

photoWORLD

Vol 1 No 4
Spring 2005



KONICA MINOLTA

Photo by David Kilpatrick

10% off repairs and servicing for Photoworld club members

The Konica Minolta Photoworld Club Camera Check Scheme runs all year round, taking the seasonal load off the service department. Service will give Club Checks 'absolute priority' and these will normally be accomplished within 3-4 days of receipt. This is great news but please be sure to allow a little more time – and please do not send equipment to the Kelso address.

As a Photoworld subscriber you have a permanent 10% discount off all repairs and servicing if you deal directly with Konica Minolta Photo Imaging (UK) Limited.

The Service Address is:

**Konica Minolta Photo Imaging (UK) Ltd
Service Department
Unit 7 Tanners Drive
Blakelands
Milton Keynes MK14 5BU.
Tel 0870 242 1222 Option 3**

If you ask for the discount, your membership status will be checked and validated. If this is disputed, you may ask the Service Department to check with us, and we will confirm your paid-up status or enable you to renew your subscription if has lapsed not more than six months ago.

Equipment under 1st year warranty can be sent in directly, accompanied by any document showing the date of purchase, including credit card statements etc, even if you have not returned your guarantee card. But you should always complete and return warranty documents after buying equipment.

Club Checks

The cost of a Club Check, inclusive of VAT and return insured carriage, is:

£18.68 for camera + lens
£25.85 for all video and digital products

Club Check tests include shutter speed accuracy, aperture accuracy, metering accuracy, and focusing accuracy. They also include checks for correct electronic operation,

film transport, AF operation, self timer, flash synchronisation and all other key operational aspects of the camera. External cleaning of camera and lens is undertaken, along with loose dust removal.

Equipment which passes the tests will receive a **Test Certificate** and may qualify for the **Extended Warranty** (right). If problems needing repair are found, you will be contacted with an estimate – the Club Check cost is deducted from the cost of the repair if you decide to go ahead. You also get your 10% discount. See also new information about direct repairs, below.

Direct Repairs

If you know your gear needs to be repaired, remember that a repair always includes a full service and a 6 month guarantee on the whole item. If you have equipment which you think needs repair, you can send it for a Club Check service, enclosing your payment.

You can also send items directly to the service department for repair estimates outside this scheme. Konica Minolta Photo Imaging (UK) Limited will accept equipment directly from readers and provide estimates, it is not necessary to go through a dealer. If the estimate is not accepted then a charge of £8.22 is payable for return.

There is a difference between the Photoworld Club Check and a Service. The check may show that your shutter speeds and so on fall within ISO tolerances, but a Service may allow adjustment to better than ISO standards. It also allows lubrication, tightening of screws, cleaning and adjustments.

Information on this page is printed in each issue for your benefit – please use it.
Call 0870 242 1222 Option 3 for service!

Extended Warranty

The **Minolta Extended Warranty Scheme** is available on new equipment. However, you may be able to take out an warranty on a camera which has just been repaired, or overhauled. The warranty is an optional extension of the usual six-month repair guarantee to a full two years. This offer is administered and underwritten by Domestic &

General Insurance Company. Some parts for older models are now no longer available, and Konica Minolta have to restrict these warranties to the list below. If your equipment is more recent, but now out of warranty, call the Service Dept for advice on 0870 242 1222 Option 3. If you wish to find out more about the warranty terms, ring Domestic & General's Helpline on 0181 944 4944.

Please note this is NOT the same number as for our Camera Equipment Insurance facility.

Please enquire to the Service Dept about earlier Konica products. We shall be publishing details for Konica owners in future *Photoworld* editions.



