

heritage

DesignYourHeritage video game
MANUAL

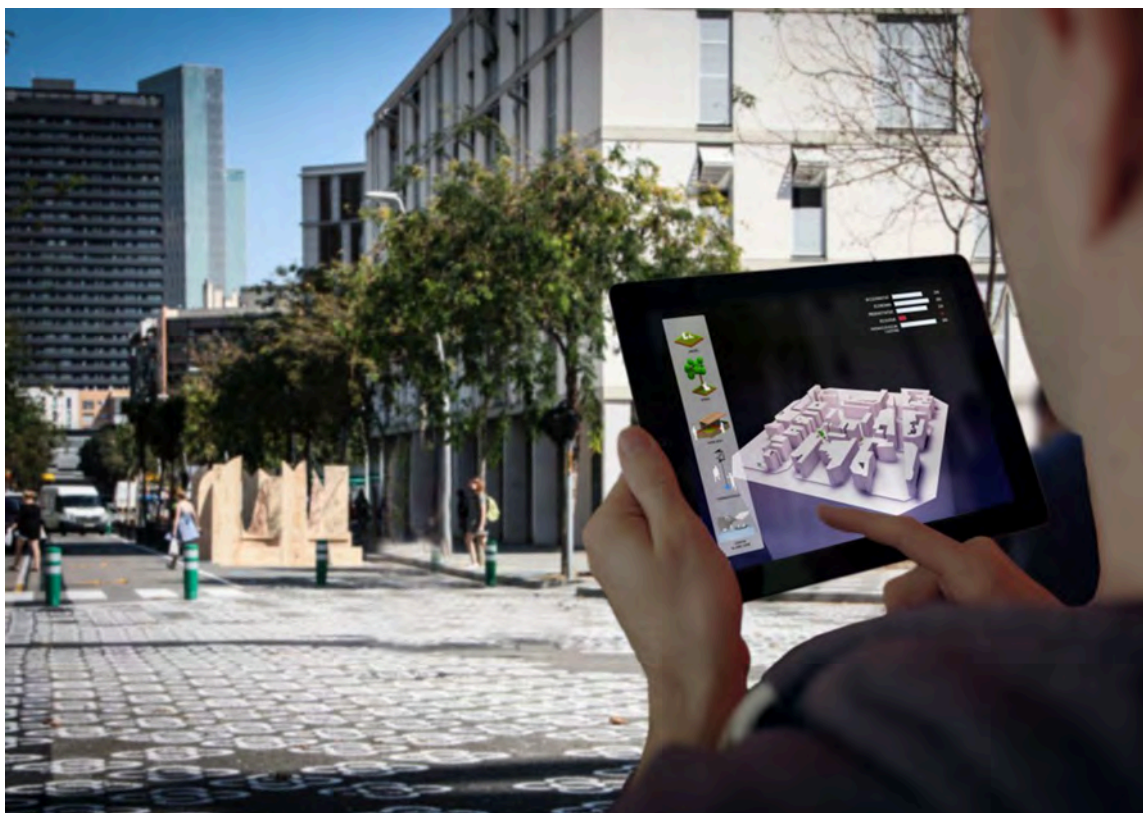


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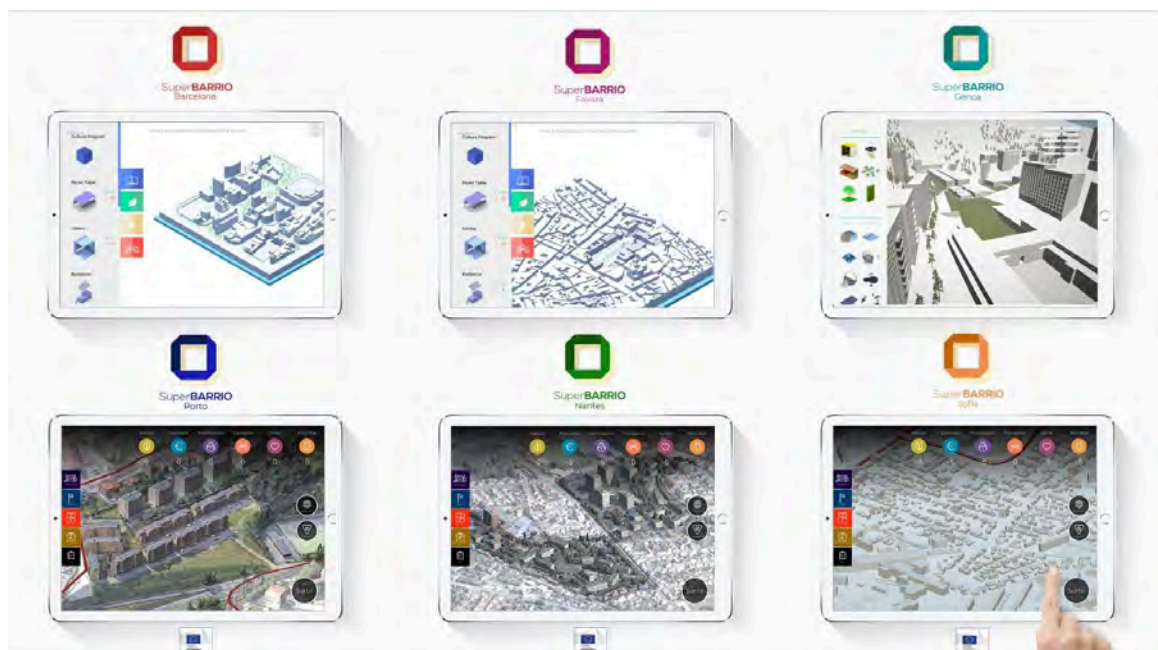
What is DesignYourHeritage

DesignYourHeritage is a video game that empowers citizens of all ages to engage in the design and reactivation of heritage spaces.

