



# The Whole Village Project

An integrated approach to cultural heritage conservation in  
Saxon Transylvania



## ACTIVITY 2: THE TRAINING PROGRAMME

**Goal:** Seven training sessions to instruct 45 local craftsmen in new in traditional building techniques, as well as to help them learn basic business skills.

**Achieved:** Nine conservation training sessions, plus one business training day. 83 trainees in total.

### 1. General training in traditional building skills (stone masonry and wood)

**Dates:** 01 – 10 July 2006

**Trainers:** Sebastian Bethge, Christoph Nieberle, Timo Burmester (Corona Association)

**Location:** Apold, Mures County

#### **Purpose of activity:**

The workshop initiated by co-organiser Corona Association and was intended to be the starting event for the upcoming months of training and restoration. It was organised in the way of a bi-national knowledge exchange between German stonemasons and carpenters with local Romanian craftsmen.



#### **Names of people trained:**

1. Sarah Achilles, Apold, Romania
2. Eduard Bruckner, Cluj Napoca, Romania
3. Emanuel Bruckner, Iasi, Romania
4. Sebastian Köhler, Apold, Romania
5. Marius Mailat, Saes, Romania
6. Petruca Mailat, Saes, Romania
7. Christina Mettler, Apold, Romania
8. Christian Stahlhut, Leipzig, Germany
9. Christian Ticusan, Apold, Romania
10. Eusebi Ticusan, Apold, Romania



**Wood:** evaluation of condition of wooden constructions (mainly in roofs), replacement of supporting beams and crossbars without retiling the entire roof as well in case of retiling.

**Stone:** Reparation and building of stone walls – dry walls as well as mortared walls, identification of fungi et al.

The training was effectuated in 2 groups with 4-6 persons each. Objects of intervention were white tower and the sacristy for wood works and the outside of the sacristy and the outer circle wall for stone works. The workshop was not meant to finish actually pieces of work but to introduce techniques. The actual projects were finished then during the upcoming months of work.

The first weekend of the workshop the group was taken to an excursion to the region (Hosman and Daia).



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Culture 2000

## 2. Making handmade bricks and tiles: a lost art re-learnt in Viscri

**Dates:** 08 – 15 July 2006

**Trainer:** Colin Richards, conservation officer,  
South Shropshire District Council, UK

**Location:** Viscri, Bunesti Commune (Brasov  
County) – a UNESCO World Heritage site

**Purpose of activity:**

- to train a team of local people in making traditional handmade bricks and tiles, which are used in restoration projects on Saxon buildings;
- to supervise the completion of a traditional wood-burning brick and tile kiln in the village of Viscri and to instigate production.

**Names of people trained:**

1. Lusca Vasile
2. Lusca Gheorghe
3. Lusca Maria
4. Boholtean Ioan (sen)
5. Boholtean Ioan (jun)
6. Boholtean Verginea
7. Boholtean  
Constantin
8. Ghilea Victor
9. Gabor Matei
10. Purghele Traian





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The Saxons constructed their buildings from materials readily available in the immediate area namely timber, river washed stone, and bricks and tiles fired from local clay. Limestone was burnt to provide a mortar and render for masonry, and to afford protection to structures, which were exposed to extremes of heat and cold between summer and winter. Such an aggressive climate demanded a regular maintenance cycle to avoid water penetration of vulnerable building elements. The Saxons organised their working lives to include repair and upkeep of their property and ensured continued survival of ancient fabric over many hundreds of years.

Unfortunately, the four decades of Communist dictatorship broke this traditional cycle, causing these vital skills to be lost.

After years of struggling to find a good supply of local, handmade bricks and tiles, the MET decided to build a brick and tile kiln in the Saxon villages, which would provide adequate materials not only for its own restoration projects, but also for conservation architects and builders throughout Transylvania. In the past, many Saxon villages had their own such kilns, so the MET requested the help of a UK specialist, Mr Colin Richards, to re-instate one of the old Saxon kilns in the village of Viscri, a UNESCO World Heritage site.



In May 2006, HRH The Prince of Wales himself visited the site and conversed with Colin about the kiln plans, and in July 10 men and women from the village started their training in making old-fashioned clay tiles. The first training session (as well as the one in October 2006) aimed not only to instruct participants in this forgotten art, but also to help local people set up small businesses in sectors related to heritage conservation and earn a living in their own village.



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## 3. Conservation stone carving, advanced

**Dates:** 13 – 20 August 2006

**Trainer:** Henry Rumbold, master stonemason and conservation expert, Historic Property Restoration Ltd, UK

**Location:** Malancrav, Laslea commune, Sibiu county

**Purpose of activity:**

- to train local craftsmen in high-level manual stone masonry and stone carving techniques.

