



An experimental study of microclimate at Coliseum (Rome, Italy)

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The study of the causes of the deterioration of monuments and architectural heritage has been carried out by means of a campaign of measures aimed at the assessment of horizontal and vertical gradients of temperature and humidity. These gradients are needed both to assess the sensible and latent heat fluxes in the monument walls and to show the efficiency of the various possible mechanisms of deposition of pollutants, leading among others to the genesis of the "black" crusts. The paper will show the preliminary results of the measurement campaign performed during autumn-winter of 2002 and 2003 at the northern walls of the Amphitheatrum Flavium (Roman Coliseum). This results have provided evidence of well-defined correlations among the three components of wind speed and anti-correlation between temperature and humidity on the surface of the monument stone.