KONICA MINOLTA EXTENDED WARRANTY SCHEME

SLR BODY

Dynax 9, 7 and 5
800si, 700si, 600si
500si & Super
505si Super
300si, 303si
404si
X-700, X-370S

COMPACT

Zoom 70, 70EX
Zoom 90, 90EX
Zoom 105, 105EX
Zoom 115
Zoom 125
Zoom 150
Zoom Pico
AF-25, AF-35
F-25, F-35BF
F 35ST Super

AF FLASH

5600HS
3600HS
5400HS
1200AF Macro

AF LENSES

AF 100-300 (D)
AF 24-105 (D)
AF 75-300 (D)
AF 28-80 (D)

AF 35-70/3.5-4.5

ACCESSORIES

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VC-7, VC-6, VC-9

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MD 50/3.5 macro
MD 135/2.8 tele
MD 28/2.8
MS 100-300/5.6-6.7
MD 35-70
MD 70-210
MD 50/1.7
also 220X flash

VECTIS

Vectis 40, 300, 300L,
3000, 2000, 30, 25,
260, 200, 20, 100BF,
Weathermatic, GX-1,
GX-2, GX-3, GX-4. Vectis
S1, S-100, V lenses
400RF, 22-80, 50 macro,
28-56, 25-150, 56-170,
80-240, SF-1 flash

DIGITAL

Dimage 7, 5
Dimage S304
Dimage E203
Dimage E201

Dimage RD-3000

Dimage RD-175

Dimage 2330

Dimage 2300

Dimage V

Dimage 1500EX

Scan Multi, II, Pro

Scan Elite, II

Scan Speed

Scan Dual, II

Quick Scan, Plus

PHOTOMETERS

Flash Meter V Colour
Meter II Colour Meter
IIIF Flash Meter III, IV
Spotmeter F
Spotmeter M
Autometer IV-F
Autometer III, IIIN
Autometer III Flash

BINOCULARS

Activa: 8x42DWP,
10x42WP, 7x35W,
7x50, 8x40W, 10x50W,
12x50W, 7-15x35,
8-20x50, 8-22x27,
10-30x27, Pocket
8x25WP, Pocket
10x12WP, 8x25FM,





Contents Vol 1 No 4

Spring 2005

Page 7

Lens Review – 17-35mm f2.8-4 AF (D) and 28-75mm f2.8 AF (D).

Page 11

Technique – Getting the Light and Exposure Right.

Page 12

Photoworld Gallery, our space for your own pictures... with prizes of Konica Minolta film, inkjet supplies and CD-ROM media.

Page 16

Konica Infrared 750

A last look at this great – discontinued – creative tool. By John Boyes.

Page 19

Infrared Digital

Emmanuel Agbaraojo demonstrates digital infrared monochrome.

Page 22

Portfolio: Inside the Spectrum

Barbara Nash delights in the colours of the Luminarium.

Page 26

From Colour to Mono

Using *Dimage Master* and *Photoshop* software to create powerful b/w.

Page 29

Club Walks & Talks 2005

Shows and workshops with Duncan McEwan and Peter Karry.

Page 30

Quest Workshops

Page 32

Software – Dimage Master. A brief overview of the high-end utility.

Page 34

All the Fun of the Fête

John Fryer shoots a seasonal outdoor event for his local paper.

Page 37

Dimage Scan Elite 5400II

A first look at the updated scanner.

Page 38

Magicolor 2430DL – Konica Minolta's highly affordable colour laser printer.

Page 40

Photoworld Club Postal Lens Hire

Page 41

Battery Buster

Page 43

Free Subscriber Small Ads

Naturalised wallflowers at Maxwell Place – Dynax 7 Digital photograph with the 28-75mm f2.8 AF (D) lens by David Kilpatrick. A memorial, since by next Spring all this will be gone; the vegetable garden is to be a housing plot. No more crops of photographs!

Page 2

Service and Repairs Information.

Page 4

Who's Who – Konica Minolta Photo Imaging (UK) Ltd and Photoworld Club.

Page 5

MotoGP – Konica Minolta sponsors top speed bike racing.

Page 6

Products – Z5, Z20, E50, DT lenses.

KONICA MINOLTA

photowORLD

Published by

Icon Publications Limited
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Kelso, Scottish Borders TD5 7BB
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e-mail: iconmags@btconnect.com

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SUBSCRIPTION £19.95 PA (UK)

Tel: 01573 226032
Fax: 01573 226000

Subscription to KONICA MINOLTA PHOTOWORLD provides free membership of:
Konica Minolta Photoworld Club UK

With the support and assistance of
Konica Minolta Photo Imaging (UK) Ltd
Plane Tree Crescent
Feltham, Middlesex TW13 7HD

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Our thanks to Paul Genge, Bernard Petticrew and colleagues at Konica Minolta Photo Imaging (UK) Ltd for their help and support.

