

MONOPHEN

Describing the searching tests carried out on the new combined developing-fixing solution

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Ever since Ilford, Limited, startled the photographic world with the introduction of Phenidone, the new developing agent, in 1951, an interested eye has been kept on their new photographic chemical products.

Whilst cameras have been growing more automatic and fool-proof over the years, processing procedure has not changed greatly. The trend is towards liquid chemicals which are so easy and quick to use although inevitably more expensive than their powder counterparts. Nevertheless, the sequence of develop and then fix has remained standard, and rightly so since it worked so well. Single-solution processing was known as a curiosity, but very few photographers were willing to pay the price of heavy speed loss and, since the solution could not be purchased ready-made, it did not appeal to those not technically minded. The first monobath to overcome these drawbacks was Unibath, fully reviewed in our issue of March 9, 1960, and there is no point in repeating the observations made therein. Since the Ilford developer contains Phenidone and is a monobath it is inevitable that it be called Monophen. It is also inevitable that comparison be made between it and the American product since there is no other comparable product on the market at the moment (although the race is on and doubtless the photographic consumer will have a choice of several makes before long). In both cases one dilutes the stock solution with an equal volume of water, and develops for about six minutes, preferably at a temperature of 65 deg F or above. Contrast is preset, mainly by the developer and to a lesser extent by the film. Prolonging development does nothing; the film is fixed and does not alter. These monobaths contain developer and fixer; the properties naturally vary as the balance is altered. Monophen acts *as though* it contained a little more fixer and correspondingly less developer than Unibath. This results in a lower level of contrast. Quoting actual figures, Unibath gave a slope of 0.92 with rollfilm FP3 while Monophen produced 0.72. This slightly softer negative conforms more exactly to usual practice to-day, although the difference is not worth worrying about too much since subject contrast remains the greatest variable. Films were exposed on a wide range of subjects, using Pan F, FP3 (both types), HP3, and HPS. The vast majority of pictures proved printable on Ilford normal bromide, a few taken on a dull day needed hard while some portraits (taken with fairly contrasty lighting) gave the best results on a soft grade of the same paper. This is a very satisfactory result and indicates that the contrast balance has been well set for Ilford films.

Universal Application

Although Monophen was, naturally, formulated primarily for Ilford films, people will develop material of other makes in it. For this reason Kodak and Adox films were tried also, the fastest and slowest types of each range being included in the expectation that trouble would be more likely to arise. In fact, the negatives were quite printable in every case and, although it is obviously impractical to test every film of every make, it appears probable that any other film would be satisfactory also.

The usual "yardstick" for developers is D76 or ID11, so this was used as a comparison. Grain was slightly coarser—

Monophen is sold in 500 c.c. polythene bottles. The cost is 8s 9d. This may seem a little high at first glance, but in fact corresponds quite well to the usual costs of developer plus fixer if an average of different types is made.

one could not call Monophen a fine-grain developer. Oh the other hand, sharpness or acutance was good. These results are a little unexpected since so much silver solvent is present but the high alkalinity is also a governing factor. There is a slight speed loss compared to the same developer. This amounts to about half a stop and so would be negligible in practice. Fog level is very low giving negatives which look delightfully clean.

Store Carefully

One can develop twelve 120-size rollfilms with a 500 ml bottle (or twelve 35-exposure 35mm films, or fifty 5x4 cut films or plates). This was confirmed in practice and if the number processed has been forgotten there is no need to worry unduly since the film will show a slight cloudiness, due to residual silver halide, when the solution life has been exceeded. If this happens do not leave the film in the Monophen after inspection or fog level will rise rapidly; simply put the negatives in ordinary fixer and all will be well. A word of warning should be given at this point. Like other developers, and monobaths in particular, there is the danger of aerial oxidation if storage is imperfect. In this case the result is lower contrast and miserably flat negatives result. Naturally, the makers cannot be blamed if their instructions are disregarded! If the used developer is stored in a full bottle with a good cap no trouble will arise. The polythene container in which Monophen is supplied has a very good screw top and is well suited to storage. Photographers with wives and/or families are likely to find covetous eyes cast on these polythene bottles and firmness may be needed to retain them for photographic use!

As with other monobaths, the film is not hardened so that a little care over temperatures is desirable when washing, and drying times will be a little longer than if the usual hardening fixer were used. On the other hand washing times can be reduced a little with safety (the makers quote five minutes) and since total processing time is only six minutes there is certainly no overall time loss compared with conventional methods.

To summarize, Monophen does not replace the "speed-increasing" developers such as Microphen or Promicrol, nor does it supersede other specialist formulae. It does offer virtually fool-proof processing, is quick and easy to use. It is an ideal developer for anyone who dislikes chemical complexities or is apt to give incorrect developing times. As with the automatic cameras, the expert may well prefer a method allowing individual control according to subject and personal preferences but this "automatic development makes processing so simple that it can most certainly be recommended for the beginner and novice who might otherwise be deterred by imagined difficulties or discouraged by failure. Indeed, after initial prejudice has been overcome, some experts may even become converted by the convenience of the method!