Pirate

Provide Instructions and Resources for Assessment and Training in Earthbuilding

2012-2015 Lifelong Learning Programme

Leonardo da Vinci DOI project (Development Of Innovation)

NEWSLETTER 3

July 2014

Between February 2013 and February 2014, six transnational PIRATE work group meetings took place in different places and on different topics.

The PIRATE project is more than half way through. Already a high proportion of the main work has been done: national and transnational panels of earth builders have defined units of learning outcomes for clay construction techniques. The units have been described with lists of knowledge, skills and competence, according to the ECVET principles. Moreover, we have dealt with assessment criteria for skills.
The 6 new units of learning outcomes are presented in the PIRATE leaflet and will of course be found at http://pirate.greenbuildingtraining.eu/public/.
This newsletter shows the process the project partners have gone through, since the project kick-off in November 2012, to achieve this result. In fact, between February 2013 and February 2014, six transnational PIRATE work group meetings took place in different places and on different topics.

Discover in the goals and achievements in the short reports below.

MONO 1 and **MONO 2** workgroup meeting

The MONO group works on the two structural earth techniques which use earth in a monolithic way. Material is placed into the wall mixed and ready but not already formed into a dry bricks or blocks, and mortar.

BRICK 1 and **BRICK 2** workgroup meeting

The BRICK workgroup covers those earth building techniques where bricks or blocks are made, then built by bricklayers, with or without mortar, to obtain walls, arches, vaults and domes.

SUPERV 1 and **SUPERV 2** workgroup meeting

The SUPERV workgroup focuses on the integration of earth training within higher education (EQF levels 5 and 6).

AVAILABLE IN OTHER LANGUAGES THAN ENGLISH

http://pirate.earthbuilding.eu

This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

Pirate
Provide Instructions and Resources for Assessment and Training in Earthbuilding

NEWSLETTER 3
July 2014

MONO 1 workgroup meeting

Venue : Dartington Hall, Totnes, Devon, UK
Date: 2-4 of February 2013
Organizer : EBUK (Partner 13)
Participating countries : France (CRAterre, ENSAG, AsTerre, Afpa), Germany (Lehmbauwerk, Misereor), UK (EBUK), Portugal (FCT-UNL, CdT), Serbia (Kuca Cuvarkuca)

What is MONO?

The two MONO techniques are rammed earth and cob, the MONO country groups all have significant cultural heritage in one or both techniques with new buildings made with these techniques.

Objectives

The first meeting of the MONO group to started the technical process of capturing, writing and sorting national group meetings results into Skills, Knowledge and Competence. The need to bring rammed earth and cob into a single outcome was discussed. It was hoped that a list of skills and knowledge, divided in 4 to 6 main categories (units of learning outcomes) would be agreed by the end of the meeting.

Main results (WP3)

Typical work steps were agrred, earth-specific issues, the important tasks and activities on cob and rammed earth building sites. Good quality national inputs gave a rather complete list. There are many common alities between cob and rammed earth. More discussion is needed on the difference between European Qualification Framework EQF level 3 and 4. Agreed to use “working English” as correct technical English is difficult for all partners to understand…

Issues discussed

What should be included at EQF levels 3 and 4 from national meetings? Country reports, feedback from partners national groups of experienced builders and experts.
Dissemination, the first newsletter and ideas about this first phase of partner meetings, were discussed. The internal internet Platform was discussed using a screen share with France.
The meeting was evaluated including pre-meeting information, travel and accommodation to organization, outcomes, working methods etc. Management templates for working were agreed.
P13's Becky Little gave a presentation on cob, a building technique used in UK and northern France.
There was emphasis on the Key Actors Directory, a dissemination tool to education, training, certifying bodies, funders, regulators and suppliers of the earth construction sector and the general public.

Decisions

Agreed to make level 4 lists to begin with, Level 3 just reduces Level 4. Undecided: whether to split rammed earth from cob, separate sheets for all or some of the units. This should become clearer in the redaction process.

Agreement on units of learning outcomes:
E - business
M - materials
F - formwork
B - making-building
R - repair-rehab

Pirate
Provide Instructions and Resources for Assessment and Training in Earthbuilding

NEWSLETTER 3
July 2014

MONO 2 workgroup meeting

Venue : Biblioteca Municipal Manuel da Fonseca, Santiago do Cacém, Portugal
Date: 21-23 of November 2013
Organizer : FCT University of Lisbon (Partner 15) + Association Centro da Terra (CdT)
Participating countries: France (CRAterre, ENSAG, AsTerre, Afpa), Germany (Lehmbauwerk, Misereor), UK (EBUK), Portugal (FCT-UNL, CdT), Serbia (Kuca Cuvarkuca)

Objectives

The big issues to be sorted at the second meeting of the MONO group were:
(1) validating the number of MONO Units;
(2) validating knowledge and skills of MONO Units of level 4;
(3) writing MONO Units for level 3;
(4) completing competence of MONO Units for levels 3 and 4;
(5) discussed and developed criteria and indicators for assessment from each partners national gathering;
(6) to inform everyone on interim report, templates, process, deadlines, dissemination, etc.