DesignYourHeritage - a new edition of the SuperBarrio video game developed for the URBiNAT H2020 project - is a cutting-edge digital tool that empowers citizens of all ages to actively engage in the design and reactivation of their heritage spaces. The tool invites participants to explore, envision, and contribute to the future of their local heritage sites. With its dynamic and user-friendly interface, participation in the design process is playful and engaging. The tool provides a catalogue of design solutions, developed by Heritact partners, based on the principles of the New European Bauhaus initiative. The users can choose which solution they find the most suitable for their heritage space and drag them into the 3D representation of the area. By placing the chosen solution(s) to the area, the tool calculates a performance score based on the indicators of 'culture', 'community', 'climate resilience', and 'experience', offering a holistic view of each design's expected impact. User data is collected and analysed to assist policy makers, public authorities, urban planners, and architects in making informed decisions regarding interventions.



SuperBarrio Barcelona



Previous Versions of SuperBarrio

Target Audience and Application

The DesignYourHeritage video game is a dynamic digital tool designed for public entities, urban planners, and architects to make co-design processes more inclusive and more 'playful'. Its purpose is to engage citizens of all ages in the collaborative design of heritage spaces, providing them with a platform to make an informed decision on what they want to see in their heritage space, voice their opinions, express desires, and share proposals. This innovative tool facilitates the collection and display of valuable quantified data. In addition, it serves to educate users on the principles of the New European Bauhaus initiative. With some changes, the video game can be easily deployed across various sites.

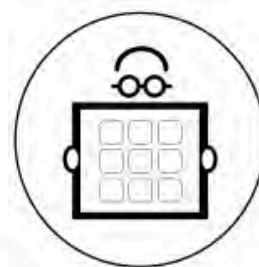
The expected impact of using DesignYourHeritage includes fostering local pride, encouraging active community participation, providing valuable data for a community-centric heritage reactivation and contributing to increased awareness of European initiatives (New European Bauhaus, European Green Deal, Nature-based Solutions)



DATA
ANALYTICS



EDUCATION and
AWARENESS



COMMUNICATING
URBAN PLANS

How to Play

Time: maximum 30 minutes

Users: DesignYourHeritage can be used independently, yet, co-design workshops are suggested to be organised to enhance the tool's potential. Local stakeholders with all ages and backgrounds are welcome to use the tool. Users should have a basic understanding of the project, pilot sites and local needs in order to engage in the co-design process effectively.

Equipment: Tablets or smartphones equipped with the Android operating system are required, along with an internet connection, to download the video game and upload data of the game sessions on the back end cloud. The download is available free of charge.

Skills: Users need basic computer skills and knowledge of the pilot site(s) to use the tool effectively.

Step-by-step instructions:

1. Download the game from the Google Play Store
2. Sign in by fill in the questionnaire
3. Goal of the game is to get a highest balanced impact score. Counters start at 0 and changes according to the chosen design solutions
4. Browse the catalogue of solutions and read descriptions
5. Zoom in the intervention area and chose which solution fits there the best
6. Drag and drop solutions into the chosen area. By clicking on a solution an information module pops up. You can rotate or remove the chosen solutions.
7. Evaluate your decision by studying the impact scores
8. Review the game

Catalogue of Solutions

Description of Solutions

	Category	Name of the Solution & Location (E-Eleusis, B-Ballina, M-Milan)	Description
1.1	Exhibition and information space	Information pavilion (E,B)	The small-scale, lightweight, reconfigurable, and portable pavilion is designed to serve as an outdoor information hub for local events and programs.
1.2		Mobile exhibition space (E)	The portable furniture is designed to be easily moved and used in different places. It can function as an exhibition space or provide information about local events and activities. Furthermore, green elements are incorporated into it.
2.1	Educational space	Learning pavilion (E,B)	The small-scale, lightweight, reconfigurable, and portable pavilion is designed to function as an outdoor learning space accommodating various age groups.
2.2		Mobile school (E,M)	The movable group of furniture is designed as an outdoor learning space that can be arranged in various ways.
2.3		Kids garden wall (B,M)	Constructed with advanced manufacturing techniques, this green modular system is an innovative green wall that functions as an educational garden, featuring various plants. Its vertical design enables installation in areas where a traditional garden may not be feasible.
3.1	Shading system	Green tensegrity for shading (E,M)	The lightweight, self-sustaining, green structure serves as a sun refuge, providing shading and cooling thanks to the evapotranspiration effect of the vegetation. The tensegrity design concept relies on components arranged in a way that balances forces of tension and compression, resulting in a stable yet flexible structure.
3.2		Shading from recycled materials (E,B)	Following the “Cradle-to-cradle” approach of full life-cycle design, a shading structure is developed by using organic materials.

3.3		Climate shelter pavilion (E)	The small-scale, lightweight, reconfigurable, and portable pavilion is designed to function as a sun refuge, providing shading. Its versatility allows for easy reconfiguration, making it suitable for various settings and adaptable to changing environmental conditions.
4.1	Water management system	Tensegrity installation for water harvesting (E,M)	The lightweight, self-sustaining, green structure integrates a fog harvesting system or a rainwater collector. The tensegrity design concept relies on components arranged in a way that balances forces of tension and compression, resulting in a stable yet flexible structure.
4.2		Water pavilion (E,B)	The small-scale, lightweight, reconfigurable, and portable pavilion is designed to function as a water management system, serving purposes such as a fog harvesting system or rainwater collector.
4.3		Nature-based Solution for water management (B,M)	This green design solution is planned to incorporate water as a key element of the design. The Nature-based Solution uses natural processes to convey stormwater runoff while removing debris and pollution. It can also be a solution to recharging groundwater. The solution is designed to foster the community's connection to nature according to the principles of the European Green Deal.
4.4		Green wall for water absorption (B,M)	Constructed with advanced manufacturing techniques, this green wall serves multiple purposes: it absorbs rainwater acting as a water buffer to delay discharge to the sewage system, it purifies rainwater, and it facilitates water evaporation through the plants. These features stabilise groundwater levels, lessen the peak load on the sewage system, and mitigate the risk of flooding.
5.1	Community Space	Green tensegrity meeting space (E,M)	The lightweight, self-sustaining, green structure can be used as a small outdoor meeting space for community events. The tensegrity design concept relies on components arranged in a way that balances forces of tension and compression, resulting in a stable yet flexible structure.
5.2		Gathering pavilion (E,B)	The small-scale, lightweight, reconfigurable, and portable pavilion is designed to function as community meeting space. Its versatility allows for easy reconfiguration, making it suitable for various settings and adaptable to changing environmental conditions.