Whilst every care is taken of MSS and photographs submitted all submissions remain the responsibility of the sender. Return postage and packing must be included. The views expressed in this magazine are those of individual contributors and do not represent the views or policies of Konica Minolta Photo Imaging (UK) Ltd unless otherwise stated. All offers and arrangements made by the Club are subject to availability and limited to paid-up subscribers of KONICA MINOLTA PHOTOWORLD unless specifically stated otherwise.

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Who's Who @ Konica Minolta Photo Imaging UK and the Photoworld Club

The headquarters of Konica Minolta Photo Imaging (UK) Ltd are the former Konica offices at Feltham, Middlesex, close to Heathrow Airport, the M25 and London. In the most recent changes, warehousing has been moved from Milton Keynes to Feltham. From 1980 on, Minolta (UK) Limited was based in Milton Keynes and the **Service Department** remains there.

For Club members, your two most important contacts remain at Milton Keynes on a new 0870 telephone number:

Bernard Petticrew is Technical Support Manager, and has a database of information on Minolta products going back to the SR system and beyond. Bernard's personal knowledge of the earlier systems is unrivalled. He is also now able to supply replacement instruction manuals. His phone line is 0870 242 1222 Option 4.

John Baker is Service Centre Manager. You should contact John

with any queries about repairs or service in progress (it is not necessary to telephone before sending equipment in for a Club Service Check). He is on 0870 242 1222 Option 3 – alternatively, email service.help@ph.konicaminolta.co.uk.

The Konica Minolta Photoworld Club continues to be free to subscribers to *Konica Minolta Photoworld* (formerly *Minolta Image*). For membership queries or advice on photo technique and camera use, call **David Kilpatrick** on 01573 226032 or email iconmags3@btconnect.com.

Paul Genge, who has dealt with digital technical help in the past and will be known to many readers, is now Product Manager of Konica Minolta UK, and digital help lines are 0870 0104107 for the UK, 1850 946478 for Eire. Feltham is now HQ for both the UK and Southern Ireland.

The address for Konica Minolta Photo Imaging (UK) Ltd is:

**Plane Tree Crescent
Feltham**

Middlesex TW13 7HD
and the main switchboard number is 0208 751 6121.

We shall keep you updated on services for owners, contact names and telephone numbers. Please use the Konica Minolta web site, if possible, to look for solutions before calling directly.

The Photoworld Club

The Minolta Club of Great Britain was founded in the mid-1960s by Japanese Cameras Limited, and published its magazine *Photoworld* until shortly after the formation of Minolta (UK) Ltd, when the title was changed to *Minolta Image*.

With the merger of Konica and Minolta the magazine has been returned to its original name and the club is now the **Konica Minolta Photoworld Club UK**.

Organisers **David and Shirley Kilpatrick** are independent of Konica Minolta Photo Imaging (UK) Ltd and are directors of Icon Publications Ltd, based in the Scottish Border town of Kelso.

You can email David via iconmags@btconnect.com, or telephone 01573 226032 during office hours, for subscription help and general photo advice.

Web sites and email

There are Konica Minolta web sites operated in the UK, Europe, the USA and Japan. The correct web address to use is: <http://www.konicaminolta.co.uk/> but since the merger the sites continue to develop, and separate areas still exist for Minolta and Konica. At the time of going to press you can also access www.minolta.co.uk and www.minoltaeurope.com directly.

Technical support, software and firmware downloads, product news and information are all available on-line.

You can download digital camera samples taken by David Kilpatrick by visiting <http://www.pbase.com/davidkilpatrick>. You may need a password to access the galleries – this is **hypo1** or **hypo**.

There are Portable Document Format versions of articles of interest

to members available free on the Icon Publications Ltd direct web site – www.iconpublications.com. The password for printing any locked PDF files is normally **hypo** or **hypo1**.

There is also a European owner club site called **Konica Minolta Photo World** which requires registration (a simple process of filling in an on-screen form) to use. This is at: www.konicaminoltaphotoworld.com and is available in English, French and German. There are monthly competitions which can be entered on-line, together with all the latest product information, a range of technical background articles and some profiles of Konica Minolta users.

