

PRAKTIKA

PHOTOGRAPHY

1979 No 5



THE JOURNAL OF THE PENTACON CLUB





Above: 'Autumn in the Woods'. The square format given by cameras such as the Pentacon-Six is a useful one. In many cases the full frame picture is pleasing and satisfactory; but there is also the added advantage of being able to crop (or mask) this to either the horizontal or vertical format if necessary. It could be said that the format offers a choice of three pictures for the price of one!



Pentacon-Six: The System Camera

TREVOR R. ALLIN, Ph.D., discusses a versatile Pentacon product which has long been the favourite of many 6 × 6 cm camera enthusiasts.

LIKE MOST keen amateur photographers, my interest in the hobby developed after buying a 35mm SLR and discovering the versatility of such a system. The production of my first 12in. × 15 in. black-and-white prints was exciting, but as time went on, I became critical of grain, and limited by the degree of enlargement possible, especially when wanting to 'pull out' a detail from a negative. Blowing up half of a colour neg to 10 in. × 8 in. revealed grain – and lack of fine detail – that I usually found unacceptable. So the search for a larger-format camera began.

It had to meet the following conditions, as far as I was concerned:

- 1: It must be an SLR to avoid all the parallax problems with close-ups;
- 2: It had to have interchangeable lenses, with wide-angle, portrait and telephoto available, plus bellows, tubes, etc.
- 3: It must have a pentaprism, so that I could follow moving subjects easily;
- 4: TTL metering was a must, to avoid all the arithmetic with close-up work, filters, etc.

The Camera

This reduced the choice to two 4.5 × 6cm cameras, and five or six in the 6 × 6/6 × 7 format. I considered 4.5 × 6 to be too small and – frankly – price considerations ruled out all 6 × 6/6 × 7 cameras except one: the Pentacon-Six (re-named the Pentacon-Six TL with the introduction of the metering prism).

But though the price was between a half and a quarter of that for all other middle-format cameras meeting the requirements given above, the quality is definitely on a par with any equipment at any price, and the camera forms part of a comprehensive system with lenses and accessories designed to cope with any photographic assignment.

The Pentacon-Six is in fact a scaled-up 35mm camera, with lever wind, focal plane shutter speeded to 1/1000 sec, TTL metering and FAD (fully automatic diaphragm) lenses up to 300mm, with manual 500mm and 1000mm lenses. It takes both 120 and 220 film (12 or 24 exposures), and even takes single shots on standard glass plates.

Unfortunately, it is at present not imported into the U.K., but C.Z. Scientific Instruments Ltd: (the importers of Pentacon equipment) assured me that in their work-

shops full servicing facilities for the camera are available, should they ever be required. So I started scanning the small ads in *Amateur Photographer*, and after a few weeks bought a 'Six' from an enthusiast who has subsequently become a good friend.

The camera came with the standard 80mm f/2.8 Biometar, which is an outstanding lens, and the folding finder hood with flip-up magnifier and direct vision sports finder. This I used until I acquired a second-hand metering prism for about £70. (I have seen them cheaper, but have never got to the 'phone fast enough! If you want a new one, Campkins of Bond Street were selling some recently for a bit more than £100)

Metering

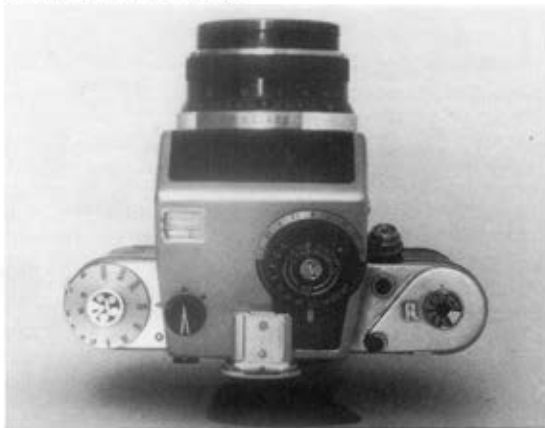
The meter will measure light at full aperture, but then you have to take the camera from your eye, read off the values, and transfer them to the shutter speed dial and aperture ring. By far the quickest method is to meter at working aperture – and if you're an LLC/PLC/VLC owner who reckons that full-aperture metering is a must, don't worry: the FAD pin and depth of field preview lever make everything simple and fast.

Here's how to do it:

1. Choose in advance the shutter speed most suitable for the job in hand, and set this on the camera and meter.

2. Cup left hand to cradle the lens, while the right hand holds the body, ready to fire. This is the steadiest grip, and permits the use of relatively slow shutter speeds. The left hand is also well placed to control diaphragm and focus.

