

# In Praise of Slower Film

Black-and-white photography has been enjoying a real renaissance during the last few years. The resurgence of interest has been evidenced by the remarkable number of new products available on the market. With this flurry of activity surrounding black-and-white, it's no wonder that the addition of Agfa Agfapan 25 Film to the line distributed by Braun North America has gone almost unnoticed. With an ASA rating of 25, this newest member of the Agfa family of films sold in this country is the slowest-speed black-and-white film in general distribution. The fine grain and high resolution

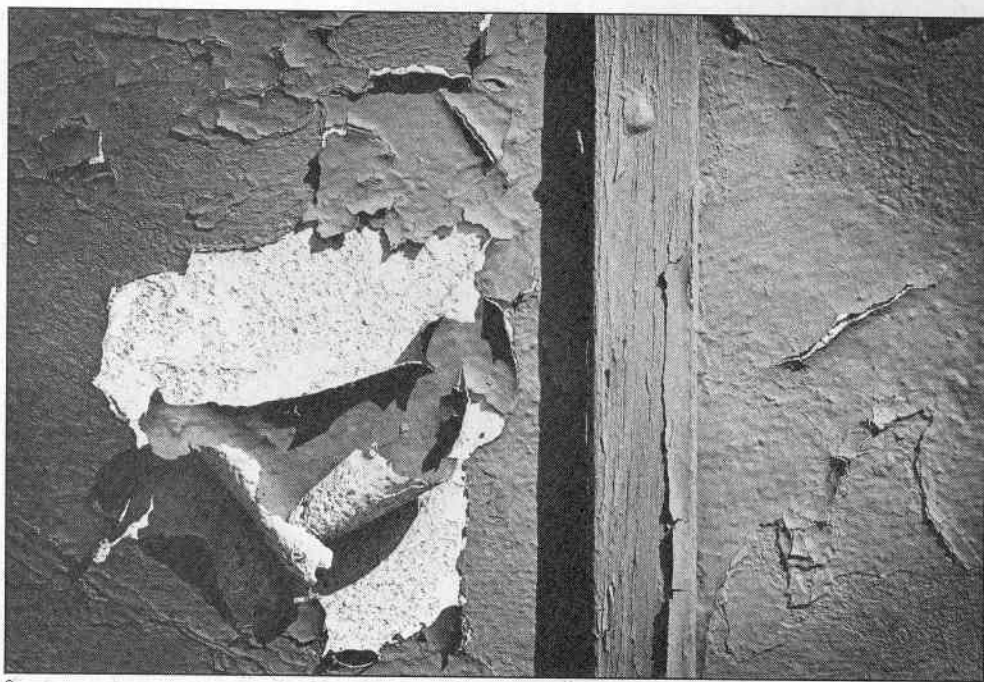


## A REPORT ON AGFAPAN 25 FILM

BY DAVID BROOKS

that go with that distinction are extremely significant in terms of small-format cameras.

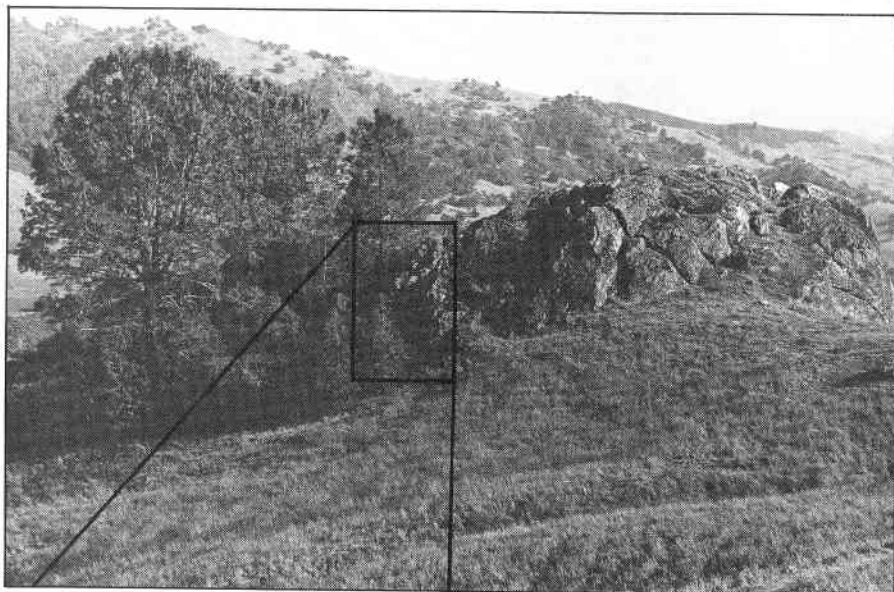
Besides having a slight edge on the competition in measurable resolving power and grain size, Agfapan 25 brings with it an even more important advantage. It is particularly responsive to variations in development. Even though some photographers consider the slow speed of fine-grain films a hardship, I believe that excessive negative contrast is more of an impediment for most of us. Because of the very small size of the silver particles in slow, fine-grain films, processing solutions have access to more surface area of the individual grains promoting the rapid development of density and contrast. The extremely short developing times of most of the popular developers means that only a slight error in time,