Issues discussed

How many parts will compose the B (building) unit to be decided in Overall 2 Meeting. Formwork must be a separate unit because it overlaps with the concrete sector.
Our Certificate of Achievement may have notes attached on assessment criteria and indicators undertaken for each unit assessed.
Protocol of certification - AFPA presented assessment methods of the Mason of Ancient Building Techniques Diploma to give some clues to the other partners.
Other issues included certification methodology, newsletter nr. 3 the Interim report and dissemination.
Finally there was evaluation of the meeting logistics and methods as part of our internal evaluation process.

Main results

The validation of the number of MONO units, we agreed on units: E - Market, M - Raw material preparation, F - Formwork, B - Monolithic wall and R – Repair and rehabilitation.
We also began the separation between levels 3 and 4 competences. Skills and knowledge are about the same, but additional weight was given to these in the different levels.
Discuss assessment criteria and indicators with German, French and Portuguese data collected. There are different criteria for skills assessments for cob and rammed earth in unit B.



Pirate
Provide Instructions and Resources for Assessment and Training in Earthbuilding

NEWSLETTER 3
July 2014

BRICK 1 workgroup meeting

Venue : Les Compagnons du Devoir, Toulouse, France
Date: 13-15 of March 2013
Organizer : Les Compagnons du Devoir du Tour de France (Partner 5)
Participating countries: France (CRAterre, AsTerre, afpa, LMDC-UPS) Germany (FAL, BSZ Leipziger Land, Misereor), Spain (ESTEPA), Slovakia (ArTUR), Czech Republic (SHS),

What is BRICK?

The BRICK workgroup deals with production and bricklaying of:
ADOBE - a moulded and sun-dried block
CEB - a compressed earth block
Extruded block - an industrial unfired brick from an extruded plastic mix.
Also included in this unit is the practice of mortaring stone blocks with clay mortar.
The country groups participating in the BRICK work group have a significant cultural heritage in adobe, and thus easily adopted the CEB or extruded block as "modern relatives" of the earth masonry family.

Objectives

The core of the first meeting of workgroup BRICK was to share the national meetings results about levels and units and to shape the units according to the different national and professional norms and experiences. To achieve a shared result, small transnational groups were formed.
It was expected to have a list of units, as well and a list of skills and knowledge at the end of the meeting.

Main results

Each country presened its own training system and the professional levels, qualification- based.
Each partner set out the name for different units of learning outcomes.
There was a lot of debate about expectations in EQF Level 3 and 4. Defining of brick masonry goes far beyond wall building: masons or bricklayers need to have a global perspective of plans prescription, structure, foundation, insulation, vaults curved structures, re–exposed elements, etc. Therefore some participants suggesed to dividing the activities of masonry into 2 units: simple and complex masonry.

We decided to focus particularly on Level 4 (a Level which includes the knowledge, skills and competences of Level 3). This meeting was useful to know every point of view and to make consensual decisions.

Agreement on unit heading:
B - Building
R - Repair
M - Material: preparing the mortar
P - Production of bricks
E - Business

Pirate
Provide Instructions and Resources for Assessment and Training in Earthbuilding

NEWSLETTER 3
July 2014

BRICK 2 workgroup meeting

Venue : Hotel Fortuna, Senec, SK
Date: 20-24 of January 2014
Organizer: ArTUR (Partner 16)
Participating countries: France (CRAterre, AsTerre, Compagnons), Germany (FAL, BSZ Leipziger Land, BiWeNa), Spain (ESTEPA), Slovakia (ArTUR), Czech Republic (SHS)

Objectives

To validate some units of learning outcomes and lists of knowledge, skills, competence.
There was presentations about how the different countries prepared input on Criteria and Indicators. Discussion to establish common criteria and indicators for skills assessment.

Main results and decisions

Concerning bricklaying, the group agreed about 5 units: M, B, P, R, E.

- **Establishing Units of learning outcomes for BRICK**

In work groups we checked and completed learning outcomes (knowledge, skills, competence) for each unit and the whole group went through all of them, except Unit R, which is left to be finished. The final working results were four Units of Learning Outcomes.

- **Criteria for each unit**

We worked on criteria for Level 4, for Assessment of Skills for the 4 units criteria for Level 3.

- **Validation, testing**

We will have to validate what we have written. A Test meeting in a real assessment situation is planned for Mono in June 2014, for Brick by January 2015. We need to test early enough to implement any changes which may arise. Assessment should be done with trainees who are used to exams. Some BRICK WG members were invited to the MONO Test in June.