5.3		Table tennis furniture (E,M)	This easily movable ping pong table can be positioned in any outdoor location based on the community's needs. When not used as table tennis, it functions as an outdoor furniture piece.
5.4		Chess furniture (E,M)	These outdoor furniture pieces can be arranged into a 'life-size' chess table, offering a recreational activity for the community.
5.5		Cultural and artistic events pavilion (E,B)	The small-scale, lightweight, reconfigurable, and portable pavilion is designed to function as a music performance stage. Its versatility allows for easy reconfiguration, making it suitable for various settings and adaptable to changing environmental conditions.
5.6		Music stage (E)	These outdoor furniture pieces can be configured into a stage setting suitable for music and other performances, enhancing the versatility of the space for community events and entertainment.
5.7		Mobile benches and tables (M)	Designed for versatility, these portable outdoor furniture pieces offer multiple functional options, serving as a reading bench or an outdoor workspace for remote workers.
5.8		Mobile kitchen and bar (M)	This portable lightweight structure serves an outdoor community kitchen and bar. Its versatile layout and functionality make it an ideal space for community gatherings and events.
5.9		Mobile market (M)	Designed not only for outdoor markets, this portable structure of tables and benches can transform into community furniture for gatherings between market days.
6.1	Biodiversity system	Sensory green wall (B,M)	Constructed with advanced manufacturing techniques, this innovative green modular system serves as a sensory garden, stimulating vision, hearing, touch, taste, and smell through diverse plants and insects. Its vertical design enables installation in areas where a traditional garden may not be feasible.
6.2		Sensory garden (B,M)	The sensory garden is a green solution to stimulate vision, hearing, touch, taste, and smell through diverse plants and insects. It aims to foster a community's connection to nature with positive effects on the environment and the psychophysical health of citizens.

			Moreover, it is a tool for biodiversity education and scientific research development.
6.3		Bug hotel wall (B,M)	Constructed with advanced manufacturing techniques, this innovative green modular system functions as an insect hotel, providing a habitat that supports biodiversity. Its vertical design allows for installation in areas where a traditional garden may be impractical.
6.4		Linear bug hotel (B,M)	This linear insect hotel offers a habitat for pollinator species that support biodiversity and it fosters the community's connection to nature. As a Nature-based Solution, it directly aligns with and contributes to the European Green Deal according to the principle of promoting Biodiversity for fauna and flora on site.
6.5		Pollinator garden (B,M)	Featuring different pollinator plants, this garden offers habitat that supports biodiversity and fosters the community's knowledge on biodiversity and citizens' connection to nature. As a Nature-based Solution, it directly aligns with and contributes to the European Green Deal according to the principle of promoting biodiversity for fauna and flora on site using local-based materials.
6.6		Vertical food farm (B,M)	Constructed with advanced manufacturing techniques, this innovative green modular system serves as a vegetable garden, offering a source of edible plants for the community and fostering a self-sustainable lifestyle. Its vertical design allows for installation in areas where a traditional garden may be impractical.
6.7		Tiny forest (B,M)	This green design solution is a miniature forest, promoting biodiversity within a small space and introducing natural elements in urban areas, with positive effects on the environment and the psychophysical health of citizens. It aims to be a driving force for a new approach to green areas in the city that imitates natural processes for better management of green spaces. Moreover it is a tool for biodiversity education and scientific research development.
6.8		Mobile garden (M,E)	The mobile garden is designed to be highly flexible. It is portable and can easily be placed in different areas of the site depending on where it is needed and what conditions are best for the plants.

7.1	Immersive digital space	Virtual exhibition (E,M)	The virtual exhibition ensures easy accessibility and inclusion for remote audiences interested in exploring local cultural heritage. As individuals navigate the virtual environment, they can uncover various aspects of the heritage site, access extra content like sounds and music videos, and connect with archives from other heritage sites. The augmented information not only immerses people in the virtual world but also offers additional details for those participating in person.
7.2		Projection mapping (E,B)	Projection mapping is a tool that helps visitors in engaging with and immersing themselves in the physical space. The theme of the projection is strongly connected to the local community and history.
7.3		Interactive AR experience (E,B,M)	Interactive augmented reality (AR) enriches the information accessible to the in-person audience. This enhancement is activated by scanning a QR code, which can either incorporate augmented information directly or redirect users to sounds, music, or playlists.

Impact Score

The DesignYourHeritage video game catalogue presents each solution with an impact score on a 0-4 scale. This score is assigned based on four key aspects: 'culture,' 'community,' 'climate resilience,' and 'experience.' The categories are based on the key terms of the New European Bauhaus: Beautiful, Sustainable, Inclusive

4: very relevant

3: relevant

2: somewhat relevant

1: less relevant

0: not applicable

Culture: On a 0-4 scale, how much the solution contributes to foster local cultural activities, promotes local culture, and/or provides education on local culture.

Community: On a 0-4 scale, how much the solution contributes to strengthening local community bonds, such as providing space for events, promoting local community activities and/or fostering participation in local community gatherings.

Climate resilience: On a 0-4 scale, how much the solution contributes to climate resilience, such as promoting biodiversity and/or utilising various nature-based solutions.

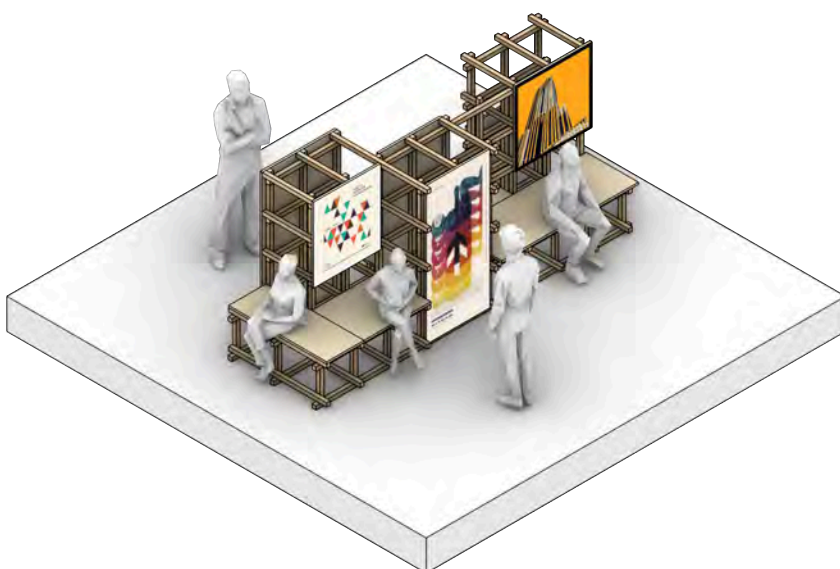
Experience: On a 0-4 scale, to what extent the solution provides unique experience, such as exceptional design and/or multi-sensorial experience.

