

MEDIUM FORMAT RANGEFINDERS AP GROUP TEST



A LARGER RANGE

Want a handy medium format camera? Yes, they do exist. **Damien Demolder** samples the 6x7cm and 645 rangefinders from **Fuji, Mamiya and Bronica**

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MAIN CONTROL DIAL

The main dial on the top of the camera controls your shutter speeds and gets you into the exposure modes. With the combination of an easily accessible exposure compensation dial and aperture priority, I found little use for manual control



BACK PLATE

The majority of the camera's controls are located on the backplate. Here you have ISO settings, exposure compensation, the multiple exposure button and the self-timer. The controls are simple to use and well laid out

INSIDE

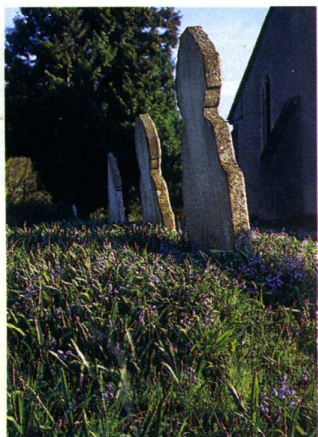
Film loading is easy and does not take too much time. Pressing the white buttons at the bottom makes the film-spool retaining pins pop out



Bronica RF645

'The viewing window presents an upright image'

ASK ANY PHOTOGRAPHER if he would like to improve the quality of his photography and he would almost certainly say yes. Ask exactly what should



be improved and I am sure grain size and sharpness would be mentioned at least once. Ask any photographer on the move how he would feel if you added an extra kilo to the weight of his camera bag and I don't think the answer would be quite so polite.

If one thing unites non-studio photographers around the world, it is the desire for the best possible quality at a weight that will not hinder or inconvenience the creative process. When talking about amateur photographers, size must be added into the equation. Weight is a factor for most professionals but size is, within reason, mostly unimportant. For the amateur, who may carry the thing around all day, size should also be kept to a minimum.

The three cameras on test this week

LEFT I thought the contrast in this scene might fool the meter. It didn't



ABOVE Using the 43mm lens presents no problems with distortion

aim to address those thorny issues of quality, weight and size. Two of these models are not even a couple of years old yet and, while some of the features and technology they

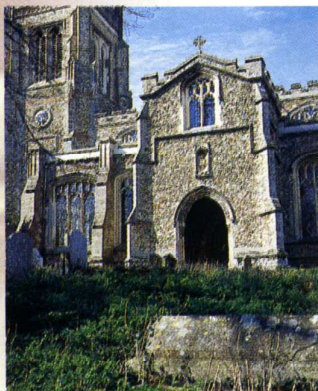
include owe much to the modern world, they are all based on cameras that were born at a time when 35mm and APS didn't exist. These are the modern medium format rangefinders. They are the Bronica RF645, the Fuji GW670III and the Mamiya 7II.

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SPECIFICATION

There are two types of specification in any camera. First there is the specification of functionality – shutter speeds, apertures and the film frame. Then there is the specification of convenience, which adds functions and features to a camera to make it easier to use. The first of these cameras here is big on the functional spec but not quite so hot on the convenience front.

The GW670 III is the third generation of Fuji's medium format rangefinder. As



RIGHT Using a borrowed exposure reading this shot has come out nicely

its name indicates, it produces a 6x7cm image on 120 rollfilm. Unlike the other cameras on test here, this model does not have interchangeable lenses. It is fitted with a 90mm f/3.5 Fujinon lens. This is the standard focal length for the 6x7cm format and equates to about a 50mm on a 35mm camera. This lens allows half stops to be set right up to f/32 and controls shutter speeds from 1-1/500sec. There is also a T (time) position. Beyond the fact that the camera takes both 120 and 220 rolls and is fitted with a hotshoe, PC socket, cable release socket, lens hood and spirit level, there is little else to say about its spec. So, a simple camera free from clutter and bother of built-in metering and modern gadgetry.

