

New European Bauhaus Academy

Week 1: Principles of Circular
Design for Interiors
Volupte Studio



**Circular
Bio-based
Europe**
Joint Undertaking

 Bio-based Industries
Consortium



Co-funded by
the European Union

What is Circular Design?

- A regenerative approach to design
- Focuses on reuse, recovery, and reduction of materials
- Moves away from the traditional “take-make-dispose” model



Core Principles of Circular Design

- Design for durability
- Design for reuse & repair
- Keep materials in use
- Use safe & non-toxic inputs
- Regenerate natural systems
- Icons/visuals for each principle

Linear vs Circular Systems

Linear = resource extraction → production → waste

Circular = resource reuse → production → recovery

Environmental impact comparison

The Environmental Cost of Traditional Plaster

High energy use in gypsum production

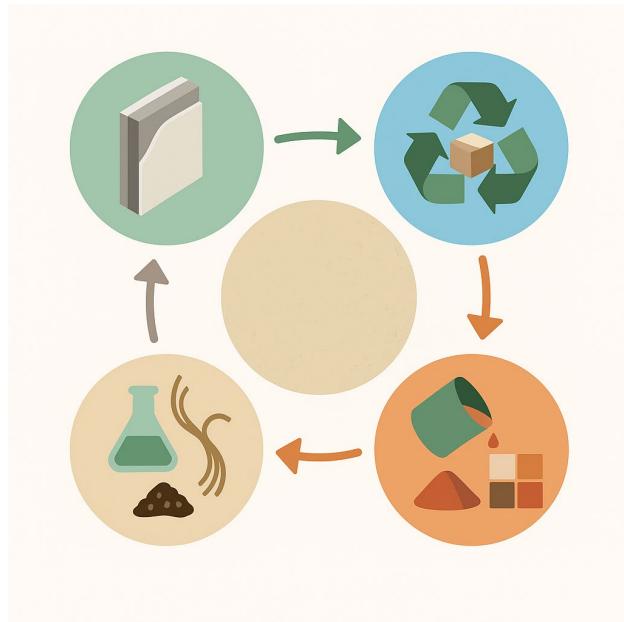
Landfill impact of offcuts and waste

Non-renewable extraction practices

Limited reuse or recyclability of standard materials

Why Recycled Plaster?

- Diverts material from waste stream
- Reduces CO2 emissions from production
- Cheaper and locally available
- Compatible with natural binders and finishes



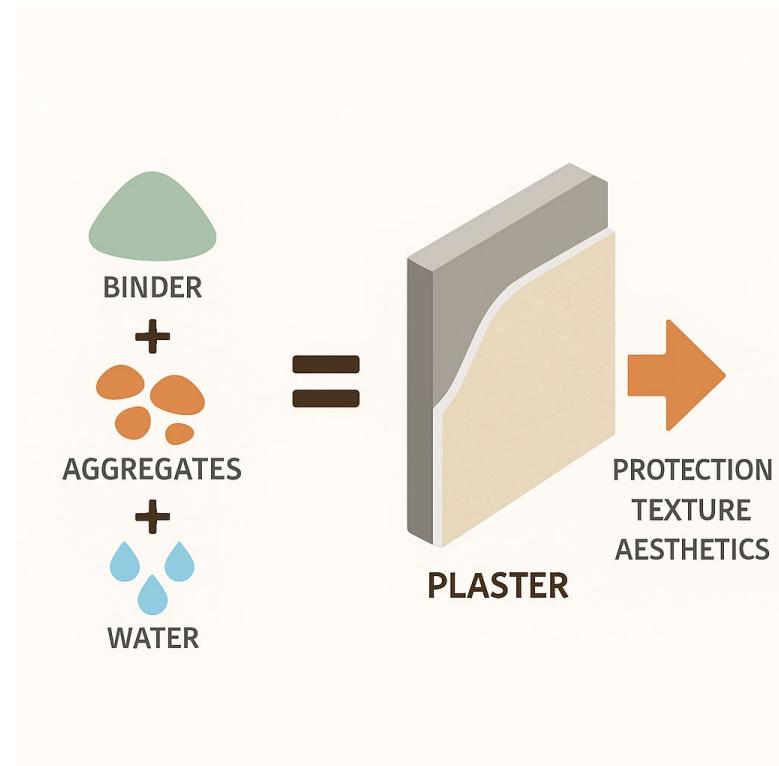
Circular Wall Finishes in Practice

Reuse of materials onsite

Compostable additives (e.g. fibers, casein)

Designing finishes for easy repair

Non-toxic pigments and finishes



Tools to Support Circular Design

Ellen MacArthur Foundation's Circular Design Guide

Cradle to Cradle® certification overview

Material passports

Lifecycle Assessment (LCA) tools

Your Role as a Designer or Builder

Choose materials for longevity and reuse

Ask questions about sourcing and waste

Consider end-of-life in design decisions

Collaborate with local suppliers

Recap & What's Next

Circular design is about regeneration, not just sustainability

Recycled plaster is a key low-carbon material

Next session: “Understanding Plaster Basics”

Download: Illustrated Overview, Glossary, Quiz



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The project is supported by the Circular Bio-based Europe Joint Undertaking and its members.

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