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# AGFAPAN 25 FILM



1A.-C. A realistic test of the value of using a slow-speed, fine grain film is best conducted by evaluating the print qualities of an image. 1A contains the full image made from a 35mm negative on Agfapan 25 developed in Rodinal 1:75. 1B is a 1:1 reproduction of the indicated area

of the image enlarged to make a 13 1/2 x 20 print. Compared to 1C (a similar image area from a 16 x 20-print enlarged from a 4 x 5 negative), the qualities of graininess, sharpness and tone reproduction are indistinguishable when viewed at a normal distance.

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1. Extremes in subject contrast are easily and effectively handled with Agfapan 25 120-size film and WD2D pyro developer. WD2D comes in dry-powder form and is mixed with water to make two separate stock solutions, A and B. By adjusting the amount of solution B in relation to the amount of A that's diluted with water to

make a working developer, you can vary development contrast without changing the time or temperature from the standard established for normal development. Using this mode of contrast control allows you to print subjects of varying contrast on one grade of paper and obtain very consistent image qualities.

2. Although very detailed subjects like landscapes seem to be within the natural realm of slow-speed, fine-grain films, Agfapan 25 is also ideally suited to portraiture using electronic flash. This is particularly true when a soft-focus lens is used, creating large areas of gently graded tones in an image that will accentuate any graininess in a negative. In addition, this is one situation where slow film speed can be an advantage because of the large apertures at which softfocus lenses must be used to get their full effect. Even the lowest setting of a studio flash system provides too much light for a higher speed film.

3. Contrast control via alterations in the amount of development is the ideal way of matching the subject brightness range to a particular paper contrast. However, with many exposures on a 35mm roll of film, highly varied subject conditions are most likely the case. This textured section of a wall had an exposure range of only four exposure steps, but was on a roll of high-contrast subjects that received 12 minutes development in Rodinal 1:100. The resulting negative had to be printed on grade No. 4 paper to obtain adequate image contrast, but without the harshness and very obvious graininess that often result when using a high-contrast paper.

temperature or agitation rate on the side of overdevelopment can result in considerable excess contrast. But with Agfapan 25, it's a different story.

I decided to test Agfapan 25 with some important basic factors in mind. Many of the kinds of subjects, like landscapes, that call for choosing a slow-speed film because of its enlargeability, also involve great variations in subject contrast. My subject selections were made accordingly. In terms of apparent graininess and image resolution, I decided on 20 inches as the longest dimension of an enlarged print image. For comparison purposes—but a patently unfair one—I photographed the same scenes with a 35mm camera and a normal lens using Agfapan 25, and with a 4 x 5 camera and a 180mm lens using an ASA 125 film to make close-to-identical images.

To process the Agfapan 25 film I selected three very different developers. Agfa Rodinal was the first choice, not only because it's recommended for use with the film, but also because it offers the option of different dilution rates to alter the development time and control contrast. My second choice was John Wimberley's WD2D pyro developer; it also offers a method of contrast control, and pyro developers have a reputation for excellence in the reproduction of subject tones throughout the subject/image tonal range. The final choice

was the latest XR-1 version of Perfection developer because it provides a two-exposure-step increase in effective film speed.