The Mamiya 7II, shares the Fuji GW670 III's 6x7cm format, but that's pretty much where the similarities end. An altogether more sophisticated beast,

LEFT A slightly wide standard lens is okay for some things but I really would have preferred something wider for this



the Mamiya 7II is supported by a range of lenses. Perhaps the most significant difference between the Mamiya and the Fuji is that the Mamiya needs batteries, which power an exposure meter and an electronic shutter. The clever electrics also mean we can have aperture priority, exposure compensation

and pretty lights in the viewfinder. This camera can also shoot 16 panoramic (65x24mm) exposures on 35mm film using a special insert.

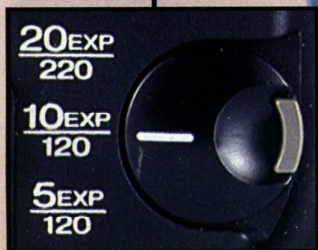
As the lenses are interchangeable, the maximum aperture depends on the optic you have fitted (though most lenses for the 7II open to f/4-4.5) but ►

Fuji GW670 III

'A simple camera free from the clutter and bother of built-in metering and modern gadgetry'

FILM LENGTHS

As with the other cameras, the GW670 III is set up for both 120 and 220 film. It also takes half rolls of five frames, though I've never seen this for sale



SPIRIT LEVEL

The spirit level is great if you are on a tripod, but impossible to see when the camera is used handheld



INSIDE

Again, easy to load. With the two pop-out film retainers, things are very straightforward



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MAIN DIAL

The main dial shows the range of shutter speeds available on the Mamiya 7II. This is also used to access aperture priority, AE lock and ISOs



MULTI BUTTON

Like the Bronica RF645, the Mamiya 7II offers a multiple-exposure button. This can be used without restriction



LENS RELEASE

Before the lens can be released you have to turn a handle on the camera's base to pull a dark curtain across the film area. This prevents light entering the mount and fogging the film

INSIDE

Loading the Mamiya 7II is as easy as loading the two other cameras tested here. With a little practice, you will be doing it in your sleep



Mamiya 7II

'The Mamiya 7II results are very pleasing indeed'

◀ shutter speeds are controlled through the body. It seems that the maximum speed a leaf shutter mechanism can manage is 1/500sec, while in the long exposure department this model allows you four seconds. The Mamiya 7II is fitted with a hotshoe and a PC socket for external flash, a self-timer that gives you ten seconds to get in position and a standard screw-in cable release socket.

The Bronica RF645 – which, as the name suggests, uses the 6x4.5cm format – is the newest of the cameras in this group, being less than a year old. Another electronic model, the RF645 offers a full program exposure mode in addition to aperture priority and manual. Manual shutter speeds are selected between 1-1/500sec plus B, but in the auto modes the range runs from 8-1/750sec. The camera offers an autoexposure lock and exposure compensation of $\pm 2\text{EV}$. With a PC socket

and a hotshoe, the camera is easily connected to external flash including the Bronica RF Speedlite (made by Sunpak) unit that is dedicated for this model. A self-timer is provided, as is a traditional cable release socket, plus an ME button.

RIGHT The Mamiya's exposure meter has made a nice job of this shot



RIGHT This is about as close as I could get with the 80mm lens



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MAMIYA PANORAMIC BACK

As an optional extra, Mamiya can supply 7ii users with a panoramic kit for use with 35mm film. This will allow you to take 16 images measuring 65x24mm on a roll of 36-exposure-length film. Basically, the kit consists of a mask to go over the film window and a pair of film guides to fit into the film and take-up chambers. These inserts serve to place the film in the right position to pass over the mask. You also get a rewind handle for the base. To match the mask, there are markings in the viewfinder so you know what you are going to get on the film. Following the markings takes a bit of work as they are not as easy to see as they might have been. It works well... but £133 for the kit is bit steep.



HANDLING

The handling of these cameras is of particular importance, as is ease of use and portability. Medium format SLRs are, in the main, built like bricks, weigh plenty and are slow and quite cumbersome to use. Tripods feature very high on the list of must-have accessories. The main idea of the rangefinder cameras on test here is that they are walk-around models. A tripod is still useful, but it's no longer a necessity.