**Names of people trained:**

1. Ernst Linzing
2. Schirkonger Roland
3. Onetiu Marcu
4. Schappes Liebhard

Stone dressing is not a very common skill in Transylvania, where only the noble palaces and manor houses could afford large, beautifully cut stone elements and ornaments. However, in the Sibiu – Sighisoara area there are several important historic buildings (such as the Bethlen Castle in Cris and the Apafy Manor House in Malancrav) where high-level conservation stone dressing skills are vital if we are to restore these beautiful masterpieces to their original glory.



Bethlen's Cris castle and stone carved family crest.



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The training week took part at the Apafy Manor House in Malancrav, which is being carefully restored by the Mihai Eminescu Trust. There the tutor and the trainees worked together to repair or replace the old sandstone steps on the south-facing side.



The instruction included health and safety issues, making templates, setting out ramp and twist coping, squaring stones and stone dressing, as well as a more general presentation of the Mihai Eminescu Trust's conservation principles and techniques.





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## 4. Interior and exterior mural painting and frescoes

**Dates:** 22 – 27 September 2006

**Trainer:** Cecily Brunner, decorative artist and scenic painter, UK

Mary Gatacre, decorative artist, Switzerland

**Location:** Malancrav, Laslea commune, Sibiu county

### **Purpose of activity:**

- to train local craftsmen in the detailed skill of mural painting and frescoes in Transylvanian houses.

### **Names of people trained:**

1. Stela Onut
2. Georgica Braga
3. Robert Farczadi
4. Sorin Botezan
5. Anna B. Tomczac
6. Schirkonger Roland
7. Andrea Rost





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The work consisted of painting a frieze, and two ceiling roses in the library of the Malancrav Manor House, and mixing colours for the other rooms downstairs. The colours and designs were taken from what was originally painted there, as shown in the two archive photographs we managed to recover.

The training started by cutting stencils and identifying local paints and materials and mixing various substances and colours to achieve the best result. Lime putty was used as a base with pigments added, which is how frescoes would have been painted centuries ago. This has a very effective finish, but is more time consuming to both mix and paint. Drying time is also delayed and humidity can affect this.

The local craftsmen mixed large vats of the lime paint with which they were painting the walls, so the tutor used this as a base for the colours in the other rooms. The end result, once it had been painted on the existing plaster was very pleasing. In the library, the design went straight onto a very pretty blue/grey colour, which the local painters had already



The students were very keen to participate and a few of them came up with some interesting ideas of their own with regards to what one could mix with the pigments. Then the group traced the design for the roses on to the ceiling, using similar colours to the frieze. This was all done standing on scaffolding. The work was completed within the time allocated, seven days later.



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## 5. Lime mortar and lime plaster

**Dates:** 20 – 24 September 2006

**Trainer:** Anthony Goode, lime practitioner and SPAB trainer, UK

**Location:** Bunesti and Saschiz, Brasov county

**Purpose of activity:**

- to train local craftsmen in the basic skills of working with lime mortar and lime plaster.

**Names of people trained:**

1. Poncu Ovidiu
2. Panait Marius
3. Pughel Traian
4. Pughel Lucian
5. Molnar Ioan
6. Vladescu Laurentiu
7. Pavel Andrei
8. Sandru Ioan
9. Mognea Sorin
10. Nemeth Catalin
11. Zaharia Vasile



The trainees learnt about the lime cycle, the basic properties of lime, how it compares with cement particularly when used on historic buildings made of natural materials, and the different recipes and mix ratios for lime mortar, including the use of additives such as brick dust or animal hair, by working on two restoration projects: a collapsed buttress on the fortification wall of the Bunesti Saxon church,



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which was consolidated and partly rebuilt with river stones bound together by lime mortar, and the plaster repairs on the Saschiz Town Hall building, with its specific decorations.

In the first case, the skills learnt and refined were those of rebuilding areas of stonework using lime mortar, as well as pointing and preparing the masonry for plaster.



In the second instance, the wall was plastered and lined out to imitate large ashlar stones, with flat, fine finished plasterwork incised with precise, sharp vertical and horizontal lines. This needed particular attention to detail and fine plaster moulding skills.





