 2 meters high.

The walking surface should be smooth, hard, and non-slippery, and you can choose from various materials such as:

- Stone flagstones: aesthetically very appropriate for the context, joints should be no more than an inch wide and at a graded level so as not to trap heels, wheels, sticks.
- Rammed earth: like all natural surfaces requires more maintenance and care solvable/simple with good drainage and light foot traffic.
- Wooden decking: wood plank decking requires good annual maintenance and ventilation to prevent the growth of mosses that with moisture would make the surface very slippery. It is necessary to leave a gap between the boards of about one centimeter and these should be laid crosswise to the direction of travel.

Stopping points

Along the trails, at lookout points, shady areas, it is necessary to provide stopping and relaxing points that can allow people to sit alone or in company to rest, observe the nature around, read, work, etc.

Incorporate therapeutic elements

Use plants, features, and elements that are specifically designed to promote relaxation, stress reduction, and can enhance mental and physical recovery. Here some sensory mapping suggestions:

- **Touch:** The different textures of particular barks of trees and shrubs, leaves and berries are uncovered by touch. Also the path surfaces, in addition to aiding orientation, rhythm, and walking, can offer a variety of sensations: think, for example, of the different ways a person might feel when going from a paved, cobblestone, or gravel walking surface to one of beaten earth or grass. with dry leaves and pine needles.
- **Hearing:** The materials of the walking surface offer not only different tactile sensations, but also different resonances. Trees can then be distinguished by the different rustling of their foliage (as the gentle leaves of a quaking aspen or willow tree, the larger leaves of an oak tree, or the sturdier leaves of a magnolia). Other suggestions for hearing may be, in addition to birdsong, which can be attracted by bird feeding and arranging trees or shrubs that are particularly desirable for their fruit or the shelter of their foliage, even the gurgling of a pond or a small fountain.
- **Smell:** In addition to the scent of flowers, the smells of nature are also important: damp earth, mown grass, standing water, resin, moss, etc. As for scents, it is important to choose the best plants, by quality and intensity of their fragrance and arrange them in the spots where they will be most appreciated, for example in a staging area. Calibrate the choice of plants so that throughout the course of the year there are blooms, alternate evergreens with deciduous plants, and do not juxtapose scents of plants with flowering at the same time, thus risking canceling out or confusing their fragrances.
- **Taste:** Additional attractions of these gardens to be "experienced" with the five senses can be small sections of plants with edible leaves, flowers, berries and fruits.
- **View:** Shapes and combinations of tones and colors.

Establish maintenance plan

Develop a comprehensive maintenance plan that includes regular watering, fertilization, pruning, weeding, and pest management. Consider writing a volunteer program to engage community members in the ongoing maintenance of the garden.

Build an ecosystem

In addition to serving therapeutic and educational purposes, the garden should be designed to support a healthy ecosystem using native plants and other elements that support local wildlife and pollinators. To complete the natural ecosystem, it is necessary to place some bees and bugs hotels, as well as some bird feeders and watering troughs, in the quieter areas away from the paths.

Create a pond

Where possible, a small natural pond is recommended providing a habitat for aquatic plants and animals and creating a peaceful and naturalistic environment. A natural pond is a type of water feature that is designed to complete a natural ecosystem with the aim to create a balanced environment that can support a variety of aquatic plants and animals. Aquatic plants play an important role in a natural pond ecosystem, providing food, shelter, and oxygen for aquatic life. They also help to absorb excess nutrients and filter the water. Common aquatic plants for natural ponds include water lilies, water hyacinths, cattails, and lotus. A natural pond may include fish, such as koi or goldfish, which can help to control algae and insect populations. However, too many fishes can create an imbalance in the ecosystem and contribute to poor water quality. Rocks and boulders provide shelter for aquatic life and create a natural-looking environment. They can also help to slow the flow of water and prevent erosion. Little streams can be incorporated into a natural pond design to add movement and sound to the landscape. They also help to oxygenate the water and create habitats for aquatic animals.