The largest of the trio is the Fuji GW670 III. The width of the back suggests the 6x7cm format rather than the 6x7cm, while the height of the body makes you wonder what they have stuffed this simple hulk with. While the body is very solid and well made, the design is remedial to say the least. The oversized figures on the lens and its child-like, enlarged focusing ring are more reminiscent of Palitoy than Fuji, but the focusing is very easy to access.

Both aperture and shutter-speed controls are at the end of the lens barrel and, when the camera is not in use, are concealed by the pull-out lens shade. These two control rings butt up to each other and, though different to the touch, it is easy to turn one when meaning to turn the other – particularly when the aperture is set to the f/8 mid-position. As the dials rotate in opposite directions, you can move both together in the same direction while maintaining the same exposure value, but exposure bracketing can be more fiddly.

The GW670 III provides two shutter release buttons, one in the usual ►



	BRONICA RF645 £1,150 body only, £1,500 with 65mm	FUJI GW670 III £1,735	MAMIYA 7ii £1,022 body only, £1,733 with 80mm
Format	645	67	67, or panoramic
Image size	6x4.5cm	6x7cm	6x7cm, or 24x65 with 135 film
Country of origin	Japan	Japan	Japan
Shutter type	Electronically controlled leaf shutter in the lens	Electronically controlled leaf shutter in the lens	Electronically controlled leaf shutter in the lens
Shutter speeds	8-1/750sec plus B	1-1/500sec plus T	1-1/500sec plus T
Flash Sync speed	At all speeds	At all speeds	At all speeds
Exposure modes	Program, aperture priority, manual	Manual	Aperture priority, manual
Metering system	Centreweighted	None	Centreweighted
Sensitivity	EV3-18	NA	EV3-18
Exposure comp	±2 stops in 1/2 stop steps	NA	±2 stops in 1/3 stop steps
Bracketing	No	NA	No
AE lock	Yes	NA	Yes
Film speed range	ISO 25-5000	NA	ISO 25-1600
Focusing modes	Manual via coupled rangefinder - 33mm effective baseline length	Manual via coupled rangefinder - 44.3mm effective baseline length	Manual via coupled rangefinder - 34.2mm effective baseline length
Compatible lenses	Three in total; 45mm f/4, 65mm f/4, 135mm f/4.5	Fixed 90mm f/3.5	Six in total; 43mm f/4.5, 50mm f/4.5, 65mm f/4, 80mm f/4, 150mm f/4.5, 210mm f/8
Viewfinder marks	65mm and 135mm, 45mm requires additional hotshoe viewfinder	Guide marks for 90mm	65mm - 150mm, others require additional viewfinder
Viewfinder info	Shutter speed, aperture, flash ready, compensation warning, AE-L, ME warning, exposure warning	None	Shutter speed, exposure warning, safety lock warning, no film warning, no lens warning
Film advance	Single stroke manual crank	Two stroke manual crank	Single stroke manual crank
Multiple exposure	Yes	No	Yes
Dimensions	45.6x107.3x64mm	119x201x129mm	159x112x66mm
Weight	810g	1460g	920g
Details	Introphoto, Unit 1, Priors Way, Maidenhead, Berks, SL6 2HR Tel: 01628 674411	Fujifilm UK, 125, Finchley Rd, London. NW3 6HY Tel: 020-7586 5900	Johnson's Photopia, Hempstalls lane, Newcastle-under-Lyme, Staffs, ST5 0SW. Tel: 01782 753300

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Bronica



Fuji



Mamiya

ABOVE This sequence shows the differences in the angles of view for the standard lenses for each of the cameras: 65mm for the Bronica; 90mm for the Fuji; and 80mm for the Mamiya

place and one on the body's front. This does add some comfort when using the camera in the vertical position – but in such an atmosphere of Spartan handling, this is like adding head rests to a car with no suspension. Each of the

RIGHT The clip marks show that the Fuji goes right to the end of the roll

two release buttons produces the same hollow penny-in-a-tin-can response.

