The Stripping - *(GUM DICHROMATE)*

Once the exposition has been carried out, the most complex step of the 'gum' process begins, long and at the same time versatile, the one that requires more experience to guide it towards a desired and expected result. Every indication will therefore be partial and preparatory to experimenting with your own methodology.

A gum print with a fine and compact final grain (this is what we are talking about here) and with predominantly white edges, requires that the adhesion of the gum to the support be firm and repeatable, something that depends greatly on the composition, seasoning and viscosity as far as the gum solution is concerned, and on the quality and preparation of the paper as far as the backing is concerned.

Stripping must be carried out over a period of 30 to 90 minutes, at room temperature, moving the sheet between at least three basins and using great care on both the temperature of the baths and their waving.

Since the stripping involves the layer of coloured gum, part of which must detach from the support and spread in the bath or lie on the bottom, it is better to start by diving the exposed sheet completely for a few seconds into the basin and then placing it gently face down, taking great care tha it does not touch the bottom and or trap air bubbles; fortunately, mostly, even if soaked in water, the sheet tends to float!

When part of the coloured gum has come off, you can turn it over face upwards and start waving the bath slowly, periodically lifting a corner to let the dye drain off. All very slowly. When the image appears and a greater quantity of dye has dissolved, move the sheet on to a second bath with clean water, still leaving it face down without agitation, for a time that should be evaluated each time but of several minutes. Periodically, a corner is lifted observing the image state.

At this point, when the whole image has appeared, turn the copy over and check the appearance of lights and shadows. It is possible to intervene (into the bath) with a brush tip to clean up light tones and with a mild waving to lighten some shadows. As you can see, this entire stripping phase involves operations by 'subtraction', carried out *'wet-mode'*.

Once these corrections have been completed and everything is running smoothly, we move on to the third clear water bath, which should allow the sheet to get rid of all traces (so to speak, but this is never the case!) of non-clinging dye, including all that on the edges, if protected during exposure.

Increase the waving judiciously or adjust the temperature of the latter bath - not above 30°C - to force the layer to detach. If this is not sufficient it means that the copy has been overexposed.

THE TRICKLING – Now drip the sheet over the basin, holding by one corner for a couple of minutes, reversing corners.

Place the sheet on blotting paper, wait until the remaining water is evenly distributed over the surface and observe what happens:

the so-called '*trickling*' is of great importance for the final result and is foreseen in the gum prints, to be carried out in a controlled manner. It consists in letting gum-and-dye, which are only weakly clinging to the backing (mainly halftones), move – dragged by the little water that surround them – in their proximity, so as '*to mingle*' in the sharpest contours with a watercolour effect. This phenomenon must be closely observed so that this diffusion can be stopped by evaporating water. This effect will '*fog*' the very high-lights, building a 'matter-aspect', harmonising the tonal transitions, although hiding some details. In fact, gum printing tends to be excessively contrasted precisely because of its peculiarity of ... yielding in the midtones, which by their nature tend to resemble all to shadows above 50% of the film density, and to disperse into water in the highlights below 50% of the received exposure. Their correct "*upswing*" is therefore conditioned by the whole stripping treatment and hand practices: all operations to be carried out very slowly with steady hand and precise/quick drying check. When it is eval-

uated – even on local spots – that the blending of the tones has been achieved, the wandering of the dye is stopped by evaporating the water: either by waving gently over the sheet or by the light blow of a hair dryer (1).
Now leave the sheet in a horizontal position until the shining of the wet layer on the highlights disappears (the shadows formed by swollen jelly hold the water longer, without dispersing it on the sheet), then you can put the copy vertically, taking care that it does not roll up (2).

WET-MODE CORRECTIONS - During the drying of the sheet, various correction operations can be carried out at different degrees of humidity.
During half-drying – the dye securely clinged to the fibres of the paper – with a brush with a fairly stiff tip - and a steady hand - it will be possible to recover sharp outlines in small areas of the drawing or to force the whites of the paper. When the drying process is complete it will be possible to use a soft eraser of suitable shape to lighten and enlarge the shading of some lights.

IInd STRIPPING (and following) for 'MULTIPLE GUM' prints - With the paper well dry you can coat a second layer as mentioned, changing the dye or its quantity, or the concentration of sensitizer and/or exposure times (see pages: *The Coat / The Exposure*).
The drying of this second layer must preserve the amount of humidity left in the sheet with the first coat, for the most precise "*registering*" through the marks left in the first coat by the 'film register punched holes', and likewise for next coats. See page *The Coat* - note (5). A hygrometer is of great help too.
The stripping of the second layer - to be carried out in the same way - will show a greater sticking of the coat in the shadows (already formed by an amount of gum and dye) and a greater slipperiness of the dye in the high lights (with little or no gum on which the dye can "stick" and simultaneous closure of the porosity and roughness of the paper). Stripping times are still quite long; manual operations are the same, including *trickling*.
As the number of coatings increases, the possibility of *'soiling'* edges and lights increases too, allowing the dye to deposit on the paper's fibres.

CLARIFYING – After the last stripping, remove the Cr^{6+} which has remained absorbed onto the paper despite washing and which gives a pale yellow/orange dominance to the copy. To do this, simply soak the copy for a few seconds in a solution of a weak reducing agent (such as bisulphite) to reduce all chromium to Cr^{3+} which has a very pale green colouring, practically invisible. Wash the copy again in water and dry.

CORRECTING DRY-MODE – Once finished all 'humid' operation, and the paper is perfectly dry, it is possible to proceed with the "dry" (additive) operations, using a little of the dye used for printing, mixed with a few drops of the gum solution and adjusting the density with water. In this way, it is possible to eliminate little defects and - with a clever hand for painting and drawing – make more substantial additions. Pure whites can be obtained either by gently 'scratching' the paper with a 'trimming-knife' or a 'blending-stump', or with white tempera.

a.m.

NOTES

(1) See: R. Demachy & C. Puyo - Les procédés d'art en photographie - Photoclub de Paris 1906: "... Ce phénomené de filtration ... de pénétration réciproque qui tend à effacer le dessin, a faire disparître les détails, à remplacer par un ton uniforme les groupes de tons accolés, s'appelle "le coulé". ..." (pg.44).
Also on this same site on page QdS - La Matière Pigmentaire.

(2) To recover what spreads on the margins (unless you want to keep them dirty) dab them - still wet - with strips of absorbent paper - fixed to a ruler – which will absorb the dye along with the water, before it sets into the fibres of the paper.