

Pictorial reconstruction of Palomino's frescos in the church of the Santos Juanes in Valencia

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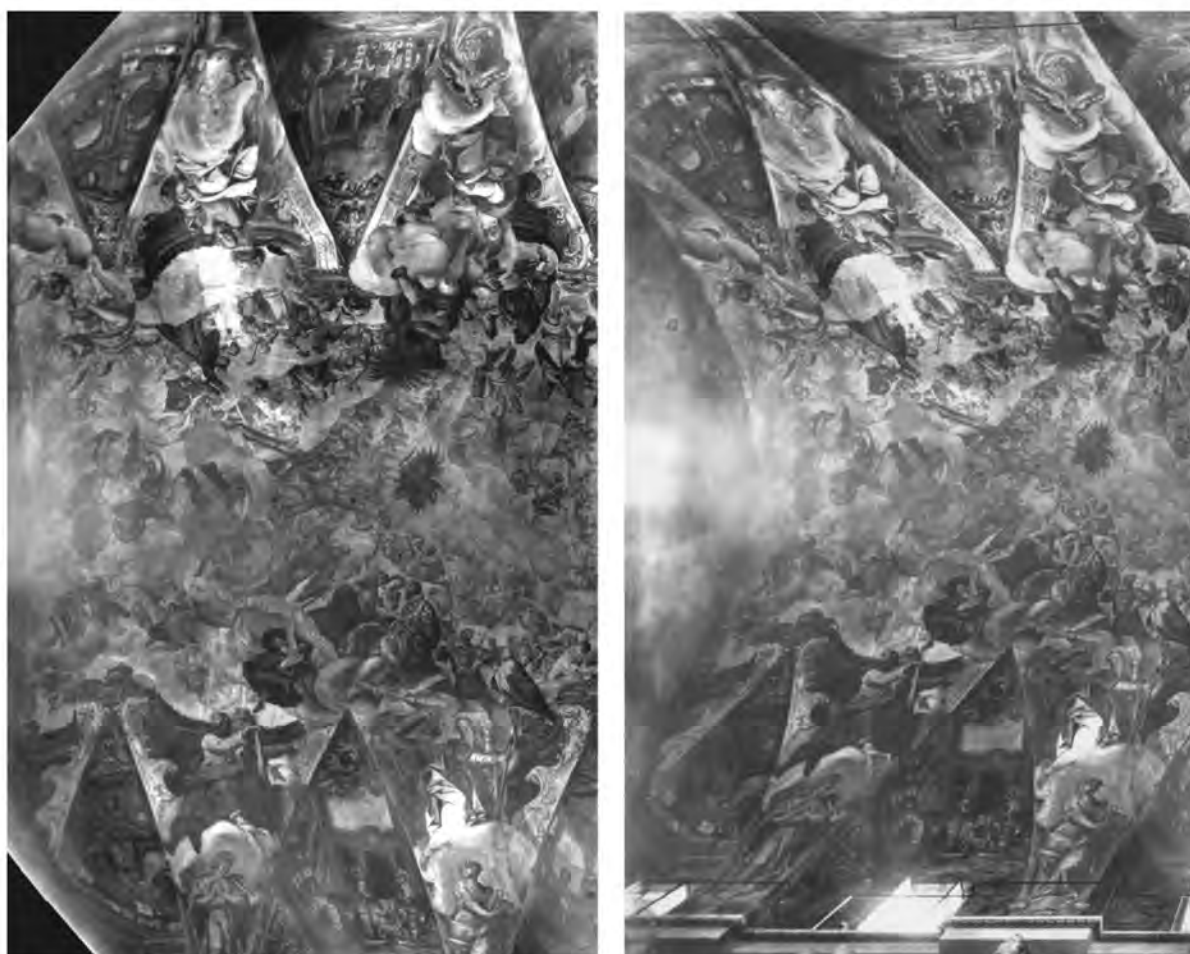