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## 6. Protecting heritage crafts

**Dates:** 28 September - 9 October 2006

**Trainers:** Sebastian Bethge, Tom Hageus (Corona Association)

**Location:** Apold, Mures County

### **Purpose of activity:**

Introduction by Corona Association, co-organiser, to monument protection of Saxon-Transylvanian heritage (masonry and carpentry techniques)

### **Names of people trained:**

1. Anca Aftimescu, Vaslui, Romania
2. Elena Aftimescu-Deleanu, Vaslui, Romania
3. Micha Burchardt, Potsdam, Germany
4. Martin Fuchs, Potsdam, Germany
5. Dominique Langhans, Heidelberg, Germany
6. Claudia Meinel, Potsdam, Germany
7. Matthias Münzel, Potsdam, Germany
8. Daniela Rieger, Penig, Germany
9. Ute Simon, Potsdam, Germany
10. Bianca Solonariu, Botosani, Romania
11. Martin Wämer, Shönefeld, Germany



Participants were from different educational backgrounds and levels. Condition for participation in the workshop was a proven strong interest in cultural heritage. The workshop consisted of a two-fold programme with (1) one part of discovery of the German-Saxon heritage (including excursions to Sibiu and Sighisoara, and the villages of Daia and Saes) and (2) an activity part: participation in restoration works:

- Participation in restoration/renewal of a dry wall on the church site (length: 10m, height: 0,6m)
- Participation in finalisation of the sacristy
- Participation in reparation of the windows of the Parrish house.





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## 7. Second brick and tile kiln training in Viscri – drying, firing and storing

**Dates:** 20 - 26 October 2006

**Trainers:** Colin Richards, conservation officer, South Shropshire District Council, UK

Robert Demaus, foremost timber diagnostics engineer, UK

Noel Knight, consultant building surveyor, UK

**Location:** Viscri, Bunesti Commune (Brasov County) – a UNESCO World Heritage site

### **Purpose of activity:**

- to train the local team in the process of drying bricks and tiles in a specially-made shed;
- to teach them how to stack the bricks and tiles inside the kiln;
- to teach them how to light and manage the 7-day continuous firing process;
- to analyse the quality of the resulting bricks and tiles and learn from mistakes.

### **Names of people trained:**

1. Lusca Vasile
2. Lusca Gheorghe
3. Lusca Maria
4. Boholtean Ioan (sen)
5. Boholtean Ioan (jun)
6. Boholtean Verginea
7. Boholtean Constantin
8. Pughel Traian



First, the “green” (newly made) bricks and tiles are laid on drying racks to harden up and evaporate moisture prior to loading in the kiln. With tiles it is critical to avoid a rapid drying out as this will



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create structural tension across the material and lead to cracking. The drying shed is thus timber clad with very narrow gaps between the boards to create minimal air movement.



The kiln is constructed on the lowest part of the site with a loading door facing the drying shed. It is an open chamber whose dimensions are 5 metres long, 3 metres wide and 3 metres high. It is constructed of handmade bricks with a clay mortar to minimise movement and cracking during the firing process. A shelter has been constructed over the kiln to protect it from the elements particularly during firing when water penetration would ruin the contents.





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Three fire holes are located on either side and fires are alternated every 24 hours with the opposite side then temporarily blocked with dry bricks and sealed with clay. This process allows for a gentle and even build up of heat during the firing period. Within the kiln the first vertical metre close to the fires is stacked with bricks set approximately a finger width apart.

Fire tunnels are created to the same dimension as the fire surrounds on the kiln and these continue through the stack. The remainder of the kiln volume is either filled with bricks or tiles depending on need up to some 2.7 metres in height. Two layers of fired bricks are then laid on top.



For some two days gentle fires gradually warm the kiln and contents until all residual moisture is driven off. At this point a layer of soil is placed over two thirds of the area of fired bricks and the heat intensified. The one-third open area is alternated from side to side opposite the side being fired to exhaust the fire and draw the heat through all of the stack. This process continues day and night for a further four days until the last 48 hours when the entire stack is covered in soil apart from approximately 300 mm squares in each corner. This final heat soak should result in an even firing of the kiln, which at the end of six to seven days should be 950-1000 degrees centigrade.

The kiln is allowed to cool slowly for some 4-5 days after which the contents may be unloaded and distributed for use. The kiln accommodates 3000 bricks and 12000 tiles in a mixed firing.



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## 8. Basic conservation principles training for potential leaders

**Dates:** 14 November 2006, 9 January 2007, 25 January 2007, 14 – 15 May 2007, 15 June 2007

**Trainer:** Jan Huelsemann, conservation architect and carpenter, Germany

Caroline Fernolend, director, MET

Luminita Holban, project manager, MET

**Locations:** Sighisoara, Richis, Malancrav, Cata, Nemsă

### **Purpose of activity:**

- to communicate basic principles and techniques of historic building conservation, as professed by The Mihai Eminescu Trust (see attached conservation principles).

### **Names of people trained:**

1. Robert Farczadi
2. Stefan Balici
3. Ioan Suci
4. Andrea Rost
5. Codruta Vranceanu
6. Willy Untch
7. Stefan Isopel (Mayor, Cata commune)
8. Eugen Roba (Mayor, Mosna commune)
9. Pinte Ilie Avram (Mayor, Valea Viilor commune)
10. Urian Emil Marius (Mayor, Seica Mica commune)
11. Popa Sorin Vasile (Mayor, Micasasa commune)





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In a series of one-day meetings, courses and debates, Jan Huelsemann, alongside the MET's project leaders – Caroline Fernolend and Luminita Holban – tried to impart the Trust's conservation principles and expertise to existing and potential future local leaders.