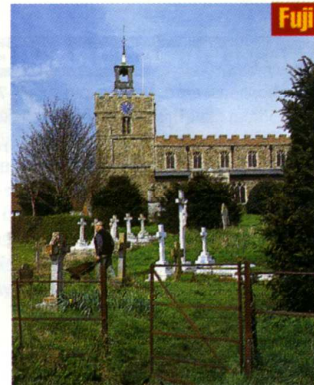
The viewfinder is bright and very clear, but free of any information other than the frame guidelines marked in bright white. A primitive but more-than-useable bright disk in the centre of the frame acts as a double-image rangefinder coupled with the lens focus.

I can cope with the Spartan and basic aspects of the GW670 III, but not the irritating ones... and the film advance mechanism nearly drove me nuts. You wind the film on in the normal way and prepare to take the next shot. You press the shutter and nothing happens. Then you swear as you remember that this camera requires one full wind and then a tiny one to get the film in the right place. During the whole test I remembered this before the next shot stage perhaps three times. Still, if you were using just this camera all the time you'd probably get used to it.

Handling the Mamiya 7II straight after the Fuji is like moving from a tent to the Park Lane Hilton. Sheer luxury? Well, not quite – but such a difference. The Mamiya has mixed enough technology with tradition to ensure your stay is as comfortable as possible. Its firm and well-designed hand grip inspires confidence immediately. The shutter button is well positioned on a sloping platform at the top of the grip. The (single-turn) winder flips out, Nikon style, to allow better access to the shutter-speed dial, which provides 360°+ rotation for speedier speed selection.

Some minor perplexity may be suffered by the first-time user confronting the locks that prevent the dismounting of lenses and the firing of the shutter if the safety curtain is not in its correct position, but routine and use will soon solve this. The safety curtain that shields the film from light when lenses are being changed is operated by a newly designed handle on the camera's baseplate. Rather inaccessible if you are tripod mounted (though Mamiya can cure this with a special accessory), it is simple to use and does not slow proceedings unduly.

The viewfinder is bright and well marked with frame guides for its various lenses. The viewfinder also shows information concerning exposure settings but these can be difficult to read depending on your viewing angle or subject brightness. The bright frame guides can also disappear when placed over a bright area of the subject. A minor point is that when you are using a lens that requires the extra hotshoe-mounted viewfinder on cold days, you might find your nose steams up the



Fuji

rangefinder window – making focusing more interesting than usual. Then again, maybe your nose isn't as big as mine.

Picking up the Bronica might give you a shock, especially if you use it straight after another camera. We are all used to having a landscape-format view through our cameras. However, as the RF645 uses the 6x4.5cm format on a 6cm wide piece of film, with the film travelling from left to right past the lens, it is necessary that the viewing window presents an upright, portrait-format image. It takes a while to get used to viewing the world through an upright rectangle, but it is quite refreshing. The only downside is that when you want to shoot in landscape format you have to turn the camera on its side. No big deal if you are handholding, but a bit of a pain on a tripod.

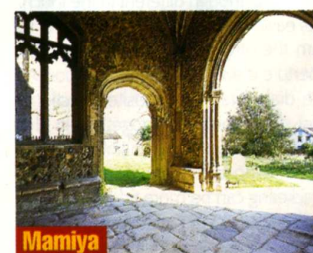
The viewfinder is very bright and the frame markings are very clear. Down the right-hand side of the viewfinder you will notice a brightly lit LCD panel displaying all the exposure information you will need. Easy to read and well positioned, this is very useful.

While changing lenses on the Mamiya 7II is hardly a drag, it could be argued that the operation takes longer than it does on a 35mm camera. Bronica has got over this issue with a safety blind that falls across the film as the

BELOW The metering systems of the Bronica and Mamiya are quite different in their responses to strongly lit scenes



Bronica



Mamiya

'The handling is particularly important, as is ease of use and portability'

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lens is twisted in the mount. It slides out of the way as the next lens is fitted.

