

**BUILDING CONSERVATION MASTERCLASSES**  
**CONSERVATION AND REPAIR OF STONE MASONRY**  
BC3D232 25-28 SEPTEMBER 2017 (3 day course)

This course provides a comprehensive study of building and decorative stone from its formation and extraction through to its repair and maintenance in the building context. The programme includes basic geology of building and decorative stone; a detailed description of decay mechanisms of limestone, sandstones, marble, slate and granite; traditional construction methods; modes of failure; large and small scale repair options; cleaning methods, surface treatment and remedial work; specification and costing.

The teaching is divided between illustrated lectures and practical instruction, making use of the Ruinette, the purpose-built structure incorporating many of the faults found in historic masonry, which enables students to practice repair and remedial techniques. These include cutting out, repairing in stone and mortar, raking out joints and repointing, preparation and placing of mortars. Instruction is provided in some basic laboratory techniques, including recognition of stone samples and analysis of mortars.

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

Teaching Team:

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

Principal Tutor: Colin Burns, Master Mason and consultant in the conservation and repair of historic buildings and is the former Senior Training Officer at English Heritage

Tom Beattie runs a stone conservation company in Wiltshire

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: Stone*.**

Recommended Reading:

*English Heritage Practical Building Conservation: Stone*, 2012, Ashgate Publishing

Ashurst J and Dimes F, *The Conservation of Building and Decorative Stone*, 1998

*Practical Building Conservation: English Heritage Technical Handbooks* – (a) Mortars, Renders and Plasters, (b) Stone, (c) Earth, Brick and Terracotta, 2012-2013

Hill P and David J, *Practical Stone Masonry*, 1995  
Clifton Taylor A, *The Pattern of English Building*, 1972.

**OUTLINE PROGRAMME**

Day 1 Monday

16.00-18.00 Register at Reception Desk

19.00 Dinner

Evening Lecture. Introduction to course: the geology, characteristics and use of some common building and decorative stones with reference to buildings, the development of stone detailing and hand samples.

Day 2 Tuesday

Morning Lecture. How and why stones decay: illustrations and diagnosis of the cause of problems encountered by granite, limestones and sandstones, alabaster, marble and slate: durability factors.

	Lecture and demonstration. Conversion of rocks to dimension stones; use of hand tools; working a stone face; tooled finishes.
Afternoon	Lecture. Repairing stone buildings; survey; stone replacement and piecing in; mortar and tile repair; repair of joints. Lecture and demonstrations. Mortar repairs for stone; design, mixing and curing, preparation and supports. Exercise. Cutting out and repairing stone with mortar.
Day 3	Wednesday
Morning	Lecture. Mortar for bedding, pointing and mortar repair of stone; hydraulic and non-hydraulic limes, cements and aggregates; correct practice for preparation, mixing and placing. Demonstration and exercise. Mortar preparation; cutting and raking out defective joints; placing mortar.
Afternoon	Lecture. Cleaning and surface treatments; survey; selection of systems; trial cleaning procedures; specification. Exercise. Cutting out and repairing stone with stone.
Day 4	Thursday
Morning	Lecture. Cleaning and surface treatments; survey; selection of systems; trial cleaning procedures; specification. Exercise. Cutting out and repairing stone with stone. Exercise. Finishing mortar joints and mortar repairs. Lecture. Case Studies and Specification (I).
Afternoon	Lecture. Case Studies and Specification (II). Course Review. Questions and conclusions.
15.30	Issue of certificates and depart.

**Non-residential course fee £620**

**Fully inclusive residential course fee:**

**Shared bathroom facilities £791**

**Standard room with private bathroom facilities £851**

**Superior room with private bathroom facilities £911**

## 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](mailto:cpd@westdean.org.uk)

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

Website: [www.westdean.org.uk](http://www.westdean.org.uk)