

UNIT R Level 2  
Repair and conservation  
in earth building – clay plaster

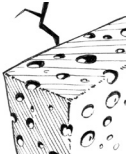
Learning outcomes  
Criteria and indicators

Licence: CC-BY 4.0 Learn●Earth, [ecvetearth.hypotheses.org](http://ecvetearth.hypotheses.org)

Revised edition: September 2015

First edition: Leonardo da Vinci Project, Lernpunkt Lehm 2007-2009





## Repair and conservation in earth building clay plaster

ECVET  
Unit R

Level 2

### Knowledge

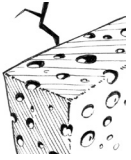
- Techniques for maintenance and touching up
- Common damage : powdery or sandy surface ; cracks ; stains ; spalling ; scratches and holes
- Causes of damage : plaster mix, application, construction, external factors
- Common repair techniques : closing cracks by floating and/or with use of new material ; removal of damaged area and replacing with new, if necessary adding reinforcing mesh or key
- Accurate touching up
- Conservation aspects of traditional clay plasters and backgrounds, including earthen walls
- Finished plaster quality to achieve the required standard for the particular conditions of use
- Options for final surface treatments and coatings onto clay plasters : fixatives, paints, plasters with other binders, tiles, ...
- External clay plaster and renders onto earthen walls
- Composition and application of clay slip, clay paint and washes
- Main differences between ecological paint and conventional paint
- Maintenance, repair and surface treatments:
  - Current legislative workplace requirements
  - Relevant codes of practice and current standards for quality of work and materials
  - Tools, machinery and equipment
  - The order of work
  - Safe and healthy working practices

### Skills

- Use maintenance techniques according to instructions
- Protect adjoining surfaces
- Close shrinkage cracks by floating or with new material
- Repair areas of localised damage with the repair mix provided
- Make joins with repair plaster as seamless as possible
- Demonstrate paint effects onto sample clay plaster boards
- Paint clay plaster with clay paints or washes
- Apply fixatives
  
- Set out materials
- Use the appropriate tools, machinery and equipment for maintenance, repair and surface treatments
- Organise the work place
- Comply with workplace safety requirements at all times

### Competence

- Under supervision make small repairs, apply clay paint, apply fixative
- Recognise the value of traditional and heritage plaster backgrounds and clay plasters
- Control the consistency and homogeneity of clay paint and fixative
- At each stage check for accuracy and ensure instructions are being followed



## Repair and conservation in earth building clay plaster

ECVET  
Unit R

Level 2

Criteria for the Evaluation of Skills

Criteria	Indicators
Preparation of repair	<ul style="list-style-type: none"> <li>• The preparation conforms to the instructions</li> <li>• The edges of the remaining plaster are cut at an angle and the depth of the repaired area is uniform</li> <li>• The cut edge has been sufficiently moistened</li> </ul>
Quality of the repaired surface	<ul style="list-style-type: none"> <li>• The surface is homogenous</li> <li>• The cracks are closed</li> <li>• The join between new and old plaster is seamless</li> </ul>
Quality of the Fixative	<ul style="list-style-type: none"> <li>• The solution is not lumpy</li> <li>• The dilution conforms to the instructions</li> </ul>
Workability of the Clay Paint	<ul style="list-style-type: none"> <li>• The consistency conforms to the instructions</li> </ul>
Quality of the painted or treated surface	<ul style="list-style-type: none"> <li>• Paint or fix is homogenous</li> </ul>

Ensure that standards of work and materials comply with relevant codes of practice and to current standards.

## Criteria for the assessment of the method of work (criteria of skills evaluation)

Unit R	Method of Work	Level 2
SUB-CRITERIA	INDICATOR	
Organisation	The examinee is able to: <ul style="list-style-type: none"> <li>locate and access tools, equipment and materials</li> <li>check the availability of building materials</li> <li>logically organise the work space and the order of tasks</li> </ul>	
Economy of materials and time	<ul style="list-style-type: none"> <li>Optimum use of materials and time - no wastage</li> </ul>	
Use of tools and machines	<ul style="list-style-type: none"> <li>Appropriate choice of tools and machines</li> <li>Machines used according to operating instructions</li> <li>Ergonomic handling and use of machines, tools, equipment and materials</li> <li>Skillful and careful handling and use of tools, machines, equipment and materials</li> </ul>	
Work place	<ul style="list-style-type: none"> <li>Tools and material are set out logically for maximum efficiency</li> <li>Tools and machines are cleaned and returned tidily to their correct place</li> <li>Surplus materials are properly collected and stored</li> </ul>	
Time	<ul style="list-style-type: none"> <li>The work is completed within the allocated time in accordance with the programme of work</li> </ul>	
Safety	Compliance with Construction site health & safety <ul style="list-style-type: none"> <li>The equipment is appropriate for purpose and has been risk-assessed</li> <li>All Protective safeguards are in place</li> <li>Erection of ladders and scaffolding according to regulations</li> </ul>	
Waste	<ul style="list-style-type: none"> <li>Waste is appropriately sorted, stored, recycled, removed and disposed of according to regulations</li> </ul>	
Communication	<ul style="list-style-type: none"> <li>Problems during the working process or any deviation from the specifications are reported</li> <li>The finished work is described / explained orally</li> <li>Progress and the various stages of work are discussed with the work team</li> <li>Instructions that are not understood are questioned</li> </ul>	