You can join a Minolta discussion group at www.yahooogroups.com; fill in Yahoo membership, which is free, and you will find this group founded in 1998 now has nearly 5,000 members.

There is another Web Minolta mailing list called the Minoltians, available at www.theminoltians.com, with on-line galleries.

Copies of manuals

Bernard Petticrew is once again in charge of the archive of instruction manuals which can be supplied to replace missing ones. While some older camera manuals may be available, others are not and it is essential to telephone first.

Compacts – £3.50

SLRS – £5

Digitals – £10

Call him on 0870 242 1222 option 4 if you need a replacement manual.

Technical Help

Digital – UK 0870 0104107
Film – 01908 208 325

Brochures/Stockists

stockists 0208 751 6121

Service and Repairs

0870 242 1222 Option 3

Camera Manuals

0870 242 1222 Option 4

Photoworld Club

01573 226032



Need reliable on-screen colour?

If you are reading this, it probably means that you have been trying to print photographs from your computer and are unhappy with the results. You've tried adjusting your monitor and printer, and still you are getting poor results.

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Konica Minolta sponsors 300 km/h race action

Konica Minolta is to sponsor top motorcycle racing – one of the most photogenic subjects because of the human aspect of visible riders.

Konica Minolta Holdings, Inc. is to sponsor a new racing team “JiR” (Japan Italy Racing) participating in the world’s most prominent motorcycle road racing, the World Championship MotoGP Class this year. The new team will be named “Konica Minolta Honda team,” and the Japanese rider, Makoto Tamada, will race with this team. Tamada was successful in taking two wins at the World Championship MotoGP class last year, and there is an expectation that the team is challenging to win the annual championship in 2005. Through this sponsorship, Konica Minolta aims to show its active corporate image worldwide and increase its brand recognition and brand image.

The MotoGP is one of the top three sporting events in Europe together with F1 and football. In Japan, its popularity is growing with Tamada’s success in the Japanese GP last September giving it a boost. The internationally recognized MotoGP has the top class exposure in terms of broadcasting, audience, and visitors (approximately 1.6 million). Backed by such popularity, and teaming up with equally high profile Honda machines, Konica Minolta looks to have picked a good vehicle for publicity.

About MotoGP

MotoGP, promoted by FIM (Federation Internationale de Motocyclisme), is the world’s most prominent series of annual motorcycle road racing event held in five continents. Its official name is “FIM Road Racing World Championship Grand Prix,” and the Konica Minolta Honda team will participate in the highest MotoGP Class. This year, the racing events will take place in “Twin Ring Motegi” in Japan, and such circuits as Sachsenring (Germany), Jerez (Spain), and Assen (Holland) in Europe. The race will also be held for the first time in Shanghai (China), and for the first time in eleven years in Laguna Seca (USA).

MotoGP is the world’s premium motorsports for its speed, high technology, and internationality.



Top: action shot on the track with Tamada riding. Above: Tamada at the European launch of the team colours.

The machines compete in maximum speed of more than 300km per hour, which is the same level as F1. This calls for a fusion of top-notch engine and machine technologies, and exceptional skills on the part of the rider. It is widely broadcast in about 200 countries and viewed by 5.2 billion enthusiastic racing fans.

About Tamada

Makoto Tamada, 28, began riding a pocket bike at the age of nine, qualified as an international A class rank in 1994, and since 1995, started his career in All Japan Championship and constantly ranked in high positions. From 2003, he moved to the world stage to join the most prominent motorcycle road racing MotoGP Class

and ranked 11th with powerful racing from the debut year. In 2004, he took two wins – the first in the Brazil GP, and the second in Japan GP. He is one of the most promising riders to mark high ranking this year as well.

In 2003, he made a debut in the World Championship MotoGP Class, ranking in 11th. In 2004, he was ranked 6th in the World Championship MotoGP Class (won twice, placed second once, won prizes several times).

He will be riding for Japan Italy Racing, a Monaco-based team, whose president is Tetsuo Iida and General Manager Gianluca Montiron. Tamada will ride just one machine, a Honda RC211V with Michelin tyres.