PERFORMANCE

The main issues we will be looking at in this section are exposure metering, viewfinder accuracy and the cameras' abilities to function as cameras. The Fuji GW670 III has no meter so it would be unfair to judge the quality of its

exposures as, when using it in the field, I borrowed readings from the other two cameras. However, as they seemed incapable of agreeing on any particular scene I ended up shooting on and between various EVs.

One of the first things I noticed about the films from the Fuji was that I have lost the last frame on every roll. Either my processor was over-enthusiastic

RIGHT The Mamiya 7II has produced a lighter image but with more shadow detail than the image from the RF645. Which you prefer is a matter of taste

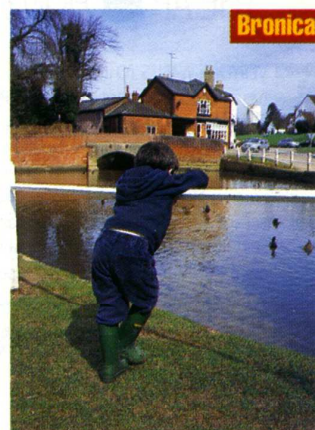
with the clips in the dark or the camera runs exposures dangerously close to the end of the roll.

The next thing I noticed as I studied the results under the loupe was the susceptibility of the GW670 III to camera shake. Using what is the equivalent of a 50mm lens, I would have expected to handhold down to at least 1/30sec without suffering too badly, but the clunk of the shutter and the travel of the shutter-release finger seem to have taken their toll. Not that the problem is a great one, but I have lost enough sharpness in many of the pictures to render them useless to me.

However, when using a faster shutter speed the full potential of the lens is displayed. It is pleasingly sharp and well able to pull detail from the most remote corner of the scene. The viewfinder also offers more than a passing resemblance to the scene being recorded on film and most of the in-finder cropping and framing was there in the images.

The results of the Mamiya 7II tests are very pleasing and show all the hallmarks of a well set-up exposure meter. With a touch of lightness to the exposures, this camera did the best job in situations where the lighting was particularly tricky. Shots containing large areas of shadow recorded with plenty of detail where the Bronica's readings only produced different intensities of black. In more general scenes, I think many readers would feel the transparencies would have benefited from a little more density and saturation – but only about 1/4 EV in most cases.

LEFT These shots were taken to study the sharpness of the cameras' standard lenses. Each has proved itself very capable, producing crisp images with plenty of detail and a pleasant level of contrast



Similarly, the Bronica RF645 tends to underexpose whenever you give it the chance. Thick, saturated colours and a leaning towards the highlights produces a slide that will lighten up in the (photographic) printing but look 1/4-1/2 EV too dark on the lightbox.

Both the Bronica and the Mamiya suffer from framing problems. Users will have to get used to the way things look and how they appear, and an instinct for getting closer will cut away the excess of photo flab around the subject area. Both the Mamiya and the Bronica gave very sharp images that don't mock the film formats. Between them, they can come up with a good exposure in every situation. **AP**

AMATEUR PHOTOGRAPHER VERDICT

If you are in the market for a medium format rangefinder, I suspect the first choice to make would be format – 6x4.5cm or 6x7cm? Each has its benefits and each has things that work against it. While 6x7cm is bigger, does the shape work for landscapes/portraits/still-lives? Also, 645 gives 50% more exposures per roll than the 6x7 (15 shots against 10). Next you would probably look at the spec. In basic terms of shutter speeds and apertures, these three cameras are pretty much the same. It is only in the handling – plus the features and functions – that each offers where real differences appear.

The Fuji is quite some camera, but it is slow to use and far from luxurious. The lens is good and the build is solid, but because of the lack of facility I would have expected it to cost less. For my money I would go for the Mamiya 7II as it offers the spec I need while delivering a big negative (and has that 35mm panorama option). In truth, though, the Bronica RF645 is a better camera. Its exposures are closer to what people want at the moment and it is generally easier to use and better laid out.

Damien Demolder

