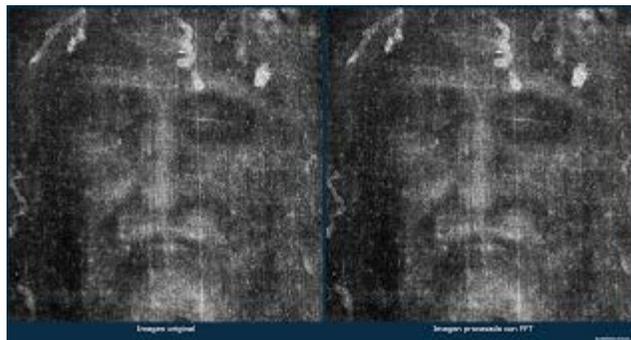


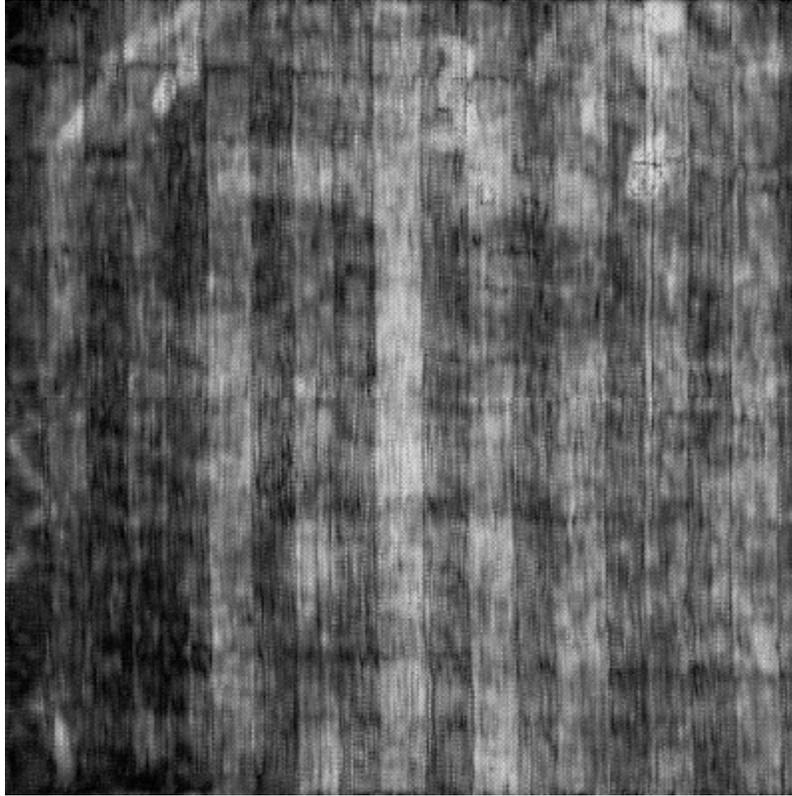
Monday, September 28, 2015

Turin Shroud image processed with the FFT technique

Having perfected a series of programs that implement the calculation of the Discrete Fourier Transform of images through the algorithm called "Fast Fourier Transform" (FFT), as I said in [another note](#) , the next step was to apply this technique in a "Real", for which I chose an image of the "Shroud of Turin" image (1) . This image had a repetitive pattern or corresponding to the characteristics of the cloth on which the image is printed newspaper. I first did a global filtering of the image in question (of dimensions 1024 x 1024 pixels), and then a "fine tuning", using this you windows smaller than 512 x 512 pixels (2) . The results were very satisfactory, as you can see in the picture accompanying this post. Dithering paper web was virtually removed in its entirety, preserving the different textures of the image and allowing its identification more clearly. The original image of this note, resolution 2078 x 1104 pixels, can be downloaded from this link: http://www.mediafire.com/download/dm0w0xdtqkqb62i/sudario_final3.zip

(1) *To date, it is unknown what is the origin of the Shroud of Turin (many would argue that the image corresponds to Jesus of Nazareth). Another mystery that remains unsolved is the mechanism of formation of the image on the Shroud. However, the carbon-14 tests conducted in 1988 on this piece, dated back to the fabric between the XIII and XIV (1260-1390) centuries.* (2) *simply removed and / or attenuate those frequencies corresponding to the repetitive pattern, and then computes the inverse FFT to obtain the final image.*





*Difference image (equalized) of the two images above. It is noted with all clarity the repetitive pattern of the fabric that has been removed by the program.
(© Wilfredo Orozco)*