Playground for children

The area can include features that children can interact with, such as a butterfly garden, a vegetable patch, or a sand pit. Encouraging children to engage with the natural world and to participate in gardening activities, such as planting, watering, and harvesting, can help foster a sense of wonder, creativity, and connection to the environment.

Safety

When planning the garden, safety should be a top priority. Ensure that the design of all features, such as pathways and water features, can guarantee safety. Avoid using any plants that are toxic or harmful to humans or pets.

5. THE WILDERNESS AREA

This area consists of a rustic lawn where people can run or lie down.

It should be free of obstacles, spacious, and allow people to enjoy the space in total freedom, just with few deciduous trees for shade in summer, but allowing sunshine in winter months.

5.1 MENTAL HEALTH – MORNING MEDITATION

The activity aims to understand the temporary nature of all phenomena thus developing equanimity and promoting resilience. Frequent practice enables participants to change the way they react to everyday challenges and it is useful to improve the ability to focus and reduce stress.

This practice is based on the Anapana/Vipassana meditation of the Theravada Buddhist tradition. A totally secular practice which represents the roots of today's very well known mindfulness.

Instructions:

STEP 1: Participants sit in a comfortable position and remain silent while they take their seats and a bell rings to signal the start of the session.

STEP 2: With eyes closed participants focus on the natural flow of their breath. Moving should be avoided, in case there is a strong need to ease discomfort movements should be done slowly and mindfully.

STEP 3: Participants are instructed to observe without reacting, keep the focus on the breath and avoid any distraction.

STEP 4: Participants are encouraged to observe how the quality of the breath constantly shift, and to realize the connection of the breath with bodily sensations, emotions and thoughts, noise/smell from the environment.

STEP 5: When the session is over the instructor rings a bell to notify the participants that is time to calmly open their eyes.

STEP 6: Discussion concerning the philosophy behind the practice (tools that can be used: videos, discussions, sharing circle...)

The duration is about 15 minutes for the meditation and about 15 minutes for discussion.

5.2 INCLUSION AND GREEN SKILLS

This area of the garden will be the place where group activities such as yoga or meditation can be held. We recommend that you plan activities adapted to children on one hand, but also to individuals with reduced mobility so that everyone can benefit from them.

For individuals suffering from social anxiety, it is important that the activities take place in a small group so that they can gradually confront the presence of others and the interaction with others.

Also, in this area there will be many plants, trees and biodiversity. We therefore recommend that information panels be made available about the natural elements present. This information material should once again respect the inclusion criteria developed in the introduction.

- Choose the right location: Select a location that has adequate sunlight, good soil, and access to water.
- Determine the species: Choose the plant and tree species that are best suited to the climate and soil conditions of the site. Consider factors such as the soil type, rainfall, and temperature.
- Prepare the soil: Prepare the soil for planting by loosening the soil and adding compost or other organic matter.
- Obtain seedlings or seeds: Obtain seedlings or seeds from a reputable source, and store them properly until planting.
- Plan the layout: Decide on the spacing and layout of the trees, taking into account their mature size and the desired forest structure.
- Plant the trees: Plant the trees at the correct depth, making sure the root ball is covered with soil and the tree is securely staked if necessary.
- Water and care for the trees: Water the trees regularly and mulch around the base to retain moisture and suppress weeds.
- Monitor and maintain the forest: Regularly monitor the growth and health of the trees, and remove any competing vegetation or damaged trees as necessary.

GreenBelt

Around the perimeter of the garden is important to plant a "belt" consisting of plants and trees, mostly if the garden is located in the middle of an urban area. The main purpose of this is to create a delimitation of the garden. Trees can give a sense of privacy but also help protect the garden from extreme weather conditions, help protect the biodiversity of our garden and also isolate the garden from the urban noise. To enhance biodiversity in this area, it's crucial to create an environment that resembles nature as much as possible. When selecting trees and plants, it's important to consider which species can provide food and shelter to a variety of insects, birds, and small mammals, inviting them to make our garden their home.

5.3 ARCHITECTURAL DESIGN

Native or drought-tolerant grass species

Selecting grass species that are native to the area or that are drought-tolerant can reduce the amount of water needed to maintain the lawn. These species can also be more resistant to pests and diseases, avoiding the need for chemical treatments.

