One can say that the authenticity of an object "is inseparable from its probability" (Stone, 2002). To avoid the problem of the indetermination of measurement, this paper will use the following definition of authenticity: "the judgment of the probability of attributes of sites expressing heritage values whether in a true or a false way" (Zancheti and Hidaka, 2011, p. 101).

Sustainable heritage conservation

In conservation theories and practical actions, heritage has two facets since the conservation objectives are: (1) to maintain its physical and material characteristics; and (2) to keep its cultural meanings. Depending on the perspective, the outcomes of the conservation activity may change dramatically.

Over the last twenty-five years it has been possible to observe a shift of the theory towards defining conservation in terms of maintaining meanings and values (Viñas, 2005), that is to say, the significance of the objects. This new approach is clearly stated in Article number 1.4 of the Burra Charter: "Conservation means all the processes of looking after a place so as to retain its cultural significance" (ICOMOS, 1999). Sarah Staniforth (2000, p. 6) defines the objective of sustainable conservation as "to pass on maximum significance to future generations".

That means that sustainable conservation seeks to "maintain the condition for the interpretation of the relation object-values and processesvalues between generations", because it should: (1) carry forward the present values of heritage to future generations; (2) maintain records of values given by past generations for the use of present and future generations; and (3) leave open to future generations the possibility of interpreting and associating new values of past and present heritage (Zancheti and Lacerda, 1998). To do that, it is fundamental to keep the integrity and the authenticity of material or non-material attributes of the objects.

Assessing sustainable conservation of urban heritage sites

Conservation is a set of identification, analysis, judgement and decision actions. For the new paradigm of conservation, 'critical judgement' is a double act of synthesis and judgement that, first seeks knowledge and to interpret the values of the heritage and, second, decides which and how material and physical attributes will be dealt with, depending on how the state of their integrity and authenticity is judged. The theory of contemporary conservation recognizes its dependence on subjective judgements.

This theory does not regard the conservator as an enlightened rational human being, as imagined by Brandi (1963), but as a social agent who works in a context of subjective interpretations and decisions. His role is to work with intersubjectivity, recognizing that the heritage is valued differently by individuals and groups,