	Name of the Solution	Impact Score			
		Culture	Community	Climate resilience	Experience
1.1	Information pavilion	2	3	1	2
1.2	Mobile exhibition space	3	2	1	2
2.1	Learning pavilion	4	3	1	2
2.2	Mobile school	4	3	1	2
2.3	Kids garden wall	4	3	3	3
3.1	Green tensegrity for shading	3	4	3	3
3.2	Shading from recycled materials	2	3	2	3
3.3	Climate shelter pavilion	0	2	4	2
4.1	Tensegrity installation for water harvesting	1	2	4	4
4.2	Water pavilion	1	2	4	3
4.3	Nature-based Solution for water management	2	2	4	2
4.4	Green wall for water absorption	1	2	4	3
5.1	Green tensegrity meeting space	2	4	2	4

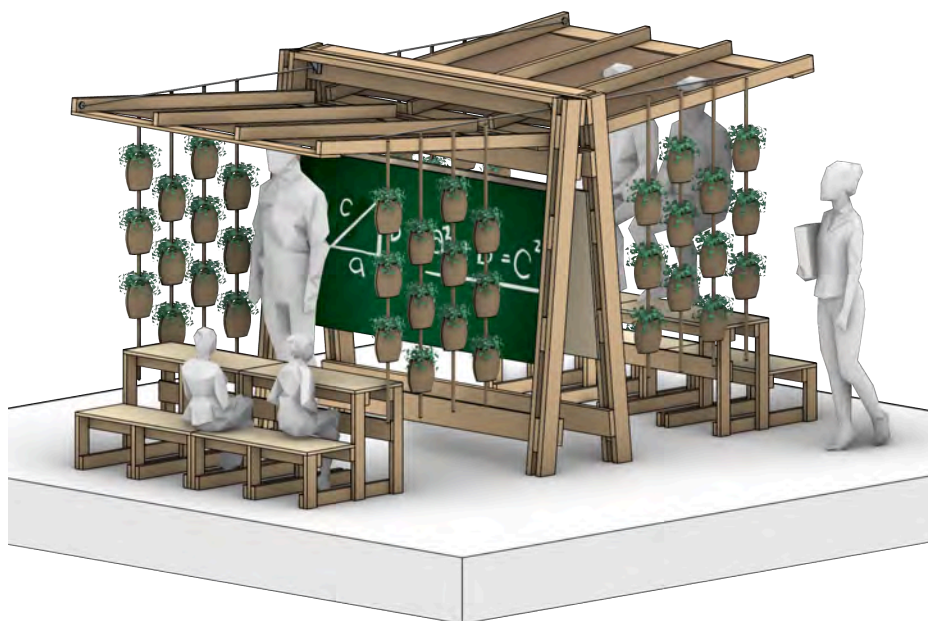
5.2	Gathering pavilion	2	4	0	2
5.3	Table tennis furniture	2	4	0	3
5.4	Chess furniture	2	4	0	3
5.5	Cultural and artistic events pavilion	3	4	0	3
5.6	Music stage	3	4	0	3
5.7	Mobile benches and tables	2	4	0	2
5.8	Mobile kitchen and bar	2	4	1	3
5.9	Mobile market	2	4	0	3
6.1	Sensory green wall	1	3	3	4
6.2	Sensory garden	3	3	3	4
6.3	Bug hotel wall	2	2	3	3
6.4	Linear bug hotel	3	3	3	4
6.5	Pollinator garden	3	3	4	3
6.6	Vertical food farm	2	3	4	3
6.7	Tiny forest	3	3	4	3
6.8	Mobile garden	1	3	3	3
7.1	Virtual exhibition	4	2	1	4
7.2	Projection mapping	4	2	1	4
7.3	Interactive AR experience	4	2	1	4