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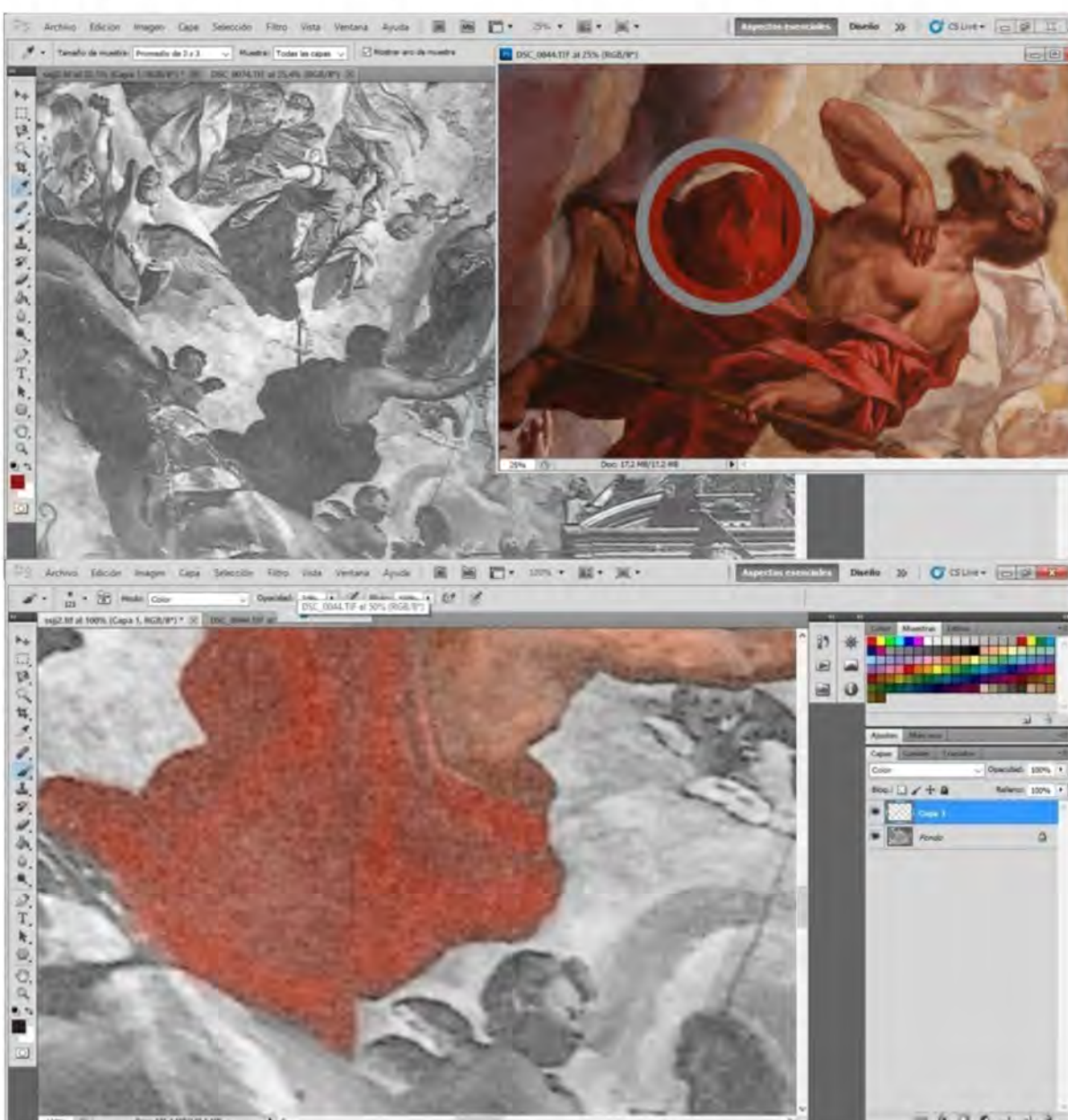
Photograph of the vault taken by J. Alcón at the beginning of the 20th century.