Before starting on the comparative field tests, I made standard film-speed and contrast tests using a gray scale and checked the results with a densitometer to zero-in on development times. Repeated tests resulted in negative contrast suitable for printing with a condenser enlarger.

#### RODINAL

Based on my tests, for average subject brightness ranges of five to seven exposure steps, I would recommend a dilution of Rodinal 1:75 with development for ten to 12 minutes at 68°F. For high-contrast subjects, use a dilution of 1:100 and a processing time of 12 to 15 minutes. The Rodinal-recommended lower dilution of 1:50 and an eight- to ten-minute developing time is useful when subject contrast is lower than average. All these recommendations require continuous agitation for the first minute of development and one inversion and a half



turn of the developing tank every 30 seconds for the remainder of the period.

#### WD2D

For the second developer test I used the premeasured version of WD2D pyro developer available from The Photographer's Formulary, P.O. Box 5105, Missoula, Montana 59806. Although I've been using this developer with 120-size Agfapan 25, and have found that a development time of nine minutes at 68°F. is ideal for my purposes, I decided it would be best to check whether the same time would also apply to the 35mm size. And it's a good thing I did,

even though the negative contrast proved to be the same for both films. My considerable experience with 120 Agfapan 25 and WD2D has convinced me it offers very superior negative qualities particularly with landscapes and similar subjects. But when WD2D is used with the 35mm version, a very high, greenish-colored base density results from the combination of the developer's staining characteristic and the film's bluish antihalation dye.

#### PERFECTION XR-1

The third developer test with Perfection XR-1 was my first experience with this newest version of the only prepared extended-range developer available. Compared to conventional developers, extended-range types produce negative densities at a faster rate than they produce contrast. This was borne out by the results of my first test. Even though the negative contrast was slightly less than desired, the effective film speed was E.I. 100. Increasing the solution to the required eight ounces per roll of film

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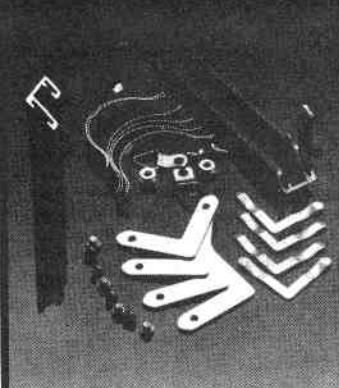
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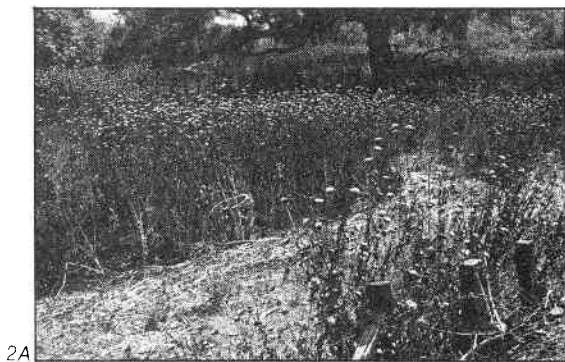
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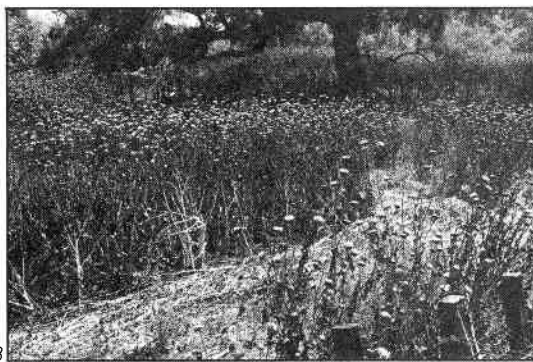
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# AGFAPAN 25 FILM



2A



2B

solved the contrast problem.

Follow the recommended procedures exactly as they are detailed in the instructions. The procedures vary considerably from those applied to conventional developers. With Agfapan 25, stock is diluted 1:4 with water just before development. Processing temperatures are also different; 86°F. is specified for developing Agfapan 25. A prewetting bath at the same temperature as the developer is also required practice before development to bring tank and film up to temperature. The development time for Agfapan 25 is 12 minutes using an agitation rate of one inversion every two minutes after inverting the tank three times immediately after pouring in the developer solution. If you follow the Perfection procedures precisely, you can use Agfapan 25 as if it were a medium-speed film and get fine grain and high resolution negative qualities that you'd never expect.