Below: Top view, showing metering prism and accessory shoe with eye-cup in place. As well as being visible in the viewfinder, the meter needle can be aligned in the small window. (In this case, the viewfinder window should be closed).



3. Press depth-off-field preview lever with second finger of left hand and simultaneously rotate the aperture ring until the meter needle is centred. If you need to re-focus, you can release the preview lever at any time.

4. Fire – the lens will stop down automatically. It really is easier to do than to describe, and is as fast as any full-aperture metering system.

If you prefer aperture priority, then set the aperture desired, stop down as above, and instead of rotating the aperture ring, rotate the shutter speed dial on the prism until the needle centres – the same as with any other SLR. But as the meter isn't coupled, then set the camera shutter speed dial to the same value. This is slightly slower, but in practice you should need to do it only once at the beginning of a session, and thereafter minor changes in lighting (of perhaps half a stop) can as usual be handled by the diaphragm without any marked difference in depth of field.

Lenses

Carl Zeiss of Jena (East Germany) make for the Pentacon-Six a range of lenses of unequalled quality, from the 50mm wide angle to the 1000mm mirror telephoto – up to 300mm with fully automatic diaphragm (FAD), which means that (except when metering) the diaphragm stays fully open (giving a bright viewfinder image and making spot-on focusing easy) until the moment you fire, when it stops down automatically to the setting you have chosen.

All the lenses one is likely to want are available secondhand in Britain, and some are available new (again, from Campkins, and sometimes from Jessop of Leicester). All are available new in West Germany, where you can also get a lot of second-hand equipment, but prices for lenses are generally higher than in the U.K. I have also seen most items new in East Germany, but am not sure what the East German customs regulations are concerning export. Prices are also relatively high.

If you're used to thinking of 50mm as being a standard lens, this is so for 35mm cameras, but you have to

get used to a new set of focal lengths for 6 × 6cm cameras. As a rough guide, a given focal length on a 6 × 6 camera is equivalent to a lens of slightly more than half that focal length on a 35mm camera – i.e., the angle of view of a 50mm lens on a 6 × 6cm camera roughly equals that of a 28mm lens on a 35mm camera.

In his article on the Pentacon-Six in *Praktica Photography* No. 5, 1977, A. M. Carlsson pointed out that for a 10 in. × 8 in. print from a 35mm negative, at most 24mm × 30mm of the negative can be used.

'Such an area represents less than a quarter of a 6 × 6cm negative. So, to make an 8 × 10 in. enlargement from this small section of the latter, the same linear magnification is required and, provided that the Pentacon-Six negative possesses a good standard of sharpness and fineness of grain, then the final prints are bound to be of similar quality.'

He adds that the standard 80mm lens roughly corresponds to a semi wide-angle 42mm lens on a 35mm camera when substantially the whole negative area is used, while selective enlarging of a 24 × 30mm section gives the effect of an 80mm lens on a 35mm camera. This corresponds to the range of a mini zoom 'but – for most of the time (i.e., when not enlarging only ¼ of the neg) – resulting in a higher standard of print quality'.

Applying this 'zoom' concept to the lenses available for the Pentacon-Six yields the following interesting results:

