



The British Geological Survey (BGS) is the United Kingdom's premier centre for earth science information and expertise. The BGS Building Stones Team provides a range of services designed to help clients concerned with building, repairing and maintaining stone structures, from single buildings to entire towns. Our team of experts, comprising specialists in building stones and building conservation, has access to the full range of BGS facilities and resources, enabling us to provide the UK's most comprehensive and informed range of building stone services.

## Stone surveys

A **BGS building stone survey** records the distribution of different building stones and roofing slates utilised within a defined area, providing clients with a 'stone inventory' that can inform a wide range of planning decisions.

A **BGS stone condition survey** records the current condition of stone (healthy vs decayed), so that short- to long-term maintenance and repair needs can be identified and planned for. We can also pinpoint the causes of stone decay, and provide advice on appropriate repair and maintenance procedures.

Stone surveys can be performed on any type of stone-built structure (e.g. buildings, monuments, bridges) and on any number of structures. The range of recorded data, level of detail, and the means of recording and presenting data, can be varied to suit individual project requirements.

## Stone matching

New stone used to repair or replace decayed or damaged stone should be geologically compatible with the original stone to minimise the risk of exacerbating stone decay. The **BGS stone matching service** provides clients with a report containing a list of the most compatible, currently available stones to use when repairing a stone structure. BGS has provided many hundreds of cost-effective stone matching reports to clients throughout the UK.

Images (top-to-bottom): Salisbury Crags Quarry, Edinburgh, which produced stone used to build Edinburgh Castle; *Building Stone Survey* map—the distribution of different building stones in a town centre is illustrated using coloured polygons in a GIS layer; elevation drawing from a *Stone Condition Survey*—coloured areas highlight stone in different states of decay; microscope analysis of a stone sample for a stone matching report.





### Building stone resource and heritage assessments

A **BGS building stone resource assessment** is designed for clients seeking to open, re-open, extend or safeguard a building stone quarry. Assessments typically encompass the geological character, geotechnical properties, potential uses and historical significance of the stone in a quarry, but can be varied to suit requirements. BGS laboratories provide a comprehensive range of geotechnical tests (including compressive strength, flexural strength and water absorption tests) in support of building stone activities.

A **BGS building stone heritage assessment** is designed to provide information about historical building stone use within a defined area. Assessments can have a wide range of applications; for example, informing planning decisions and engaging public interest in their local stone-built heritage. Modern and archival records of settlement evolution, building construction, quarry operations, developments in transport infrastructure, and masonry and architectural styles are reviewed.

### Can we help you?

BGS has provided building stone services since its foundation in 1835. The BGS building stones team currently provides building stone services to a wide range of clients, including: heritage bodies, local authorities, quarry owners, building surveyors, architects, and building contractors. If you think we can help you, or if you'd like more information about our services, please contact us using the details below.

Images (clockwise): Gregory's Quarry, Lincolnshire has worked Ancaster Stone since Roman times; recording stone survey data in the field using a hand-held tablet PC running the BGS 'Building Stones Data Capture Module'; Holy Sepulchre Church, West Sussex (restored, medieval) constructed of stone sourced in the local area; the BGS collection of UK building stones.

For more information please contact:

## Enquiries

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**British Geological Survey**

NATURAL ENVIRONMENT RESEARCH COUNCIL

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