Images of the solutions

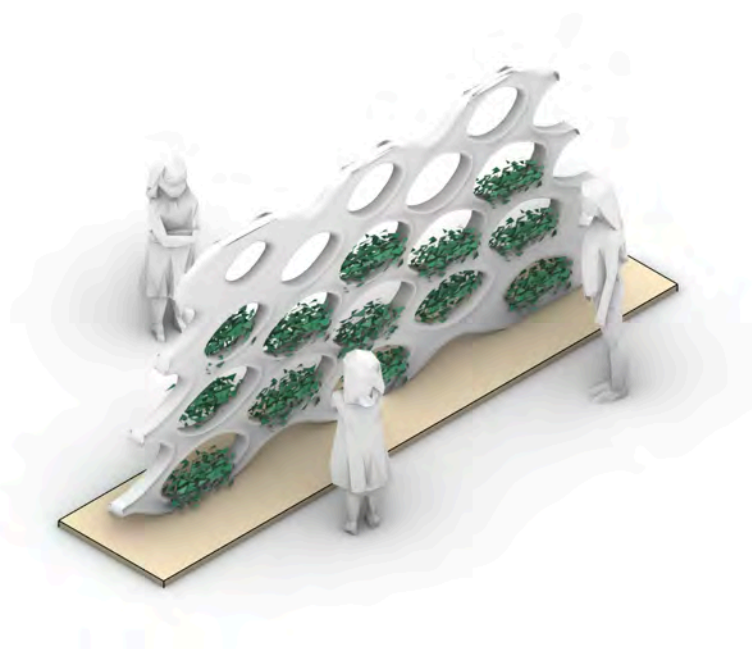
//The list is still to be finalised



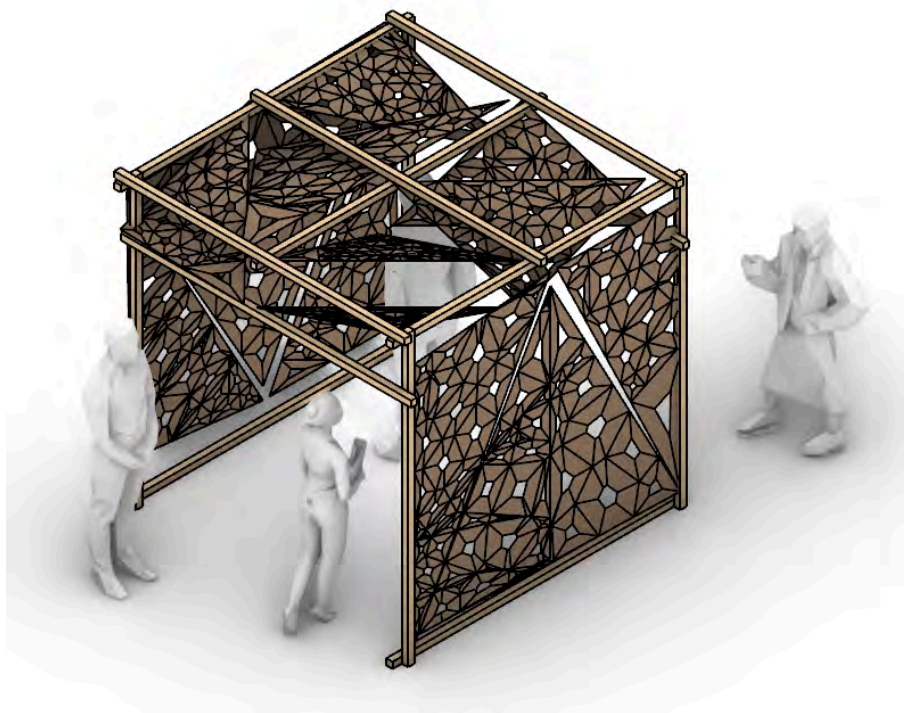
Mobile exhibition space (Eleusis)



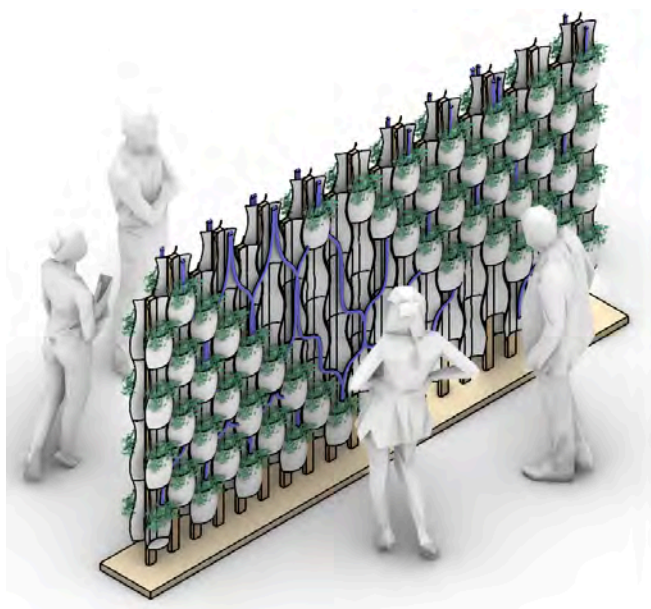
Mobile school (Eleusis, Milan)



Kids garden wall (Ballina, Milan)



Shading from recycled materials (Eleusis, Ballina)



Green wall for water absorption (Milan, Ballina)