Issues discussed

Most discussion was about:

- **Should we exclude Extruded bricks from P- Brick production?**

After discussion we left it as “Adobe – CEB – Extruded brick”, because we have to think about different jobs within earth building, not only craftsmen.

- **Should vaults and domes be included in B - Earth brick masonry?**

Vaults and domes may be a voluntary sub-unit, or a different unit, or a core part of unit B Earth brick masonry. In Level 3, domes and vaults and columns are always under supervision, in Level 4 they should be under supervision of higher levels (5 or 6). We have not come to a conclusion.

- **Should the content of R/U3 include renovation, retrofitting? How to call this unit properly?**

Unit R – Repair (or Renovation) was prepared by a small group, but has not been finished within the plenary discussion. Unit E has not been discussed for the moment.
Other topics were:
Evaluation of the meeting BRICK 2, Coming events, Mid- Term meeting in Spain, Dissemination plan



Pirate
Provide Instructions and Resources for Assessment and Training in Earthbuilding

NEWSLETTER 3
July 2014

SUPERV 1 workgroup meeting

Venue: Chamber of crafts, Lübeck, Germany
Date: 17-20 of April 2013
Organizer: LUAS (Partner 12)
Participating countries: France ((Craterre, LMDC/UPS), Germany (DVL, LUAS, Misereor, BiWeNa), UK (EBUK), Portugal (FCT-UNL, CdT), Serbia (Kuca Cuvarkuca)

What is SUPERV?

The SUPERV workgroup focuses on the integration of earth training in higher education (EQF levels 5 and 6). Unlike the MONO and BRICK work groups, all earth techniques are considered. The SUPERV group started with an assessment of the current situation in the different countries regarding earth training in higher education, before developing learning outcomes (skills, knowledge and competence) for levels 5 and 6 and thinking about the processes to assess and validate those learning outcomes.

Objectives

The meeting aimed t assess the situation in each country regarding qualifications and jobs of EQF levels 5 and 6 in the construction sector and the existing earth training initiatives at higher educational level.

Issues discussed

A long time was spent examining and reviewing the existing units of learning outcomes for "construction site practical manager" (CSPM, European project "Formation Credit Points" PP 146 294/2005, http://www.q-zwh.de/creditpoints/index.php?id=1&L=1) to see whether they apply to earth building sites.
Other issues discussed during this meeting:
What is the distinction (qualifications, functions, limit of responsibility and competence) between level 5, 6 and 7 construction professions ?
What is our strategy which is the better option?: create specific earth construction courses or integrate earth into current building teaching ? Is it better to train business and management to earth builders or to train efficient building companies to use earth?

Main results

Some significant results were obtained during this meeting:
- the group worked through the 8 existing CSPM units, completing the points with earth specific issues
- work group agreed 6 chronological competence blocs for earth building, including the CSPM units (studies before design, conception, environmental quality control, laboratory testing, building site management, organization-follow up, safety-environment rules, diagnostics-maintenance-repair),
- another work group produced a list of professions involved in the building process, with reference to the UK, with some translations to German.

Decisions

We have decided that units described in the CSPM document were too detailed (too many units) and to create a specific unit matrix by grouping some of CSPM units and developing some others (for example for "Study").
This new matrix is composed of eight units.

Pirate
Provide Instructions and Resources for Assessment and Training in Earthbuilding

NEWSLETTER 3
July 2014

SUPERV 2 workgroup meeting

Venue: LMDC laboratory, Toulouse university, France
Date: 18-20 of February 2014
Organizer: Paul Sabatier University (P6)
Participating countries: France (CRAterre, AsTerre, LMDC), Germany (LUAS, Misereor), UK (EBUK), Portugal (FCT-UNL, CdT)

Work done before the meeting

The first draft of learning outcomes for 8 units. The learning outcomes listed in the 8 units come from
- the competence standards of the French "national teaching program"(PPN) for civil engineering and sustainable construction,
- the eight CSPM units,
- the learning outcomes listed in the French "ROME"
(Répertoire Opérationel des Métiers et des Emplois = professions and jobs database of the French Job centre)
- some learning outcomes described in certain qualification of the French governments professional certificates database RNCP (www.rncp.cncp.gouv.fr).

Objectives

The main objective of SUPERV2 was to add learning outcomes specific to earth construction into these 8 units. Moreover, this meeting aimed at starting a discussion/creating assessment criteria for levels 5 and 6. Further objectives were the presentation of the survey on earth content in higher education teaching programs and work on the glossary of building professions.

Issues discussed

During SUPERV2, the units of learning outcomes were analysed and completely revised: their translation from French to English was finished and their relevance for earth building was also discussed. Missing items relevant to earth construction have been added. At this stage, no distinction between knowledge, skills and competence were made for the learning outcomes.