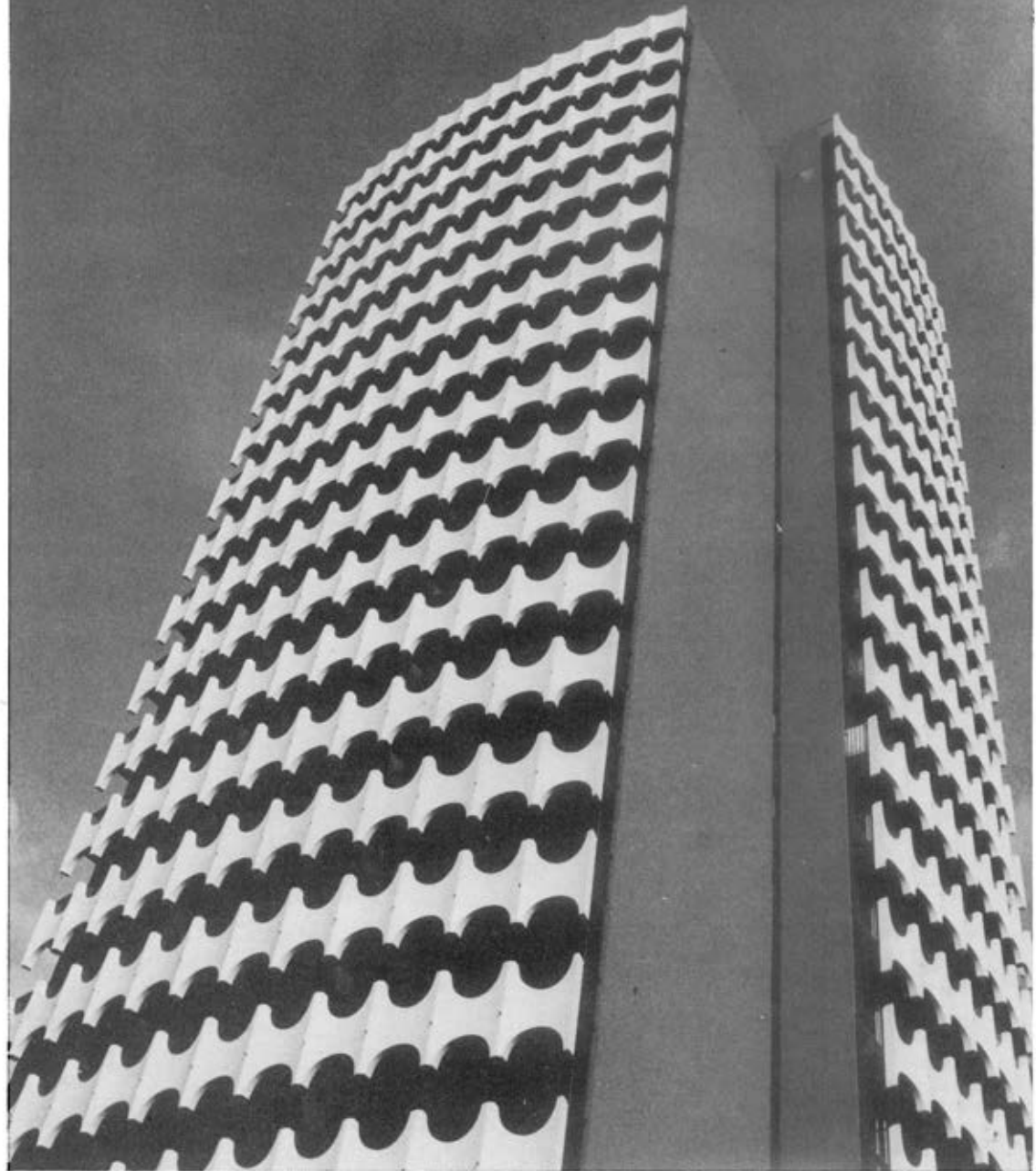
6 × 6 lens	35mm zoom equivalent
50	28-50
65	35-65
80	42-80
120	63-120
180	94-180
300	150-300
500	250-500
1000	500-1000

Naturally, one could in theory apply a similar approach



Right: 'La Belvédère'. A crisp and clear impression of modern flats in Rennes, France, captured with the 50mm Flektogon lens on the Pentacon-Six. 1/250 sec. f/16; original taken on Kodacolor II film.

Left: The Pentacon-Six is a system camera with a comprehensive range of lenses and accessories.



to lenses of fixed focal length on 35mm cameras, as in this case too one can enlarge part of the negative. However, considering the much smaller initial negative area, such cropping is best avoided wherever possible. (Conversely, if you are confident that you will be able to fill the frame with the majority of shots, and thus avoid cropping at the printing stage, the larger format permits the use of higher-speed (and more grainy) film, without the increase in grain becoming objectional in the print, where it might be in the case of a 35mm neg. enlarged to the same size.)

Of course, you don't need *all* these lenses. In Jena last May I was told that the 65mm moderate wide-angle is no longer being produced, but usually the 50mm wide-angle is preferable anyway, and for most purposes I

would consider the 120mm lens unnecessary, as (using the 'zoom' principle) the 65mm is overlapped by the 50 and the 80, and the 120 by the 80 and the 180. (But, at less than half the weight of the 180, the 120 is ideal if you do a lot of half-length portraiture in an average-sized room. For head-and-shoulders portraiture and medium tele work, the 180mm is outstanding and bitingly sharp right into the corners.)

The 500mm and 1000mm lenses are definitely for specialist purposes, and I prefer the automatic 300mm Jena S with a 2x converter to the 500mm preset, which (though a beauty to handle) is almost twice as heavy and twice as long.

To be concluded