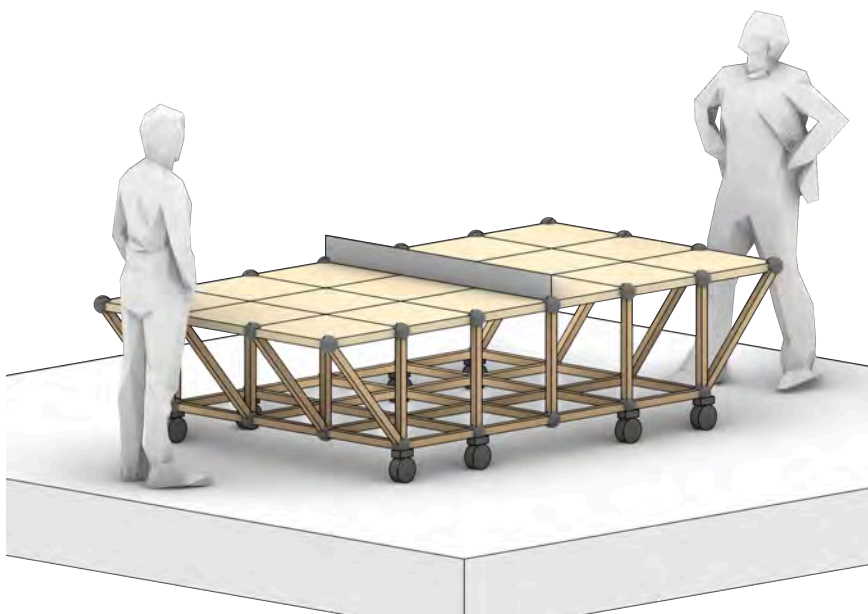
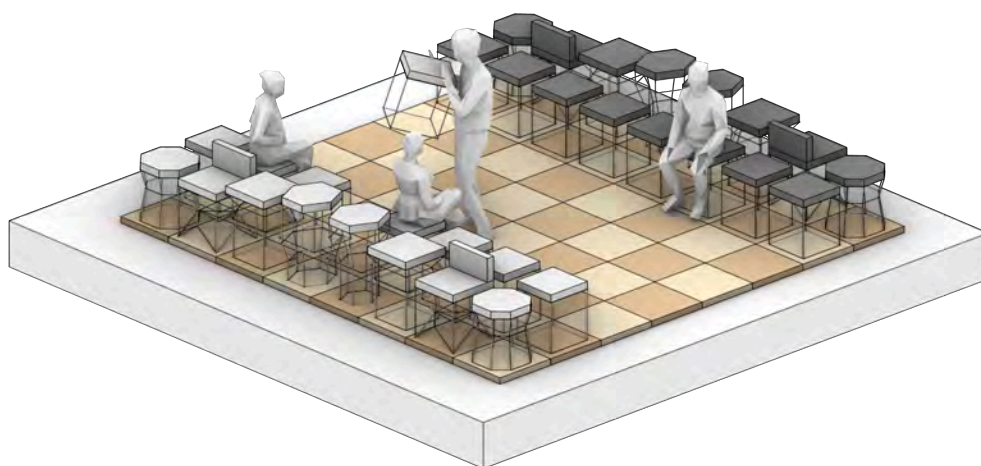
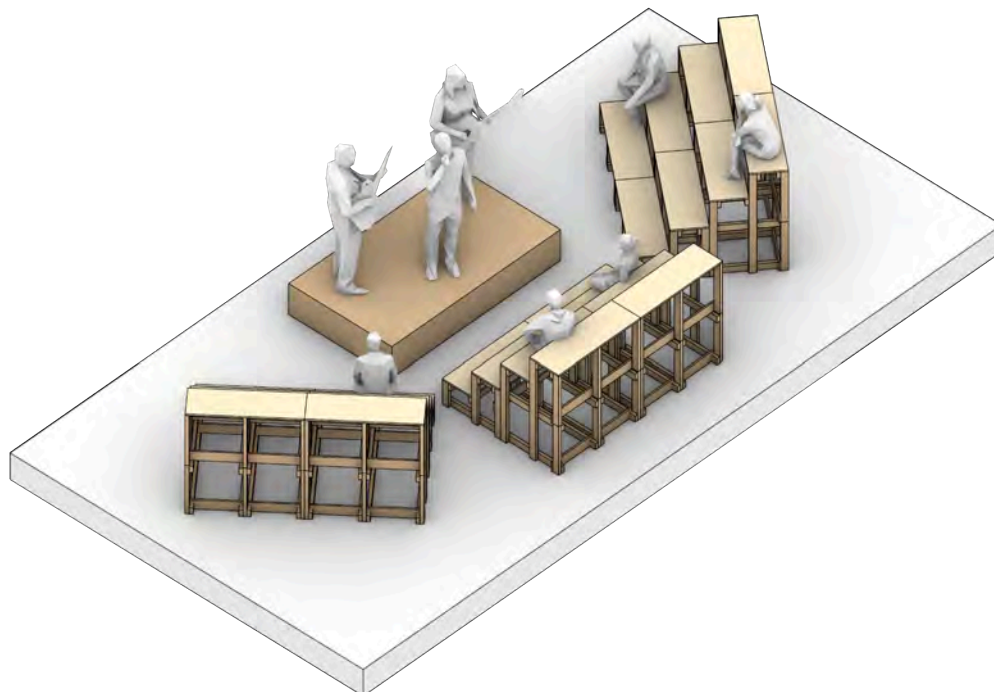


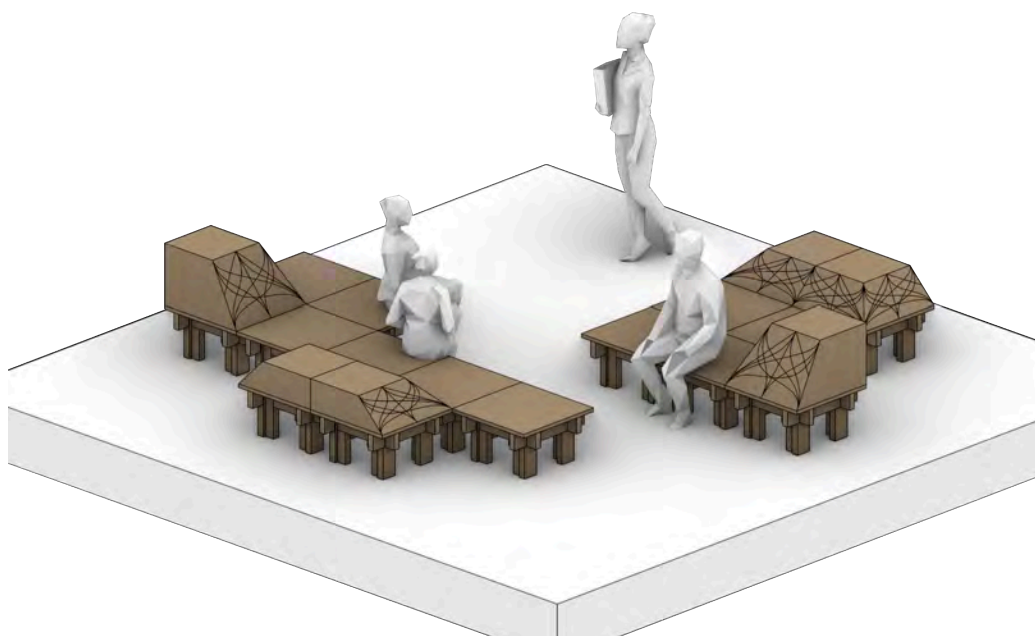
Table tennis furniture (Eleusis, Milan)



