

Materials and techniques for retouching glass plate photographic negatives in the beginning of the 20th century

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In the early 20th century, photography is already established in society and within the reach of many. Photography studios exist in cities and traveling photographers take photography to the rest of the population. Like today, at that time, photography was divided into key sectors, among them, photojournalism, portrait, artistic photography. Like today, not short from controversial, in particular in the sector of portraits, photography was commonly manipulated, better said retouched, for several reasons: correction of photographic flaws, to improve or modify the composition, contrasts etc., or as an artistic expression.

How was photography being retouched in the early 20th century? Today there are generally available known digital tools. A hundred years ago, the retouching was done by hand, by the photographer, or by specific professionals that don't distance themselves, in technical demand, of the arts of drawing and painting.

But the retouching was invisible in the final object, because the changes were done on the negative. Contemporary books, in the form of manuals, are a window to the past telling us about the techniques and materials used. Existing archive collections of photographic glass plate negatives are testimony to the expertise of photographers and the practical use of those books.



Retouching Portraits



Some conservation issues:

The materials used for retouching negatives are a part of the object and should not be removed in any conservation treatment. Also, the retouching is the testimony of the photographer's intention, even though it would be invisible on the final object, the positive prints.

Nowadays it has become common procedure to archives digitally convert their negative collections and make them available, in the positive form, to the general public. This practice has been put in to question, as the positive image is not the true record of the existing object. When the negative presents retouching, this question is particularly important as the retouching was done in a way that was meant to be invisible in the positive object. Furthermore, the retouching material might have deteriorated with time, and no longer fulfills its purpose; which means, the digitally converted positive won't show the intended image.

In situations, as the one shown on the left, where there is some deterioration of the materials used to retouching, the question is even more relevant. Does, in fact, the positive image, show a true or most relevant record? In a conservation intervention should the conservator retouch the negative and try to reproduce the photographer's intentions?

Historical sources

Books such as the one on the left were written as practical manuals on retouching.

These books would teach about materials, tools and recipes.

For a complete manual basic considerations and diagrams about human morphology would often be found.

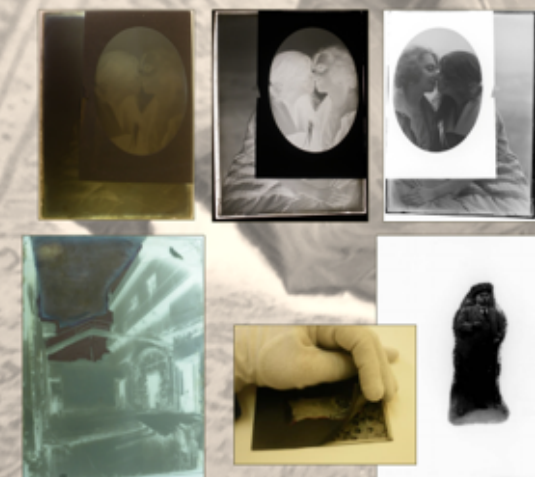
Klary (the author of the book shown here) was particularly concerned on the ethics of retouching, he makes the topic an introduction to the book.



Masks – Usually done in order to isolate specific features or for compositional purposes

The masks were done with different materials provided that they were opaque, common used materials were, cardstock, paint, bitumen, among others.

AFCML NEG001611 (top) photograph of the negative; scanned and digitally converted images: AFCML NEG001027 (bottom left), Removal of the sky, AFCML NEG003140 (bottom right) selected individual from a group image, digital conversion to positive.



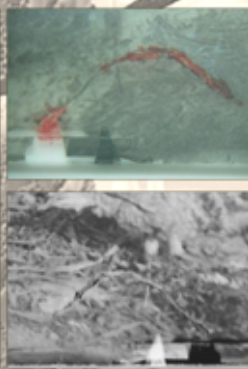
Retouching techniques:



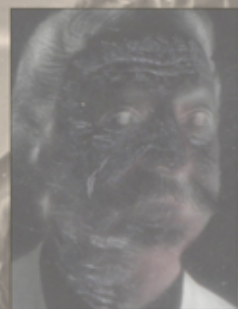
AFCML NEG003369
Mottolina – Resin varnish (usually gum arabic). The varnish prepares the gelatin surface for retouching.



AFCML NEG003371
Repairs – of gelatin speckles and other defects, with graphite or colorants such as *neul-coccia*.



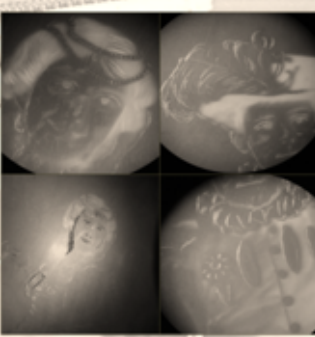
AFCML NEG002383
Grain – Optical interference to create a smoother aspect, on the left image, face wrinkles were attenuated with random patterns done with graphite.



AFCML NEG002983
Grattage – scraping of the gelatinous surface with knife, needle or abrasive powder. In these two examples a mix technique was used: graphite pencil erased the disheveled hairs; and *grattage* was used to draw hairs so to obtain a more symmetrical moustache



AFCML NEG002995
Makeup – liquid colorant or powder is used to adjust brightness and contrast: for example to attenuate shadow areas (left image and the arm of the figure of the poster's background image); to give a more dramatic effect to the face (center image); to give more contrast when the subject tone is close to that of the background.(right image).



AFCML NEG000842 magnified details (above): Scan of the original negative (bottom left: digitally converted positive (bottom right)Original (left); Digital conversion to positive (right)

When the subject areas are to bright or to dark, the highlights and contrasts were adjusted by means of graphite and *grattage*.



AFCML NEG004383 Original (left); Digital conversion to positive (right)
Adaptation of a group photograph into an individual portrait (unfinished project). Retouching: erased male standing behind and child in front; reconstruction of background and the woman's left arm.