MotoGP Calendar 2005

Date	Grand Prix	Circuit
April 10	Spain	Jerez
April 17	Portugal	Estoril
May 1	China	Shanghai
May 15	France	Le Mans
June 5	Italy	Mugello
June 12	Catalunya	Montmelo
June 25	Holland	Assen
July 10	USA	Laguna Seca
July 24	Britain	Donington Park
July 31	Germany	Sachsenring
Aug 28	Czech Rep.	Brno
Sept 18	Japan	Twin Ring Motegi
Sept 25	Malaysia	Sepang
Oct 1	Qatar	Losail
Oct 16	Australia	Phillip Island
Oct 23	Turkey	Istanbul
Nov 6	Valencia	Valencia

There is a website with updated news and photographs from the latest events as they pass.

<http://konicaminolta.com/motogp>



Dynax 7 Digital wins DIWA Gold Medal award



Digital Imaging Websites Association (DIWA), an international organisation of websites focusing on digital imaging, has announced a DIWA Gold Award to the Konica Minolta Dynax 7D. The gold medal represents the highest level of performance and is a summary of numerous rigorous tests conducted by DIWA camera experts.

Their news announcement summarises the decision:

“With the Dynax 7D, Konica Minolta makes their debut into the fast growing market of digital system cameras. Founded on a long history as high quality camera and optical manufacturers, the high performance Konica Minolta Dynax 7D comes as no surprise.

“It continues the legacy of the highly successful and reputed analogue Dynax SLR cameras, with distinct design resemblance to make the conversion from film to digital as smooth as possible for any experienced Dynax enthusiast. Supporting the full range of existing AF lenses, the Dynax 7D also eases the financial aspect.

“Regardless of its background, the Dynax 7D makes an impressive performance, all by itself. Its exterior is robust and solid as a professional camera, introducing a huge 2.5" LCD screen with an innovative, rotating camera settings display. Professional is also the 6.1 Megapixel resolution with RAW or RAW+JPEG file formats. Yet, the most revolutionary feature is the built-in CCD Anti-Shake image stabiliser, the first ever in any SLR camera. Add to this a highly efficient AF system, fast overall camera response and burst shooting, as well as the new CxProcessTM III image processor for outstanding image quality.

“The conclusion from the DIWA experts is that Konica Minolta’s late D-SLR debut was well worth waiting for. Fierce competition is no threat to the Dynax 7D. It stands out from the crowd and is bound to win many new friends”.



Z5 cures the shakes – and Dynax 7 Digital gets the ‘DT’s...

THE ‘Z’ line of Konica Minolta digital cameras has moved on and up to 5 megapixels with the new Dimage Z5 and Z20.

The Z5 has a CCD-Shift Anti-Shake System, 12x optical “Mega Zoom”, Fastest-in-Class rapid AF, and large, easy-to-View 2.0 inch LCD. The Z20 has an 8X zoom, no Anti-Shake, but exceptional economy with batteries at 450 shots on a set of four AA alkalines.

The 12x optical zoom and 4x digital zoom of the Z5 combine for a total 48x zoom. Anti-Shake – the same as used on the Dynax 7D and Dimage A200 models – is particularly effective at high zoom factors. It allows shutter speeds four to eight times longer for steady, shake free images of evening or other low light subjects as well as extreme tele views in normal light, without a flash or tripod.

Focusing in only 0.2 second (approx.) at wide angle and only 0.3 second (approx.) at telephoto, the Z5 is ideal for capturing any subject, moving or static. Both new models are very fast in operation.

The Z5 2.0 inch LCD monitor makes navigating menus easier and allows you to see exactly what you’re shooting. In addition to Rapid AF, the Dimage Z5 has fast startup, short shutter release time lag, Ultra-High-Speed Continuous Advance, Progressive Capture, and Real Motion monitor for smooth display on the LCD. High-resolution VGA movies can be shot that look as good as TV images. These movies are also shake-free thanks to the Anti-Shake function.

The Z5 optical zoom delivers a focal range equivalent to a 35-420mm range and the Z20 equals 36-290mm. 26mm wide-angle shooting (35mm equivalent) is possible with the optional Wide Angle Converters ZCW-300 and ZCW-200 respectively. In Super Macro mode, you can position the lens as close as 1 cm from your subject.