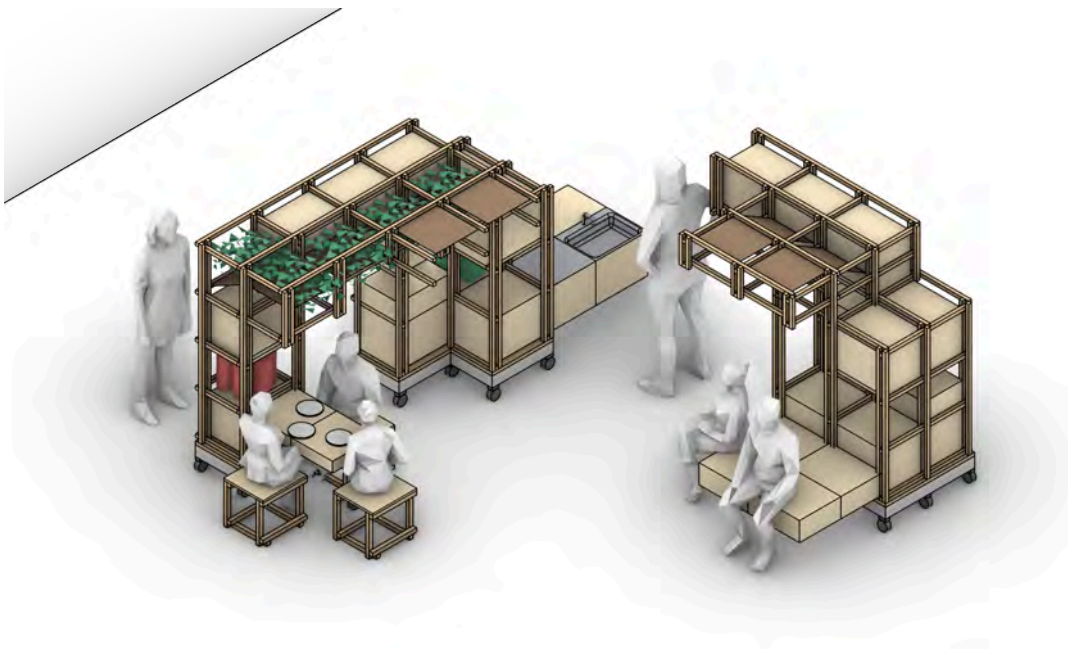
Chess furniture (Eleusis, Milan)



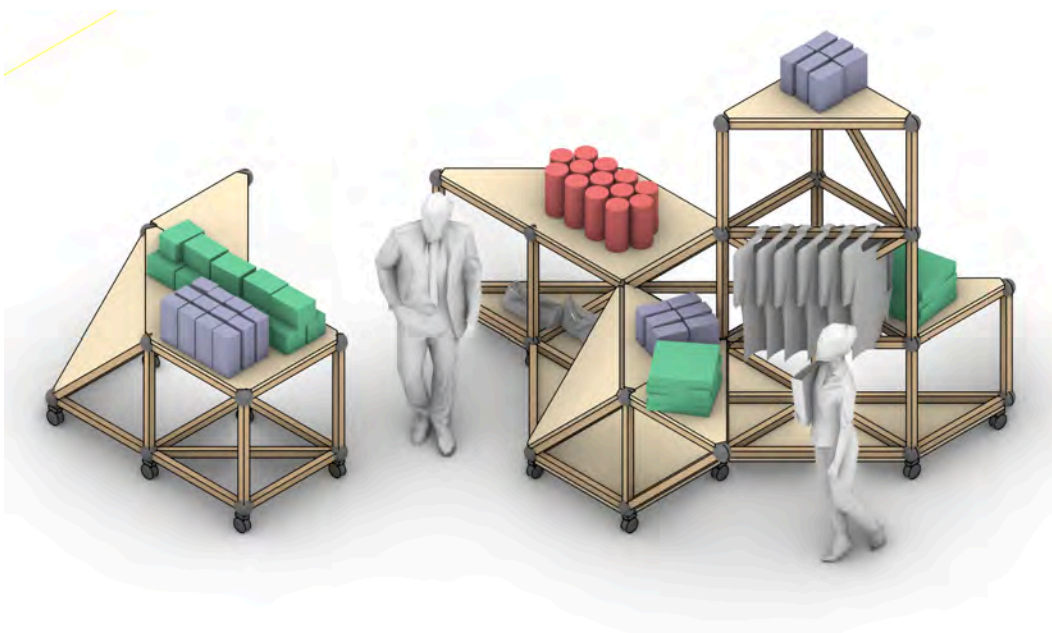
Music stage (Eleusis)



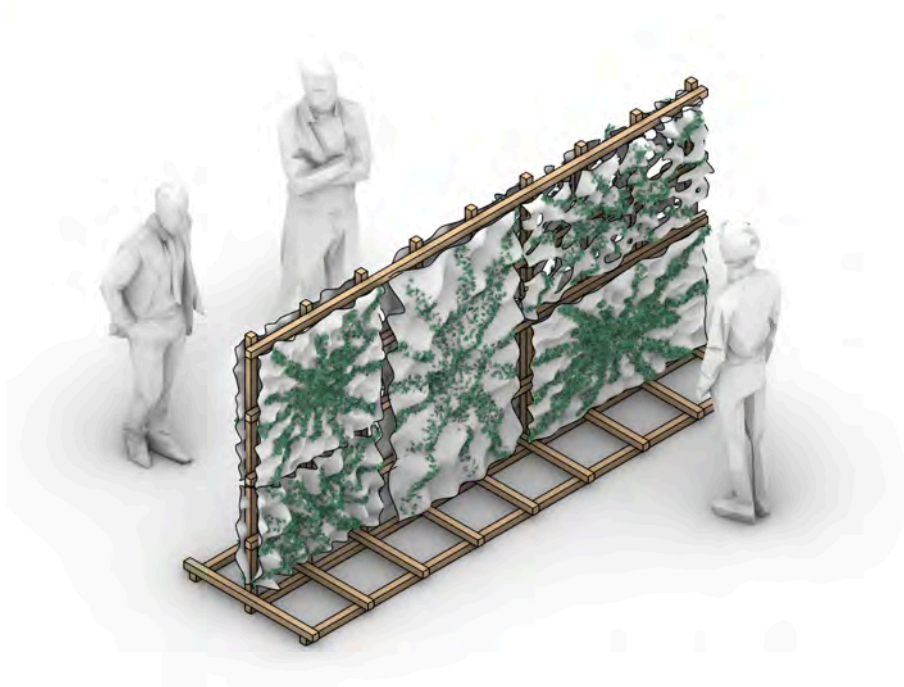
Mobile benches and tables (Milan)



Mobile kitchen and bar (Milan)



