



# What Goes Around, Comes Around

## Circular Design Symposium in Vilnius

*March 19–21, 2026 · Vilnius, Lithuania*

*CiD conference (Circular Design Education)*

### **ARCES Association**



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Programmes

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# Palermo WORKSHOP

## From Circular Thinking to Construction: Prototyping with Bio-Based Materials.

Feb 28–Mar 4, 2026

### PARTNERS:

- ARCES – High School, Palermo (Italy)
- Order of Architects of Palermo (sponsors) (Italy)
- Arenella Neighborhood Laboratory of Palermo (Italy)
- Officine Scalo 5B, Lisca Bianca, Palermo (Italy)
- Antiche Fornaci Majorana of Palermo (Italy)
- Guglielmino Cooperativa, Misterbianco Catania (Italy)



### LECTURES

- Elena Catalano, Architect, USI AAM, Switzerland
- Zeno Franchini, Designer, Co-Head, Master IED Torino, Italy
- Ilgin Ezgi Tunc, Architectural Scientist & Natural Materials Researcher, Tokyo, Japan
- Tina Ekener, Baubüro InSitu, Switzerland
- Alessandro Pernice, EU Affairs Expert & Senior Project Manager, ARCES, Italy

**Locations:** ARCES, Scalo 5B, Antiche fornaci Majorana

**Who's Talking About Us?** [BALARM](#) / Watch the [Video](#)



### TARGET AUDIENCE:

Students and young professionals in architecture, urban planning, design, engineering, and technology, job seekers.

# 1. Key Goals of the Workshop



- Introduce the principles of circular design applied to architecture and bio-based materials.
- Explore the relationship between territory, local resources, and sustainable construction processes 1.1.

- Develop a design approach that integrates material performance, life-cycle thinking, and short supply chain logic.
- Promote collaborative working methods, self-construction, and hands-on experimentation.
- Rethink the way we design and build through the principles of the circular economy, using in particular an ancient yet innovative material—hemp-lime.



## 2. Approach: classroom learning & hands-on experimentations

### Theoretical knowledge exchanges at ARCES:

- Lectures: From Vernacular Wisdom to Circular Design



### Site Visits:

- Visiting public areas (e.g. Arenella) for the placement of final urban furniture



### Site Visits:

- Visiting Former Lime Kiln "Antiche Fornaci Majorana"/ Understanding how local lime production as burning process



### Business Visits:

- Neighborhood Laboratory of Palermo - understanding request of societies for urban spaces



# 2. Approach: classroom learning

Theoretical knowledge exchanges at Scalo 5B:  
Lectures  
Understanding Hemp and Lime: Materials and Benefits



## 2. Approach: hands-on experimentation

### Industrial factories: Scalo 5B.

Small-scale experiments to understand the properties of hemp and lime and explore why they work together

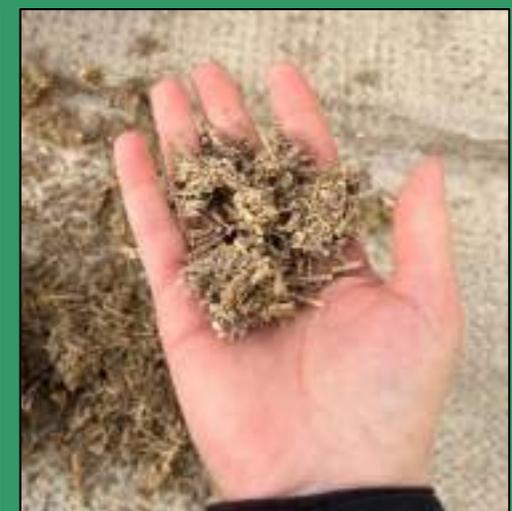


# 3. Key Activities

- Selection of best mixture for further production of blocks
- Understanding and Starting Molding of Blocks by premixture of Hemp & Lime
- Checking Properties of Overnight Dried Blocks



Exp. No.	Exp. Date	Exp. Time	Exp. Result
1	10/10/2023	10:00	100% success
2	10/10/2023	10:00	100% success
3	10/10/2023	10:00	100% success
4	10/10/2023	10:00	100% success
5	10/10/2023	10:00	100% success
6	10/10/2023	10:00	100% success
7	10/10/2023	10:00	100% success
8	10/10/2023	10:00	100% success
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17	10/10/2023	10:00	100% success
18	10/10/2023	10:00	100% success
19	10/10/2023	10:00	100% success
20	10/10/2023	10:00	100% success



# 3. Key Activities

- Preparing Mixture of new ratios of Hemp & Lime. Performing of understanding
- Molding with Pressure and Perforated Mold
- Designing of Final Urban Furniture by Blocks
- Overnight Dried Blocks



# 3. Key Activities

- Understanding Coating and Plastering with Local Materials by Guglielmino Malte
- Continue Production of Blocks and Performing coating as sample
- Final Day: Design Sketches and Setting Exhibition
- Final Day: Presentation and Certifications



<https://www.guglielminocooperativa.it>



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# 4. Methods and tools

## Methods

- Learning-by-doing approach:
- Adaptive and collaborative design methods

## Materials

- Hemp + Lime Mixture provided by BIOmat <https://biomatcanapa.it/en/>

## Tools

- Tools for mixing, shaping, applying, and finishing the material



## 5. Lessons learned: positive aspects

- Moved from concept to practical implementation
- Elements include both predefined structures and flexible components for public use
- **Next steps:** obtain authorizations to implement the project and bring value to the neighbourhood
- Student involvement
- Donation of workshop-designed materials for the Arenella seafront



## 5. Lessons learned: negative aspects

- Limited integration of digital tools
- Insufficient time for digital fabrication processes
- Lack of time and financial resources to fully develop public furniture projects
- Need for deeper exploration of interdisciplinary connections
- Lack of focus on economic and entrepreneurial aspects



## 6. Transferable/scalable elements

- Potential to inspire urban regeneration in other Palermo neighbourhoods: *Borgo Vecchio, La Zisa, Sperone, etc.*
- Collaborate effectively in multidisciplinary teams
- Use prototyping as a tool for thinking and exploration
- Translate abstract concepts into tangible representations
- Apply collaborative design methods across contexts
- Demonstrate ownership of the design process



Borgo Vecchio neighborhood



Zisa neighborhood



Sperone neighborhood

# CiD Project *Circular design for bio-based innovation towards climate-neutral cities*



**THANK YOU**



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