The Dimage Z5 also offers improved AF accuracy through 5-point Area AF and records movies in VGA resolution (640x480) at 30fps with sound. You can also choose from other, lower resolution movie image sizes. The Anti-Shake function works with the movie function. The XR (Extended Recording) Movie function lets you record movie clips onto the SD memory card as long as

New lenses and cameras launched



Above:
the new
Dimage
Z5.

Left: 2.5
inch
LCD
screen
on the
E50.

its available capacity. The Z20 has movie recording but without sound.

Both cameras have special features for action photography, includes a Progressive Capture mode where you keep shooting until a sequence ends, and only the last few images are recorded to card.

The Z20 has the unusual feature of 14.5mb internal storage and can shoot without a memory card loaded.

There are four exposure modes – Program, Aperture Priority, Shutter Priority, Manual – on both cameras. The new cameras can be connected directly to a PictBridge compliant printer for direct printing.

The Z series has now matched the earlier Dimage 7Hi and its predecessors in many ways, but remain able only to shoot JPEG images – they do not produce raw .MRW files. For many users this is no disadvantage and the cameras can be recommended as general all-purpose ‘walkabout’ digitals.

New DT zooms

Three brand new DT zoom lenses for the Dynax 7 Digital and future DSLRs with the APS-C sensor size have been announced by Konica Minolta. ‘DT’ means they do not cover the entire film frame, and should not be used on film SLRs. They are a favourably priced 18-70mm f3.5-5.6(D), an ultra-wide angle 11-18mm f4.5-5.6 (D), and a wide to long tele range 18-200mm f3.5-6.3 (D).

Konica Minolta has “laid down new development principles for interchangeable lenses for Dynax Series”. Plans are to launch the DT lenses in summer to autumn of 2005.

Here are the principles, which look very encouraging for owners of SLRs whether film or digital, and confirm the future development of high-end optics with SSM-like AF:

1) Establish a lens line-up that covers both APS-C and 35mm formats

Konica Minolta will develop both wide-angle lenses for APS-C format and conventional 35mm format lenses so as to meet wide variety of consumers’ needs.

2) Develop lenses with unique features realized by only Konica Minolta

Konica Minolta will develop lenses incorporating such features as seen in the large aperture “G lenses” and “STF” lenses.

With its unique body-integral Anti-Shake function, Konica Minolta will develop a variety of lenses which enable you to expand your photo-shooting opportunities.

3) Always research and develop new technologies

Research and develop new technologies such as an actuator to enable noiseless drive by new principle of operation, with which we make effort to equip our products.

The DT Lenses are of a new standard that adopts an optical system optimised for digital SLR cameras, including the Dynax 7D that incorporate an APS-C size CCD. All three lenses have sufficient image circle to work with the Anti-Shake system, and incorporate the ADI.

“Konica Minolta will continue to develop digital SLR camera bodies and interchangeable lenses, and sequentially upgrade systems”, their March press statement concludes.

Big screen E50

The new E50 – a shirt-pocket style 5 megapixel model with 3X optical zoom – has one compelling feature, a 2.5 inch LCD screen similar to the Dynax 7 Digital, allowing a very large view of each shot (for composition as well as review) ideal for users with less critical eyesight.

It has many of the features of the new 5 megapixel Z series models too, including a movie capability and PictBridge compliance, but it not aimed at fast action sequences or extreme macro and telephoto situations. It’s a much more portable, pocketable camera for travel and general family or business use.

The E50 is priced at £199.99, the same as the Z20, while the Z5 in black or silver is £349.99. The Dimage A1, Z2, G600 and G530 are all now discontinued. The X50 is now available in Blue and Gunmetal Grey colour choices.

A perfect pair: using the new 17-35mm and 28-75mm lenses



by David Kilpatrick with Photoworld reader pictures

SUCH was the demand for the new 17-35mm f2.8-4 and 28-75mm constant f2.8 AF (D) lenses – launched at photokina 2004 with the Dynax 7 Digital – that our test samples only arrived this month (their lens caps still living in the offices of some national photo magazine!).

In the meantime, I have been viewing many images from Photoworld readers sent in as a response to email requests for examples.