The attached Power Point presentations illustrate the content of these short courses, while below is the list of conservation principles promoted by the MET.

## MIHAI EMINESCU TRUST CONSERVATION PHILOSOPHY

1. **REPAIR NOT RESTORATION.** It is the fabric, not the perceived scheme that is important, therefore patch and repair of existing will always take precedence over renewal, thus conserving as is, rather than restoring as was.
2. **MINIMUM INTERVENTION.** Any repair project will aim to conserve the maximum historic fabric, surface finish and patina. This may require alternative methods of strengthening the structure, in order to retain plasters etc. (e.g. the use of steel shoes to replace rotten joist ends, rather than renewing whole joists).
3. **RESPECT FOR EVOLUTION.** The last intact 'significant' scheme will always be conserved, rather than stripping back layers and disregarding the later history of the building. In terms of overlaid decorative schemes, all the subsequent schemes will thus be preserved behind the latest scheme.
4. **HIGH QUALITY CRAFTSMANSHIP.** Only craftsmen with appropriate skills will be employed. They will have knowledge of the traditional techniques, as well as experience of repair methods. They will be vetted by submission of previous projects, and reference from past employers.
5. **REVERSIBLE INTERVENTION.** Where new additions or treatments are necessary, these should be designed in such a way as to allow the to be removed in the future.
6. **HONEST AND APPROPRIATE REPAIR.** Repairs should be exercised in a manner that reflects the quality of the existing work, in the spirit of the original craftsman, but in a way that is not overly self conscious. Repairs should cause neither 'confusion to the scholar', not distress the ordinary man'. E.g. plasters will not be matched exactly, thus allowing them to be analysed as a repair scheme in the future, with a lime wash finish to unify the façade.
7. **ONGOING MAINTENANCE.** Any new work will take account of future maintenance requirements, and maintenance schedules will be put in place.
8. **RECORDS AND ARCHIVE.** All buildings will be adequately recorded before work proceeds and details of all works will be added to the record.



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## 9. Conservation carpentry and traditional joinery

**Dates:** 12 – 15 March 2007

**Trainer:** Jan Huelsemann, conservation architect and carpenter, Germany

**Location:** Viscri, Bunesti Commune (Brasov County) – a UNESCO World Heritage site

**Purpose of activity:**

- to train local carpenters and craftsmen in advanced traditional carpentry and joinery.

**Names of people trained:**

1. Chereches Aurel
2. Zaharia Vasile
3. Vrinceanu Vasile
4. Cosorean Florin
5. Purghel Traian
6. Molnar Ioan
7. Boholtean Ioan
8. Panait Marius
9. Schirkonyer Roland
10. Pintea Cristian
11. Nemeth Ioan
12. Vladescu Laurentiu





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The two main goals of the training session were: to think about and identify the stresses in a timber construction member and with this knowledge to develop a fitting joint; to work exactly and to make correct and fitting joints using only hand tools.

The workshop started with a short theoretical introduction by Jan Huelsemann, aided by a few illustrations and written materials from Romanian and international experts. Then the tutor proposed a theoretical exercise for finding the possible alternatives of joining a wooden fence with a massive oak gate, as well as for building a roof structure with multiple weight forces (building weight, functional weight, wind pressure, snow weight, bending forces etc.) He stressed the importance of properly thinking out a carpentry project in advance of actually starting work.



Practical work took place on the gate of house number 63 in Viscri. First adequate timber was selected for each part, then Jan presented the various choices of joints that can be achieved with hand tools. Then actual carpentry work started. A horizontal interlocking joint was produced by the end of the course. According to our tutor, the main challenge for participants was not the theoretical or technical skill, but the patience and attention to detail required to achieve conservation-standard joinery.





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## 10. Practical small business and accounting training

**Dates:** 25 May 2007

**Trainer:** Judy Collins, account and financial consultant, UK

Jan Huelsemann, architect, Germany

**Location:** Sighisoara

### **Purpose of activity:**

- To teach local self-employed craftsmen and village inhabitants basic business management, reporting and accounting skills, for the purpose of stimulating small business development in the villages.
- To help local craftsmen make accurate estimations of building projects.

### **Names of people trained:**

1. Carmen Rat
2. Vrinceanu Vasile
3. Purghel Traian
4. Andrea Rost
5. Ernst Linzing
6. Romulus Harbada
7. Gerhild Dootz
8. Ioan Suciu



Participants learnt about giving estimates for their work, negotiating and signing contracts, filling in invoices and tax statements, paying insurance, making a revenue and expense budget, recording and reporting expenses.