Results

At the end of the meeting, the matrix listing the learning outcomes for earth construction level 5 was still composed of 8 units. But the working group added to each item the possible correspondence to one of the 5 units used in the matrix developed by the MONO and BRICK workgroups
(E-business, M-materials, F-formwork, B-building, R-repair-rehab). After much discussion it was agreed to convert the matrix developed for level 5 (8 units) into the same 5 unit model of the other workgroups. The next steps for SUPERV will consist in adding complementary data to distinguish knowledge, skills and competences, using the work already done in MONO and BRICK groups.

Pirate

Provide Instructions and Resources for Assessment and Training in Earthbuilding

NEWSLETTER 3

July 2014

UPCOMING EVENTS

Next PIRATE Work group meeting 2015 - BRICK Test in Leipzig, Germany: 26-27 of February 2015

PIRATE final plenary meeting 2015 - OVERALL 3 in Verden, Germany: 15-19 of June 2015

Other European clay events 2014:

16-18 of October 2014 in Strasbourg, France: 5th national earth builders gathering with 4 round tables
www.asterre.org/assises

November 2014, Portugal: rammed earth repair course with assessment (unit MONO R), organized by Centro da Terra and ANAB

6-8 of November 2014 in Leipzig, Germany: European Trade Fair for Conservation, Restoration and Old Building Renovation:
FAL e.V. and BSZ Leipziger Land performing earth building techniques at Halle 2, Lehm 17.
European School of Earth Building presenting the new German ECVET Earth Building Contact Point.
Ask for free ticket vouchers at earthbuilding@fal-ev.de.

„Denkmal" Europäische Messe für Denkmalpflege, Restaurierung und Altbaumodernisierung.
Das Partnerland der denkmal ist dieses Jahr Norwegen. Die „denkmal" mit der Sondermesse Lehm bietet auch in diesem Jahr eine Plattform für den fachlichen Austausch rund um das Thema Sanierung und Restaurierung. Das vielfältige Angebot ermöglicht bei Fachtagungen, Workshops und Diskussionen die neuesten Entwicklungen in der Branche zu entdecken und sich mit anderen Interessierten auszutauschen.
Sehr gern sendet der FAL e.V. Ihnen Eintrittskarten-Gutscheine zu. Nachfrage unter earthbuilding@fal-ev.de.
Am Stand des FAL e.V., Halle 2, Lehm 17, finden Sie Lehmbauvorführung des FAL e.V. und des BSZ Leipziger Land.
Die Europäische Bildungsstätte für Lehmbau stellt sich mit ihrer neuen ECVET Lehmbau Kontaktstelle vor.

7-10 of December 2014 in Helsinki: final meeting of the Northern Clay Plaster Project NCPP, with official presentations on Tuesday 9th

16-19 of December 2014 in Funchal, Madeira, PT: 40th edition of the IAHS World Congress, on the theme "Sustainable Housing Construction"-> Earthen Housing Construction Thematic Session with a presentation about PIRATE
www.iahs2014.uc.pt/projectos/iahs2014/index.php?module=sec&id=304

For info about partners activities and courses:

P1	CRAterre	www.craterre.org
P2	AE&CC	http://craterre.hypotheses.org/ https://cartoterra.net
P3	AsTerre	www.asterre.org https://fr-fr.facebook.com/asterre
P4	AFPA St-Etienne	www.rhone-alpes.afpa.fr
P5	Compagnons du devoir	www.compagnons-du-devoir.com
P6	UPS-LMDC	www-lmdc.insa-toulouse.fr
P7	FAL e.V.	www.earthbuilding.eu, www.fal-ev.de
P8	Dachverband Lehm	www.dachverband-lehm.de
P9	Berufliches Schulzentrum Leipzig	www.bsz-leipziger-land.de
P10	LehmBauWerk	www.lehmbauwerk.de
P12	Fachhochschule Lübeck	www.fh-luebeck.de
P13	EBUK	www.ebuk.uk.com
P14	ESTEPA	estepa1@gmail.com
P15	FCT-UNL	www.fct.unl.pt/en
P16	ArTUR	http://centrumartur.blogspot.sk www.ozartur.sk
P17	Hlina SHS	www.hlina.info
P18	Kuca Cuvarkuca	www.kucacuvarkuca.com
P19	BiWeNa	www.biwena.de

PIRATE aims to create learning outcomes units (http://ec.europa.eu/education/lifelong-learning-policy/doc/eqf/note4_en.pdf), which define skills, knowledge and competence a skilled or professional in the construction sector needs to build earthen walls.
Each unit can be assessed at different levels according to the type of job and can be linked with credit points. Three work groups (WG) are developing the matrix of ECVET units: Two concentrate on craftspeople of European qualification levels 3 (mason) and 4 (foreman), the third focuses on levels 5 (clerk of works) and 6 (site manager).