## FIELD TESTS AND PRACTICAL RESULTS

For both the 35mm camera loaded with Agfapan 25 and the 4×5 camera I chose subjects to photograph that were located some distance from the camera position and that contained small details. All subjects represented a normal range of reflectances illuminated by sunlight during the middle part of the day. The object of the comparison was not simply to compare and see if the 35mm Agfapan 25 image was more or less grainy, sharper or softer than the negatives produced with the 4×5 camera and medium-speed film. It would be foolish to even bother making the comparison if the test results were to be examined with a powerful magnifying glass. Such a trial would demand that both the 35mm camera lens and the enlarging lens resolved four times more detail than the 4×5, which is, of course, unrealistic. Instead, I used more practical criteria. I compared a 16×20 print (13½×20 full-frame 35mm), the largest standard size, made from each size negative and then evaluated them from a normal viewing distance for all aspects of print quality.

From this more realistic perspective, the

**2A.&B. Backlighting from the sun on a clear day is at the very limit of what can be considered average subject contrast. Even under these conditions Agfapan 25, pushed to E.I. 100 and processed in Perfection XR-1 developer for the recommended time and temperature, produces a negative that holds detail in both shadows and highlights (2A). Print of identical scene made from normally developed 4×5 negative shows no advantage over the smaller format photo No. 2B.**

advantages of using Agfapan 25 for its potential image-making qualities became quite evident. Just as you would expect, examining the printed results from a much closer-than-normal viewing distance revealed differences in favor of the larger film format. But it was necessary to magnify a small portion of the 20-inch wide prints with an 8X loupe to detect any significant distinction. Even at this magnification, the grain structure in the Agfapan 25 print is very fine, and although more apparent than the grain in the print from the 4×5 negative, it is definitely more sharply and crisply defined.

At a normal viewing distance of at least two feet for a 20-inch wide print, the sharpness of the prints from the 35mm Agfapan negatives is equal to the resolution of detail in the 4×5 negative prints. But again when a loupe is used to examine a small part of the print, it becomes obvious that the larger format provides more acutely defined image information. Whether this difference in sharpness on close inspection is due to optical differences or film performance differences cannot be definitively stated. Considering how sharply the grain structure in the Agfapan 25 image is defined, however, my judgment is that the advantage of the larger format is due more to optical performance than to resolution capabilities of the films.

## RESULTS

I applied the same kind of comparative test both to Agfapan 25 exposed at the rated ASA of 25 and developed in Rodinal 1:75, and to the film exposed at E.I. 100 and developed in Perfection XR-1. At least with normal-contrast subjects, the differently exposed and developed Agfapan 25

images held up equally well against their 4×5 counterparts. No visible differences in apparent graininess or sharpness were noticeable between images exposed normally and developed in Rodinal and those made with a two-exposure-step increase in film speed and developed in Perfection. However, even though considerable latitude for contrast control is claimed in Perfection literature, no data allowing different rates of development—other than varying the rate of agitation to effect contrast—is offered.

Obviously, there is more to print quality than apparent graininess and resolution of detail. The representation of subject values by corresponding image tones must reflect the character of the subject as richly and fully as the capabilities of the paper allow. The key is the negative. The test prints revealed very close correspondence between the Agfapan 25 images and the 4×5 in overall contrast. And, as important, areas of local contrast indicated equally good separation of tone in highlights, midtones and shadows. But the usual distinction between large prints from 4×5 and 35mm neg is in the preservation of tone variation and gradation. In a large print from 35mm it's usual to expect that these subtleties will be lost. Not so with Agfapan 25. The only way any distinction between prints from the two formats can be made is by examination with a magnifying glass.

Although the results of the comparative tests were extremely favorable to 35mm Agfapan 25's capabilities, I was still concerned whether these qualities would go by the board when subject conditions varied from average. So, to complete my evaluation I photographed a variety of subjects illuminated by different qualities of light. I also extended my practical testing to include 120-size work which I processed in the WD2D pyro developer. The overall result of these tests leads me to conclude that when development is altered for abnormal subject contrast, the proportional representation of tones and preservation of subtleties achieved under normal conditions is not lost. □