Digital treatment of the image

A graphical historical B&W photography taken by J. Alcón before the fire was used in order to start the work. The digital processing was carried out in several ways such as straightening, rectifying and scaling of historical photography. After the previous process, the following step was a digital colouring based on the superposition of the captures of the existing fragments to the picture taken by J. Alcón, always taking the colours of the original painting as a reference. The creation of the virtual final image also requires colour management calculations to be transformed into a printed or projected reality.



Straightening, rectifying and scaling of the old photograph.



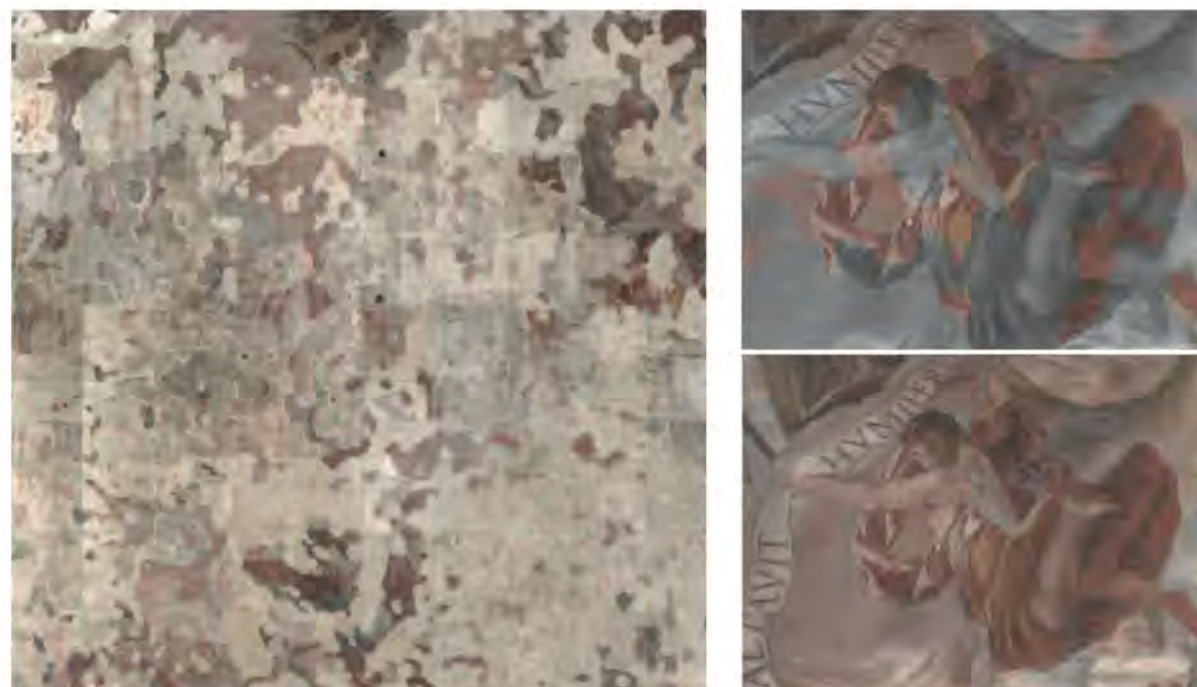
Digital colouring taking as reference pictorial works from the same author.

Palomino's frescos in the church of Santos Juanes

The case of the Palomino's frescos in the church of Santos Juanes is a challenge that requires new alternatives to traditional wall restoration. Part of the burnt paintings in 1936 were detached and partly relocated in the vault later. One third of the paintings, which were not detached, have been restored. The original conserved fragments make up only the 30% of the total and required an alternative approach to chromatic restoration. A system of aesthetic reconstruction generated by digital image was used, with the aim of recovering the pictorial and functional ambiance of this religious space.

Image transfer method

The last step was to print and transfer the image to the wall, but the challenge was to transfer just the ink, without a trace of adhesive layer on the wall. This was done with Papelgel®, a temporary support for the transfer of inkjet printing and pigmented inks. The laminar copolymer of extraordinary elasticity allowed the transfer of the images, regardless of the surface irregularities and the dimensional defects. After the transferring process, only the ink remains. This system is intended to be applied to the rest of the vault once the detached fragments will be relocated to their original position.



On the left: preserved fragments after cleaning and consolidation. On the right: digital reconstruction and colouring.



Chromatic reconstruction based on print image transfer.

This project is an important attempt in the search for perfect harmony between the different computing elements. Information technologies offer a new and wide range of possibilities to preserve cultural heritage and participate directly in the intervention processes required for their conservation and restoration.



Photograph of the apse, by J. Alcón.

Chromatic solution to the apse

On the other hand, to fulfil the objective of trying to give a global solution to Palomino's work, it is necessary to find a chromatic solution to the apse of the church due to the absence of its original frescoes. Based again on the digital treatment of the image, we put forward the use of video mapping for the recovery of the pictorial and ornamental ambiance previous to 1936. Using a B&W photograph and taking chromatic and iconographic references from other pictorial works that are in the same space-time context as the original work and are executed by the same author, an aesthetic approach to the work would be realized through video mapping technique. Mapping allows the viewer to return the aesthetic and functional values of the work, without using an invasive way, it favours a vision of its historical-artistic context. Without physically altering the heritage, the final audiovisual presentation can reach multiple information levels, helping the observer understand, for example, the technique and pictorial materiality of the frescos and, at the same time, discover the different iconographic representations.



Indoor current view from the Santos Juanes church.



3D simulation of the apse's pictorial texturing through video mapping.