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Session

S24

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S24 Natural stones, usage and testing

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Natural stones are widely used as construction materials. Stones are applied both as ornamental and dimension stones but majority of natural stones are used as aggregates. Besides the current use, stones also form an important part of our cultural heritage, since many historic structures were made of stones. Although the application of stones is very widespread the testing and qualification of stones may be different in various countries. The EN (European Norms) provides instructions and methods of stone testing, but there are several aspects of stone qualification, which are not standardized. These include in situ testing of monuments and application of various test methods for provenance studies, etc. The session tries to bring papers together describing various aspects of natural stones from quarrying through testing and finally to applying as construction materials. The session is focused on any geological aspect of present use and historical application of stones but namely the following points are covered:

- (1) Characterization of dimension and ornamental stones
- (2) Laboratory testing of stones
- (3) Quality and standard testing methods
- (4) Application of stones in modern construction and other industries
- (5) Stones of historical monuments, diagnosis and reconstruction
- (6) Replacement stones and techniques used for determination of provenance and authenticity
- (7) Aggregates and armour stones, testing and quality demands

Artificial stones and re-cycling