## Sustainable design and technological innovation. New perspective for the traditional sector of the pottery.

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## Abstract

The present paper will describe a critical approach for the product design field, related with the local identity of a territory and with its specific material culture. This approach concerns both with the human dimension of the innovation processes, and also with the competitiveness of manufacturing systems based on the culturalization of the Economy, particularly in the traditional sector.

The current studies on sustainability for product design are mainly related with carbon emission reduction; this paper will highlight a new critical and practical approach based on how: the cultural identity of a place and the specific culture material could address traditional manufacturing sectors toward a competitive strategy for global market; the progresses in science and technology could be addressed to the enhancement of the communities' identity; the technological progress in the field of the enabling technologies could upgrade the traditional manufacturing sectors.

The paper will describe first the state of the art and then, with some practical experimentation, the results of technological advancement in the traditional craftsmen's sector of the ceramic pottery.

In conclusion the present paper aims to define a possible approaches related with the cultural heritage, in order to enhance the competitiveness of the creative industries, balancing innovation trough tradition, form the "hand made" to the "enabling technology made" manufacturing.

Keywords: Sustainable design, digital

design and manufacturing, digital ceramics, cultural economy