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**COMPUTER CLEANING AND RECONSTRUCTION
OF THE BODY IMAGE OF THE MAN OF THE SHROUD**

Abstract

The highly damaged body image of the Turin Shroud was cleaned employing vision systems.

The work starts from a high resolution digitization of the photos, directly obtained from Enrie's glass plates, and continues with the identification of all the noise causes such as those due to the fire, water, blood, etc..

Ten different classes of defects are evidenced and each one is eliminated from both the frontal and the dorsal image of the Turin Shroud.

During the cleaning phase two new circles, that are now under investigation, were evidenced, one on the frontal image, the other on the dorsal image; they are not a defect of Enrie's glass because they are also visible in other photos.

The cleaned body image evidences alternating bands of slightly different colors due to the process of weaving the cloth.

The cleaned image is finally rebuilt in correspondence of the arms taking into account the information coming from an analysis done by means of an anthropomorphous manikin.