The 28-75mm, as I have now found, has superb fast focusing and the 17-35mm excellent geometry – as this page should show. With the lenses at last on my desk – and cameras – I can see good reasons to move on to a new generation if you own

Above: the 17-35mm used at 17mm has excellent straight line rendering and illumination across the frame at full f2.8 aperture; with a shutter speed of 1/10th, Anti-Shake played its part. Photograph by Andy Johnson. Below: New Zealand Photoworld reader Alan Kerr shot the rapids below using the 28-75mm, exposure at 75mm was f8, 1/800th.



older AF optics and have invested in the Dynax 7 Digital. I know this is almost heretical. Surely one of the great benefits of the D7D is that it can use all your lenses back to 1985?

In my report on the D7D, I hinted that results with modern ADI (D) lenses and higher end specifications such as the 100-300mm Apo zoom might well be superior to those from older lenses which are excellent on film.

After several months of D7D use, I can confirm this. My 50mm f2.8 macro is very sharp but in the studio, large white backgrounds create a central flare spot because its rear element was never designed to cope with reflections off a CCD sensor. My 70-210mm f4 original has a lovely image quality but produces purple fringes from twigs against bright sky if used wide open on the digital sensor.

And so on!

The two new lenses are full frame. They are not to be confused with the 'DT' lenses about to be available, which just cover the digital sensor. The 17-35 and 28-75 are ideal for film use as well.

Both focus with far greater accuracy on my D7D than any of my older non-D lenses. They appear to be matched to the autofocus system of the camera. They also focus extremely rapidly.

Anti-shake performance appears to be considerably improved, especially when comparing results from the 28-75mm set to around 50mm and used at close range, with the old non-D 50mm macro.

I have also tested several independent lenses for digital sensor coverage (APS-C format) over the last few months on other systems, and can comment that the economy in price is often reflected in economy of performance. Generally, they are sharp – lenses for digital use HAVE to be sharp – but geometry can be unsuitable for architectural work. A typical 18-125mm lens for APS-C will have a strongly curved image at telephoto settings as well as wide. The 17-35mm and 28-75mm have a combined cost three and half times that of the particular lens I have in mind but the final image is simply in a different league entirely.

With a lens yielding good straight lines – such as the 17-35mm used at its 17mm focal length – simple perspective corrections in Photoshop (see the centre panel on this page) are rapid and perfect. A lens with poor geometry needs a special plug-in for Photoshop to cancel its dished or bulging straight lines.

The next question must be: will Konica Minolta's DT lenses be better?



Emmanuel Agbaraojo took the shot above with the 17-35mm at 17mm. Because the lens has excellent geometry, an architecturally perfect version can be made by distorting it in Photoshop (left) to produce the final image below.



We shall have to wait and see. I expect the 18-70mm to be a budget kit lens, favourably priced, and with a performance similar on the digital format to the existing 28-100mm on film. That will mean pretty good and not bendy. The 11-18mm wide angle is a purpose built wide angle and again, I would expect a high performance. The 18-200mm? Well, I might buy one, because of the convenience of a 28-300mm single lens. But unless Konica Minolta can work miracles, this extreme range will mean more distortion and vignetting (light fall-off) than the 17-35 and 28-75mm.

Light fall off in a lens is impossible to avoid, but generally speaking designs with very large front elements are better than those which aim to be compact. The 17-35mm has a 77mm filter thread and displays excellent illumination even on the full 24 x 36mm frame. Used on the D7D, there really is no fall off at all. Considering its f2.8 aperture at 17mm, half a stop faster than reasonably expected, it's an outstanding design.

The 28-75mm has the same advantage but its strength lies in speed and image quality. The circular aperture produces very attractive out of focus imaging ('bokeh') which makes it the perfect portrait lens. The focal length range is equal to 42-112.5mm in 35mm frame terms, with a constant maximum aperture of f2.8.

It would be hard to find a better portrait lens and it's great for wedding photographers, who also have the benefit of the D7D's 'High' key shooting mode which ensures perfect detail in wedding dresses.



While fairly expensive and substantial in size, the 17-35 and 28-75 offer a premium performance, comparable to earlier G series zooms but optimised for digital SLRs to cut internal reflections and colour fringes

The 28-75mm with petal lens hood is f2.8 maximum all the way



Above: photographs by Emmanuel Agbaraojo using the 28-75mm f2.8 lens. The main picture is at 75mm, f4 aperture, displaying superb colour from the Dynax 7 Digital and a very smooth out of focus image. The portrait is at 60mm, f3.5, the same aperture as used for the daffodils and wood at 28mm. Performance is very consistent through the range and the fluid look of the images matches the best that film can achieve. Below: the 28-75mm is an ideal lens for mountain country landscape photography with its effective 42-112mm range. Alan Kerr (www.southernlightsphotography.net) shot this view at Paradise, near Queenstown, NZ.