Sparse vegetation

A rustic lawn may have a more natural, meadow-like appearance, with tall grasses and sparse vegetation. This can reduce the need for mowing and watering, and also support local wildlife such as pollinators and small mammals.

Low-growing plants

Using plants that grow low to the ground, such as clover or thyme, can reduce the amount of water needed to maintain the lawn, as well as reducing the frequency of mowing.

Minimal fertilization

Fertilizers can promote lush growth, which requires more water and maintenance. A low-maintenance lawn may require only occasional fertilization, if at all.

Limited irrigation

To reduce water use, irrigation can be limited to the minimum necessary for plant survival, or eliminated entirely in favor of rainwater harvesting or other sustainable water sources.

Limited maintenance

A rustic, low-maintenance lawn may be left to grow longer between mowings, reducing the amount of water needed for upkeep. It may also require minimal plantation, aerating, or other maintenance tasks.

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THE PROJECT PARTINERS

NOGAP

elan interculturel

NoGap was born in January 2020 and it is a not-for-profit association established in Orvieto, Italy, in the Umbria Region start up by a group of seven professionals working on complementary sectors (psychotherapy, development cooperation, social works). The main objective of NoGap is the reintegration into society of people in dual diagnosis (mental health and addictions) with aspecial lens on the gender aspects resulting on triple vulnerability.

The organization:

- Supports other organizations in planning of interventions in Italy as well as abroad;
- Undertakes research and professionals' interventions;
- Applies art (Theatre and Music) with the aim of fostering critical thinking on inclusion/double diagnosis/ and develop educational activities;
- Engages in international collaborations and projects to develop new tools / methodologies / approaches for learning and inclusion;
- Explores the potentialities of social and inclusive entrepreneurship.

Elan Interculturel is an organization created in 2008 by five women psychologists, researchers and trainers - all immigrants to Paris - who wanted to explore and develop new methods to facilitate intercultural communication, collaboration and adaptation.

Our missions consist in:

- Developing and facilitating training sessions on intercultural communication (social workers, education professionals, etc.).
- Providing workshops and informal learning opportunities for people in intercultural transition or in areas of cultural contact (newcomers, asylum seekers, unaccompanied minors).
- Conducting research in cross-cultural and social psychology to enhance an understanding of cross-cultural dynamics.
- Participating in international collaborations and projects to develop new tools and methodologies to facilitate intercultural contact or adaptation.



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élan interculturel

Association Élan Interculturel 24, Quai d'Austerlitz - 75013 Paris (France) www.elaninterculturel.com LINARIA

INSPRIRA!

Linaria is a non profit association founded in Rome in 2011. With projects, temporary installations, events, and books, Linaria works to design and build new urban, green, public spaces with the aim to promotes a reflection on diversity - botanical, social and cultural - as a heritage to be defended and a resource for urban living.

Social commitment is always at the heart of Linaria's work, not only to foster inclusive and participatory processes, but also to create opportunities for knowledge exchange and skills, to promote active citizenship actions, and to emphasise an explicitly multicultural dialogue and dimension for functional, sustainable and inclusive design solutions.

Thanks to the organisation of free workshops, Linaria involves multidisciplinary groups in co-design processes with the aim of widening research spaces, promoting critical thinking through discussions and comparisons, enhancing interdisciplinarity, curiosity, reflection, observation.

Associação Inspira! is a non-governmental organisation founded in 2017 in Chaves, a small city in the northern hills of Portugal, one of the most rural, isolated and disadvantaged areas of the country.

We focus on two main areas of work: youth opportunity and environmental intervention, aiming at creating a more open, educated, participative and developed local community, at involving young people in the local decisions, in shaping the creation of the future of this region and in protecting, and recovering the local nature and our ecological patrimony.

For that we lead frequent actions and diverse local and international programs for volunteering, youth participation, community development, environmental education, intervention actions, civic and democratic education, media literacy, youth entrepreneurship and employment, genderequality and social education.



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