

ECVET

Earth Building

Units of learning outcomes for eco-construction, renovation and decoration with unfired clay materials

Presentation of new units developed under the PIRATE project for load-bearing building systems, adding to existing units for clay plasters (units C-Clayplaster, D-Interior Design, O-Decorative techniques).

The new units of the ECVET Earth Building address competences from levels 3 to 6 of the European Qualification Framework. Up to EQF level 4, the learning outcomes in the building sector consider execution. From level 5 on, «make» becomes «design», «coordinate» and «control».



UNIT M

Prepare the earth to make building materials

Produce earth building material for:

- rammed earth mix, CEB compressed earth blocks mix,
- cob mix,
- plastering mix, moulded or extruded bricks mix, masonry mortar.

From extraction to mixing:

- convert the raw material (dry, grind, sieve, soak);
- select and add other earths, aggregates, fibres or organic stabilizers;
- transport, store;
- control the water content depending on the material being produced.

UNIT P

Production of moulded, compressed or extruded earth bricks

On or off-site prefabrication, starting from the already prepared mix, **ensure the brick manufacturing steps** (manual or mechanical), drying, handling and storage.



UNIT F

Make formwork for rammed earth

Choose materials and type of formwork, taking into account the pressures, the assembly, removal and rotation of the formwork.

Set up formwork to ensure complete stability.





UNITS B

Cob building. Rammed earth building. Masonry building
(3 separate sub-units)

From the foundation or base,

- **raise** monolithic or masonry walls, load-bearing or not, straight or curved;
- build vaults, domes, staircases, heating devices, furniture;
- **build structural details**, openings and service;
- **prepare surfaces** to receive finishes.

Organize the site, including lifting, storage and protection of materials and structures.

UNIT R

Maintain, repair, renovate, restore earthen buildings and plasters

Diagnose and intervene on structures and earthen surfaces:

- major interventions or underpinning work,
- cleaning, recycling, repair, introducing new elements,
- maintenance and minor repairs,
- surface treatments.

UNIT E

Developing business activity

In order to **develop business building with earth**

- make earthen architecture an interesting choice in old and new building;
- make bills of quantities and costings to draw up quotes.

<http://pirate.earthbuilding.eu>

Note to the users familiar with the clay plaster units (created in 2007). The new units integrate some of the clay plaster units: M includes U1, E includes U6. U3 is linked to R.



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