

## Learning how to match fresco fragments

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Full Text

This paper was presented at Eurographics 2011. Being among the conference's best papers, it was revised and republished in this ACM journal. In general, the authors present their approach as new; however, while this is not the case, it is probably an advancement in the domain of cultural heritage.

The idea of using patches is well known in the field of image retrieval, although named differently: for example, blobs [1], visual alphabets [2,3], and codebooks [4,5]. Basically, feature selection is presented as a new phase in the image classification processing pipeline, which is a standard phase in machine learning (and, as such, in image classification). A set of features specific to frescos is defined. The actual classification of the fresco's feature sets is conducted using WEKA's M5P regression tree [6] and is executed on three datasets. Although not stated explicitly, the readers have to assume the default WEKA settings have been used.

The main contribution of this work is the definition of a set of features derived from frescos, which is both a new and promising development for this particular part of our cultural heritage. However, it should be noted that their true value needs to be determined in follow-up validation studies.