

Early Developments in Photography

By John Butcher

The basic requirements for processing photographic materials are the ability to control both light and temperature. Films need to be developed in complete darkness; photographic papers need to be exposed to light of a constant value and processed under safelights of a colour to which they are not sensitive, and processing solutions need to be kept at a steady temperature throughout.

These needs are easily catered for by creating a dark-room from which all external light can be excluded, lighted by mains electricity with a few coloured filters to make the light safe, and with a mains water supply at a steady temperature which can be checked with a thermometer. Throw in a few calculations for exposure times based on the power of the light source and the distance between it and the image to be produced, and for development times based on the temperature of the processing solutions and the 'speed' of the materials used, and you're ready to go.

It's all really quite easy - unless, that is, you're a schoolboy living in the remoteness of the Norfolk Brecklands at the end of the 1940s, with no electricity, water drawn by buckets from a nearby well, and no money apart from the 4¼d per hour that was the going rate for boys employed on farms after school and at the weekend.

I had an old pre-war box camera, acquired from some now long-forgotten source, which produced eight 3¼" x 2¼" snaps on a 120 roll film, but no other facilities whatsoever. I was one of quite a large family and our home time was spent mainly in one large living-room, heated by an open fire and lighted by a tilley oil lamp which stood in the middle of the very large scrubbed table that was the centre for all our indoor hobbies and activities. Some winters the ice barely melted on the inside of the windows and coconut matting on the stone floor was a very poor insulator!

My requirement for a dark-room was resolved by waiting until after dark, then draping old grey army blankets around the table right down to floor level and working underneath it. Nobody could sit at the table in case their knees lifted the blankets and let the light in! At that time orthochromatic film was available which was not sensitive to red light so, for a safe light, I utilised one of the twin cell battery lamps that we used on our cycles, with the bulb smeared with mother's lipstick to make the light it emitted red. I bought a photographic thermometer and was made to buy two photographic dishes, one for the developing solution and the other for the fixer, as my mother positively refused to allow me to use any of her kitchen utensils for chemicals, and a variety of other pots and pans were pressed into use for washing purposes. Developer and fixer was purchased in packets of powder to mix with water.

Keeping the chemical solutions at the recommended temperatures was impossible because the environment was so cold, so I had to calculate development times of great length to compensate for the icy well-water. The dishes were set out on the floor in order: developer, water for washing, fixer, then numerous bowls of water for final washing.

The process involved unrolling the film, stripping it from its backing paper, and, holding it up at each end so that it looped through the solution in the developing dish, then, kneeling on the stone floor, passing it constantly backwards and forwards through solution for the calculated time, usually several minutes, and repeating the procedure in succession through the first washing dish, to avoid contaminating the fixer solution with the developer, then the fixer - again for a calculated time - and finally for about twenty minutes through the assorted dishes of water to thoroughly wash the film, now displaying eight negatives, which was then hung up somewhere to drip dry.

The photographs were printed as contact prints on gas-light paper, which could be done in dim light. Again an after dark procedure, performed at one end of the living-room table shielded from the light from the tilley lantern by a sheet of plywood held upright with piles of books. Again the dishes of developer, water, fixer and final washing water were set out, and processing times calculated. Then the negative and a sheet of contact paper, with a pre-cut red celluloid mask between them to form a white border around the print, were placed in a flat frame with a glass front and a spring loaded back which held the two in

close contact, the tilley lamp was pressurised to its maximum to produce a bright, steady light, and the glass fronted frame was exposed to the light for several seconds before being whipped back into the shade, dismantled and the print placed image side uppermost in the developer dish which was then rocked gently whilst the image developed. As soon as it reached the required density the print was passed quickly through the first water dish, to prevent further development, then into the fixer solution for several minutes before going through the final washes. When all the prints were made, they were placed between sheets of blotting paper and left under a heavy object to dry without curling.

Although we did eventually move into the twentieth century, with mains electricity and running water, and I did acquire a few mod cons like daylight developing tanks and electrically powered contact printing frames which doubled as safe-lights, apart from changing for a few years from developing black and white negatives to processing my own colour slides my photography never really progressed beyond the contact print stage. I still recall, though, the great sense of achievement when the newly-developed films were brought out into the light and the negative images on them viewed for the first time, and the immense thrill of watching those first positive images appearing when the prints were in the developing solution. And, even more, the pride in displaying the finished prints to all who were interested, and no doubt to a good many more who weren't particularly, and the airy nonchalance with which one could say, "Of course, I can make you a copy of that one if you wish"!

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