

BUILDING CONSERVATION MASTERCLASSES

MORTARS FOR REPAIR AND CONSERVATION

B3D08203

12-15 NOVEMBER 2018 (3 day course)

A detailed study of traditional lime mortars, the course provides practical experience on the Ruinette and discussion of materials and methods in both the workshop and lecture room contexts. The course includes a chronology of historic mortars, survey and analysis of mortars, and the recognition and diagnosis of typical failures. Appropriate mortars for a range of masonry conditions, exposures and durabilities are described and demonstrated. Delegates gain practical experience of repointing and mortar repairs using the Ruinette. Various aspects of mortar repair work are considered and demonstrated in the workshop, including suitable tools, mortar design, aggregates, pozzolans and other additives, finishing and curing of repairs. Lecture sessions cover the related topics of lime classification, survey and specification.

Please remember to bring work clothes/overalls and shoes for practical sessions. A torch and umbrella may be useful on the short walk to the Auditorium and Ruinette.

Course Leader: Catherine Woolfitt, archaeologist and conservator working in private practice and Subject Leader for the Building Conservation Masterclasses

Principal Tutor: Colin Burns, Master Mason and former Senior Training Officer with English Heritage

Tutors: Graham Abrey, Building Surveyor and Managing Director of Ingram Consultancy Limited Consultancy

Duncan Williams, Flint Mason at Knepp Castle in West Sussex.

All students on this course will receive a copy of *English Heritage Practical Building Conservation: Mortars, Renders and Plasters*.

Recommended Reading:

English Heritage Practical Building Conservation: Mortars, Renders and Plasters, 2012, Ashgate Publishing.

OUTLINE PROGRAMME

Day 1	Monday
16.00-18.00	Register at Reception Desk
19.00	Dinner
Evening	Lecture. Scope and compass of course
Day 2	Tuesday
Morning	Introduction to Workshop. Practical arrangements; Health and safety issues; description of the Ruinette, its history and role in the course
	Lecture. Introduction to building limes and lime classification; traditional lime burning – the lime cycle; outline history of development of lime mortar technology; non-hydraulic or high calcium limes and their properties; recognition of common historic mortar types. Why mortars and plasters fail; good and bad practice; the role of mortar analysis, study of samples, recognition and identification of failures
	Workshop lecture and demonstration. Introduction to historic mortar materials – a range of hand samples, pozzolans, aggregates, porous particulates. Slaking of non-hydraulic lime; selection and grading of aggregates; preparation of non-hydraulic lime-based roughages; demonstration of hot lime mortar preparation

Afternoon	Demonstration. Repointing. Introduction to appropriate tools for remedial work and investigation. Demonstration of cutting out and preparing defective joints for repointing; correct procedures for cleaning, pre-wetting, mortar application and finishing and curing of mortar joint Lecture. Lime putty comparison (freshly slaked vs mature lime putty); small scale lime burning Practical work. Repointing. Completion of cutting out, preparing and filling joints
Day 3	Wednesday
Morning	Demonstration and practical work. Repointing. Demonstration of joint finishing methods including tamping and washing. Completion of joint finishes and review of work Lecture. The role and properties of hydraulic limes: preparation and use of hydraulic limes, mixing and curing; lime standards Practical work. Preparing hydraulic lime based mortar; selection and mixing of aggregates; use of pan mixer vs rotary mixer; the use of lime putty as plasticiser: placing and curing Demonstration. Mortar analysis – basic disaggregation method; advantages and disadvantages; other available methods
Afternoon	Practical work. Mortar repair to stone and brick. Mortar design – selection of aggregates to match stone and brick; preparation of mortars for repair work Demonstration and practical. Mortar repair to stone and brick. Demonstration, followed by: cutting out and preparing stone or brick to receive mortar repair; reinforcement of mortar repairs; treatment of adjacent joints; mortar placement
Day 4	Thursday
Morning	Practical work. Mortar repair to stone and brick. Finishing of mortar repairs; surface modelling; forming mouldings Lecture. Mortar design for varying conditions and exposures; typical defects and remedial work to stonemasonry and brickwork Practical work. Mortar repair to stone and brick. Final finishing and review of work
Afternoon	Translation of activities into good specification; various elements of specification; summing up, questions and conclusions.
15.30	Issue of certificates and depart.

Non-residential course fee £706

Fully inclusive residential course fee:

Standard room with private bathroom facilities £961

Superior room with private bathroom facilities £1,027

HOW TO BOOK

Please complete one booking form, or copy of form, per person per course and enclose a deposit for each course booked. On receipt of your booking, we will send all the further details you will need for your visit, including the course details and your final payment slip. Travel instructions will be sent to all students.

For further information about the course, please contact the Course Organiser: +44 (0)1243 818219 or cpd@westdean.org.uk

For further information about booking, please telephone the Bookings Office: +44 (0)1243 818300.

Website: www.westdean.org.uk