

# **SEMINAR**

## **MATERIAL EVIDENCE**

### **Conserving historic building fabric**

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## **KEYNOTE ADDRESS**

**The expression of our heritage**

**Nicola Ashurst**



NSW  
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## **About the Keynote Speaker**

**Nicola Ashurst** BSc(Arch) M Arch, MB Env (Build.Cons.) ICCROM (Rome) Diploma, IHBC (UK) has 24 years experience in the field of traditional masonry materials, their conservation and repair, much of which has been spent on construction scaffold. She trained as an architect and completed her post-graduate studies at the University of NSW and University of Newcastle, specialising in historic building materials. She spent three years working at the Heritage Council of NSW, beginning a series of technical bulletins, and establishing the Technical Advisory Group.

Funded by a RAlA Byera Hadley Travelling Scholarship, she completed a Building Conservation Diploma in Rome. Later, she joined English Heritage working for the Research and Technical Advisory Service, writing forty technical bulletins which became the *Practical Building Conservation* series. She was responsible for advising on historic building fabric conservation throughout the UK, and for the research programme at English Heritage. She managed the Ornamental Smiths' Workshop, where she developed the conservation of ironwork principles which are now practised in England.

In 1990, Nicola established Adriel Consultancy. Based in Nottingham, in the Midlands, the practice offers specialist technical advice regarding traditional masonry materials such as the cleaning and surface repair of brickwork, stonework, renders, terracotta and ironwork. Clients include English Heritage, the Crown Estate, architects, local authorities, property developers and Design and Building contractors. Services provided by Adriel include the assessment of external facades, their materials, conditions, deterioration mechanisms and the preparation of contract documentation for the appropriate works, followed by overseeing the quality of works on site.

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## **The expression of our heritage**

*Nicola Ashurst*

Our built heritage is constructed of immensely valuable materials. The way these materials were manufactured or finished and the way in which they were installed together into structures such as buildings and bridges provide important sources of information. Original materials offer tremendous understanding about how structures were built, and the materials and skills involved at the time. Much of this information is subtle, but it is critical in our understanding of the original item. Irregularities, mistakes and imperfections in the materials and their construction are as important as the more predictable and perfect aspects of their qualities.

I want to emphasise strongly the value of original materials and original construction and the priority that must be given to the retention of these.

Over the years, practitioners in the field of building conservation have developed high expertise in the replacement of materials – in stone matching, stone carving, brick reproduction, mortar reproduction – but we must never forget that however good replacement materials are, they are not the original and cannot hold the full suite of values that the originals do. Those of us who have worked on facades which have been repaired previously must remember the joy of coming across a building surface that has not been interfered with in the past. This is due to the fact it is original.

There should always be debate over conservation versus repair to make sure that we are clear in our justification to do repair or replacement works. The debate should always include evaluation of the original materials versus replacement, not just on a stone, block or brick basis, but also in terms of the interference that must take place to the construction of a wall when original materials are removed and replacements are inserted. The value of original over replacement is not just to do with building surfaces and the masonry units which make up these, but it also includes the construction of the structure. Wrought iron straps and ties, imperfect rubble core to walling, embedded timbers and poorly mixed mortars are all important parts of original construction and should receive due reverence, along with the materials which form the visible surfaces.

A further debate which should be constantly underway is that of appearance versus conservation – what a conserved or repaired surface or elevation will look like, compared to its original architectural intention. I mention this to sound a warning that the pendulum of attention of original material and the myriad of small scale repairs that can sometimes be applied in order to retain certain pieces should not be allowed to interfere significantly with the original

architectural intention. Conservation and aesthetics must work together and to achieve this a sound knowledge of the practical aspects of conservation and repair works on site is critical.

Many of us have been involved in the preparation of standards, charters and specifications for conservation and repair works. We need to remind ourselves that these are words and paper.

What we specify must somehow be applied to a building face if the building fabric is to benefit. As practitioners, we must become aware of on-site practice and the role of the operatives because it is they who must translate our desires into practice.

We must look at historic building materials from many angles and many scales. The correct assessment of ‘ what to do” should involve zooming in and out of scale and considering the following:

- The microscopic analysis
- Inspection of surface details of part of a stone block
- Inspection of the masonry unit as a whole
- Inspection of part of a wall
- Inspection of the façade as a whole
- Inspection of a building as a whole
- Assessing the building in its immediate context and
- Assessing the building in its overall environment

In approaching a building in this way, we will ensure that the decisions we make are correct at each level of detail.

As we look at historic building fabric, we should be constantly asking ourselves questions:

1. What is really happening here? Is what I think is happening what is really happening?
2. What are the properties and the characteristics of the material involved? How have these been affected by weathering?
3. What is the building telling me about what is wrong and what needs to be done?
4. Can I demonstrate the need to do the work I want to or am I just interfering unnecessarily?
5. What is the correct way of doing the work? Do I know what correct or incorrect work is, good or bad quality work or should I ask somebody else who does?
6. What will the building look like when the works I specify are done? Will this contribute to the appearance and future health of the historic fabric?

It is important to have a good technical understanding of a material, its characteristics and its constituents. We need to be technically secure in our understanding of degrees of deterioration and our ability to interpret the surface characteristics of these. We also need to be able to understand what the varying degrees of deterioration really mean. If some material has been lost, is this a problem? What is the condition of what is left and how should this be treated?

We often refer to acceptable levels of deterioration. What do we mean by this? Is this due to good or poor selection of material in the first place, good or poor inherent qualities, manufacturing faults, variations in its internal constituents or properties, good or bad construction, good or bad previous repairs or just weathering?

The best place to gain understanding of a building and its materials and to make decisions is at the building, on the scaffold, in one to one conference with the surfaces involved. There you have the material facts.

Before a project is commenced you need to do thorough homework on an historic building to ensure you fully understand what is happening. This may require working off a cherry picker or other access, some analytical work, some practical opening up work and probably just a lot of looking, thinking, absorbing and understanding what is happening. The more thorough and in depth an inspection made is, the better the result of a project at the end. Before a specification and schedule of works are finalised, on-site cleaning and other trials may well need to be undertaken. If all this needs to be done in addition to the conservation plan process, then so be it. Experience confirms it is a necessary process.

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