

New European Bauhaus Academy

Week 4.2 Applying and
Testing Natural Pigments

Volute Studio



**Circular
Bio-based
Europe**
Joint Undertaking

 Bio-based Industries
Consortium



Co-funded by
the European Union

What We'll Cover Today

How to mix natural pigments into recycled plaster

Wet mix vs. surface wash methods

Sample board application

Durability and sealing

Testing, troubleshooting, and documenting

Materials You'll Need

Recycled plaster base mix

Natural pigments (ochres, oxides, plant-based)

Water, mixing bowl, scale

Trowel or palette knife

Sample boards or tiles

Optional: binders (lime or casein)

Natural sealers (olive soap, wax, limewash)

Wet Mix Pigment Method

Weigh pigment (e.g., 25g red ochre)

Add water gradually, stir into a smooth slurry

Ensures pigment disperses evenly

Use a sieve if needed



Tinted Plaster Mixing

Combine slurry with plaster base

Mix until uniformly colored

Wet appearance is darker than final dry tone

Mix only as much as needed to avoid waste

Applying the Tinted Mix

Use trowel or palette knife

Apply a thin, even layer

Try different techniques: brushed, floated, textured

Leave space to compare variations side-by-side

Testing Variations

- Test 3 pigment-to-plaster ratios: 1:30, 1:20, 1:10
- Observe intensity, texture, drying behavior
- Label each section clearly
- Use one test board per color or technique

Burnishing for Effect

Lightly burnish half the sample while semi-dry

Compare smooth vs. matte texture

Burnishing can intensify color

Optional for glossy or compressed finishes

Surface Wash Method

Paint diluted pigment over dry white plaster

Creates a watercolor-like effect

Best for subtle tones and layering

Less embedded = lower durability

Sealing Pigmented Finishes

Olive soap: breathable and natural sheen

Lime casein fixative: binds surface wash

Beeswax or linseed: deeper color, more protection

Always test in small area first

Common Issues & Fixes

Pigment clumps → sieve powder first

Uneven color → remix or add more binder

Fading color → use UV-stable pigments (oxides)

Cracking → apply thinner coats, avoid rapid drying

Document Your Results

Label test boards: pigment name, ratio, method

Take photos during process

Store samples for future reference



New European Bauhaus Academy



**Circular
Bio-based
Europe**
Joint Undertaking



Bio-based Industries
Consortium



Co-funded by
the European Union

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

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or CBE JU. Neither the European Union nor the CBE JU can be held responsible for them.

