

III INTERNATIONAL MEETING ON RETOUCHING OF CULTURAL HERITAGE

# POSTPRINTS

2015



**RECH 3**



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# VII

**MATERIALS AND TECHNIQUES FOR RETOUCHING  
GLASS PLATE PHOTOGRAPHIC NEGATIVES IN THE  
BEGINNING OF THE 20<sup>TH</sup> CENTURY**



# VII. MATERIALS AND TECHNIQUES FOR RETOUCHING GLASS PLATE PHOTOGRAPHIC NEGATIVES IN THE BEGINNING OF THE 20<sup>TH</sup> CENTURY

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## **Abstract**

Retouching glass plate negatives was a practice that emerged about the same time as the glass plate negative itself.

How was photography being retouched in the early 20<sup>th</sup> 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. Its 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. The present work will show examples of tools and materials used for retouching of photographic glass plate negatives, taking as an example a portrait collection at the Photographic Archive of Lisbon.

Also some considerations are done about the conservation of retouched glass plate negatives in archive collections.

## **Keywords**

Photography; Glass plate negative; Historical retouching; 20<sup>th</sup> century.

## 1. INTRODUCTION

In the early 20<sup>th</sup> century, photography is already established in society and within the reach of many. Photography studios exist in cities and travelling 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.

And the retoucher wasn't far off from the painter or colourist, in fact, the old miniaturists, out of work with the dawn of photography, became retouchers [1].

Photography books from the final of the 19<sup>th</sup> century, beginning of the 20<sup>th</sup> century, would include chapters on retouching and several authors dedicate entire books to the subject [2-6]. They were written as practical manuals and would teach about materials, tools, recipes, techniques and effects. A complete manual would often include more or less detailed considerations and diagrams about human anatomy.

But, the appreciation of the photographic specimen, positive and negative, as a cultural object, is a recent line of thought in conservation and restoration. Until very recently, to save a picture simply meant to replace it, by means of a new copy. The material object itself was not valued, most of the photographic specimens had no intrinsic value. Currently, these

negatives are historical documents whose value exceeds the photographed subject, the object itself also has historical, technical and artistic value that must be preserved. Like every other branch in conservation and restoration, the knowledge should start in understanding the materials and the techniques used.

Photographic negatives in archives collections, easily reach the number of hundreds, and restoration treatment is viewed similarly to that of other archive documents. The standard treatment in Portuguese archives is to digitalize the negative and preserve it as it is.

Here, some considerations are made about the historical technique of retouching, and issues in conservation of retouched glass plate negatives.

## 2. THE NEGATIVE COLLECTION AT THE PHOTOGRAPHIC ARCHIVE OF LISBON

The photographic archive of Lisbon is the depository of photographic heritage of the city of Lisbon, since 1950 to the date. The archive is responsible for the preservation of the collections and making them accessible for researchers and the general public, allowing consultation on site, and on digital records, available on-line; and by organizing exhibitions and other public events [7, 8].

But there is one collection, housed at the archive, which is not directly related to the city of Lisbon, the NEG collection (short for negative). This collection is composed of different objects, but mainly gelatin silver bromide glass plate negatives, from different

formats and dates, going back to the beginning of the 20<sup>th</sup> century [7].

This collection has 5136 objects 3% of which are retouched and/or have masks. These negatives are retouched with the use of different techniques that were the focus of a previous work [9]. The study of this collection allowed the confrontation of the used techniques and, at some level, the types of materials used for retouching, and the information reviewed in historical technical sources [9].

It was possible to identify in the collection each technique mentioned in manuals and other books [2-6] with reference to retouching.

### 3. HISTORICAL SOURCES ON HOW TO RETOUCH

Reading a selection of these works [2-6] was meant as the initial step for the study of negative retouching. The objective was the identification of the possibly used materials and the techniques. This is a crucial step for a better understanding of collections with negative retouching and its conservation state and hence its proper future conservation. Next is the general description of the main retouching techniques.

**Mattolein** – Resin varnish (for example gum arabic or mixtures of different materials); The varnish prepares the gelatin surface for retouching.

**Repairs** – of gelatin speckles and other defects, with graphite or colorants such as neu-coccin.



**Figure 1.** Detail showing the use of graphite pencil and grattage/etching to obtain a more symmetrical moustache. (from the negative: AFCML NEG000335)

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

**Grattage** – or etching is the scraping of the gelatinous surface with knife, needle or abrasive powder: Figure 1 shows that a mixed technique was used: graphite pencil erased the disheveled hairs; and grattage/etching was used to draw hairs to obtain a more symmetrical moustache.

When the subject areas are too bright or too dark, the highlights and contrasts were also adjusted by means of graphite and etching simultaneously.

**Makeup** – liquid colorant or powder is used to adjust brightness and contrast: for example to attenuate over-shadowed areas, or to give more contrast for example when the subject tone is close to the background.

**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: paper, paint, bitumen, among others.



**Figure 2.** Image with transmitted light (a) and positive image obtained with digital tools (b). Showing isolation of one of the persons depicted, reconstruction of the right arm and new background (from the negative: AFCML NEG004383).

Figure 2 shows an example of the use of all of the described techniques. The objective was to isolate the woman from an original portrait of three subjects. The man stand in behind is erased by making a new background with red colorant applied with the tip of the fingers, as evidenced by the finger prints visible in the red areas of the gelatin surface (figure 2a). The child on the woman's lap was first erased by etching; and then the shoulder and arm were drawn with graphite. The final portrait would be obtained with a mask isolating only the woman's torso as exemplified on the figure2b.

#### 4. SOME CONSERVATION ISSUES

The materials used for retouching negatives are 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.

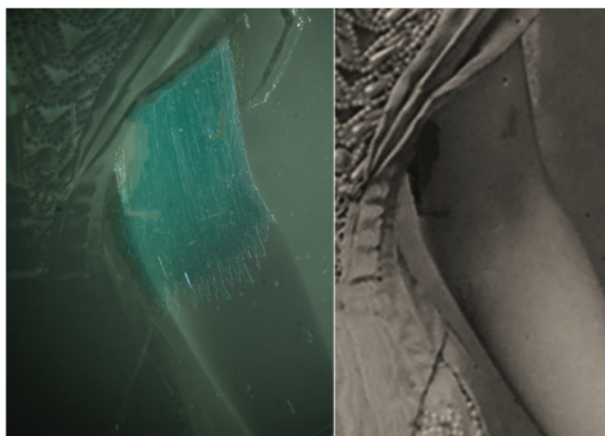


**Figure 3.** Detail of the same negative of figure 1, showing the final result. Positive image obtained with digital tools. (from the negative: AFCML NEG000335)

Nowadays it has become common procedure to archives digitally convert the negative collections and make them available, in the positive form (figure 3), to the general public. This practice has been put into question, as this 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 figure 4, 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?



**Figure 4.** Detail showing deterioration of the historical retouching and corresponding positive image obtained with digital tools (from the negative: AFCML NEG000648).

## 5. FINAL REMARKS

The retouching of negatives, and photography, in general are relatively recent areas of study in conservation and restoration. Old books and manuals are important sources of information on techniques and materials used for retouching. Future studies on available historical information, materials and techniques used and the conservation state of collections, are still needed for better understanding of conservation issues and the development of more specific conservation procedures.

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