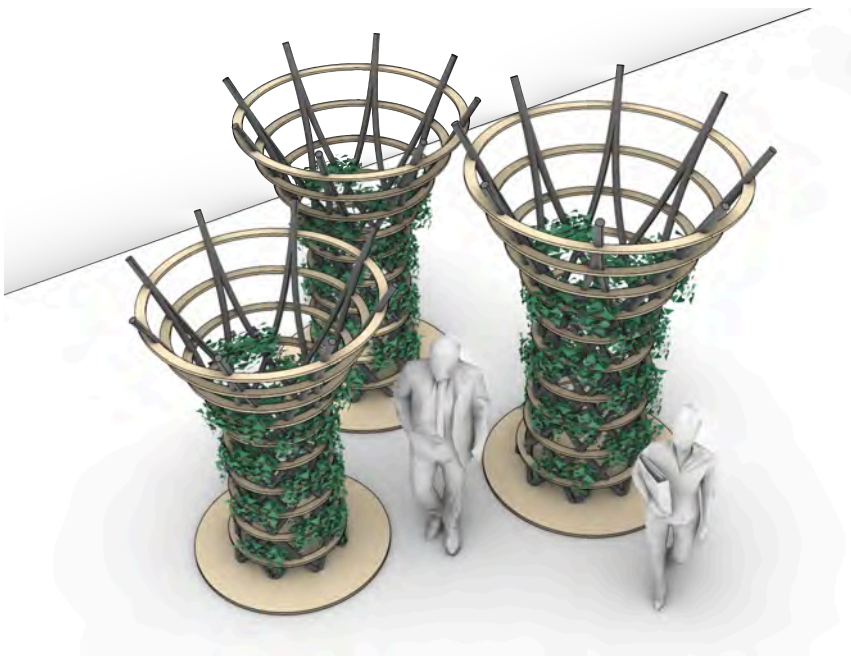
Mobile market (Milan)



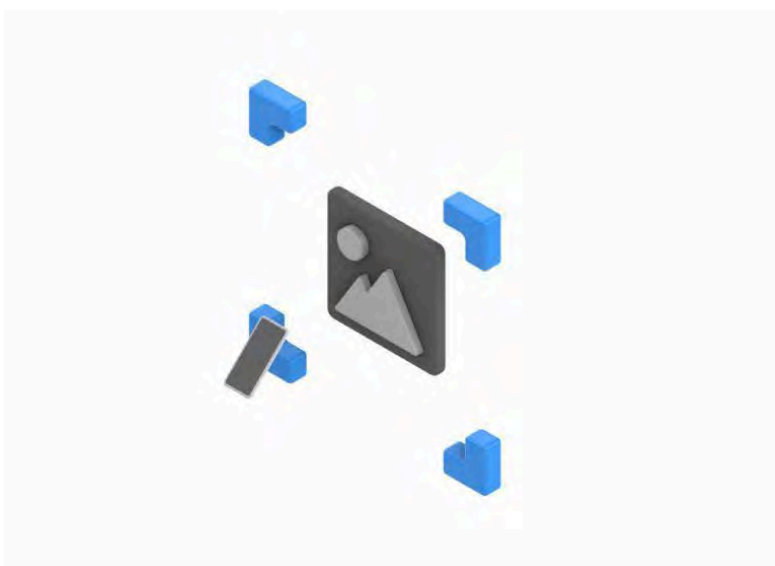
Sensory green wall (Milan, Ballina)



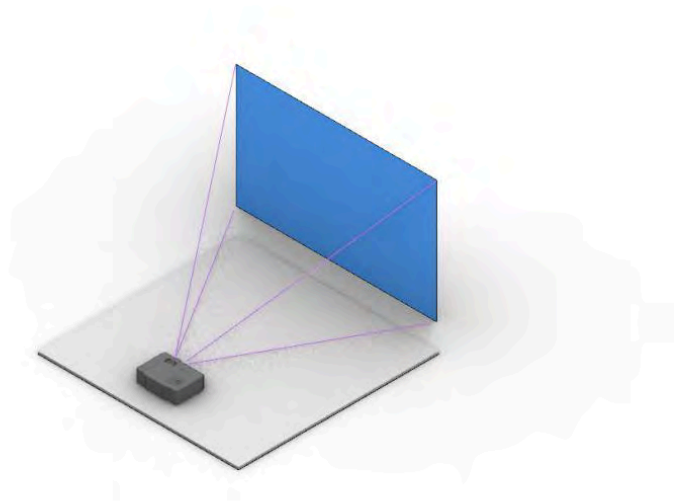
Bug hotel wall (Milan, Ballina)



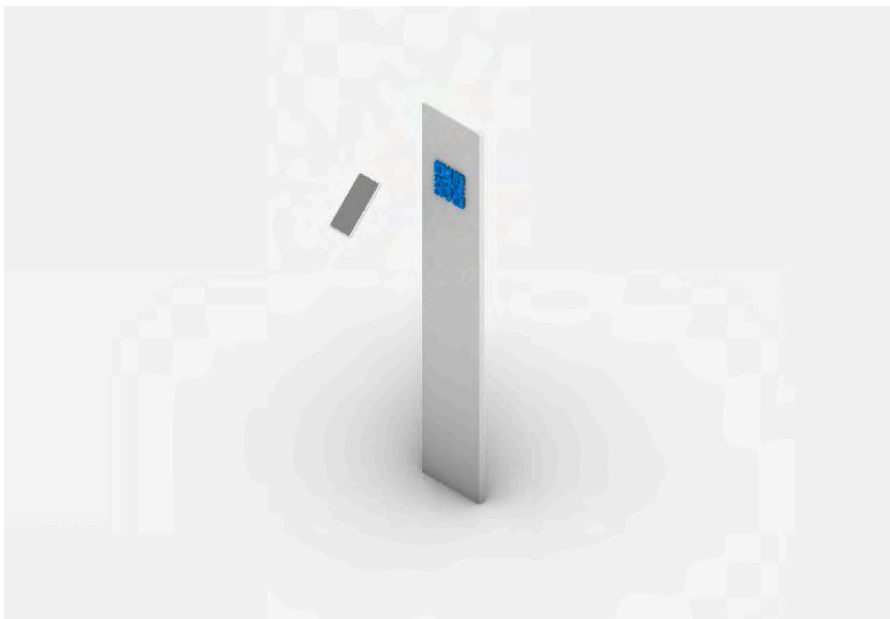
Vertical food farm (Milan, Ballina)



Virtual exhibition (Eleusis, Milan)



Projection mapping (Eleusis, Ballina)



Interactive AR experience (Eleusis, Ballina, Milan)