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The essentials of imaging

Getting the light and exposure right

Timing your shot, and using controls, for better results



Digital pictures have latitude in just the same way that film images so. The 'raw' image which comes from the sensor of a camera like the Dimage A2 or Dynax 7 Digital contains far more information than a JPEG file, but like a negative, it can not be viewed until processed.

When you shoot JPEG images only – with no raw .MRW file – you must be extra careful to get exposure and colour settings right. It is like using slide film where bracketing, careful metering, and use of colour balance filters can fine-tune the end result.

The two shots above are taken using the Dimage A2 as JPEGs. The auto exposure has been influenced by a dark area right in the middle of the shot – where the camera bases most of its exposure reading. So the normal shot on the left, in Program mode without adjustment, has a burned-out sky and bleached highlights. Setting an exposure correction of -2 produces the perfect result on the right. If you shoot JPEGs, you need to make corrections like this for some situations. Check the image on the camera's screen, adjust the \pm compensation setting, and shoot again.

The pair of pictures top right shows how the white balance setting and patience with the light can improve a picture in a more subtle way. The top example is a normal Dimage A2 shot taken at 5.00pm using Auto White Balance. The second example below was taken at 5.05pm – just five minutes for the sun to move round and pick out more of the stonework – with the white balance set to Daylight.

This means the warmer colour of the late afternoon sunshine is recorded properly, instead of being compensated for and neutralised. It also shows the colour of the

stone more sympathetically, though probably not as accurately.

If either of these pictures had been taken using RAW+JPEG or just RAW setting on the camera, it would have been possible to make the same adjustments later. The JPEGs remain fixed, with any exposure errors permanently uncorrectable. The RAW files offer scope for adjustment.

The two images at the bottom right are a JPEG and a RAW file from the Dynax 7 Digital. The shot was badly overexposed, and the top result is what you would get on a JPEG. There is no way to alter this.

By using Adobe *Photoshop CS Camera Raw Plug-In* to read the .MRW file of the same shot, the bottom result was produced. A setting of -4 (minus four) stops was used in the Exposure control. Very few digital cameras have this kind of latitude – the Dynax 7 Digital is one of the best. Its raw files contain a great deal of highlight and shadow information which can be extracted using various methods. The supplied *Dimage Viewer* software limits this function, as expert use can lead to odd effects and colours. *Dimage Master* allows a normal level of highlight recovery. For maximum exposure correction, the plug-in supplied by Adobe for *Photoshop CS* and *Elements 3.0* is the best choice we have found.

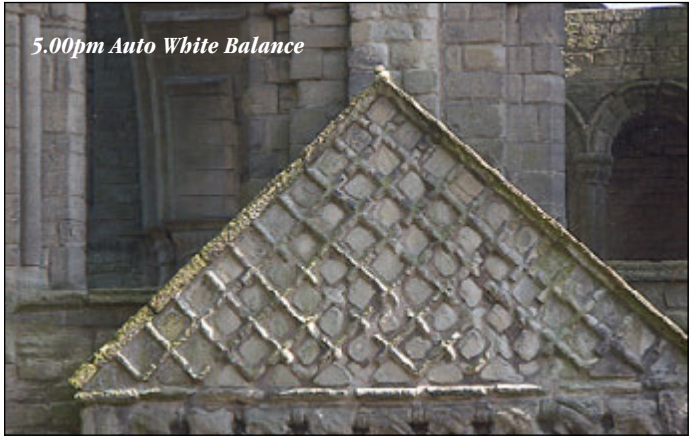
However, even when shooting RAW, it is best to adjust the exposure in the camera. Use the screen to review your shots and spot over or under exposure, and shoot again for a perfect result. This always results in the best colour, lowest image noise and ideal camera settings.

Perhaps you will see from the last example why RAW is an insurance policy against exposure mistakes!

– David Kilpatrick



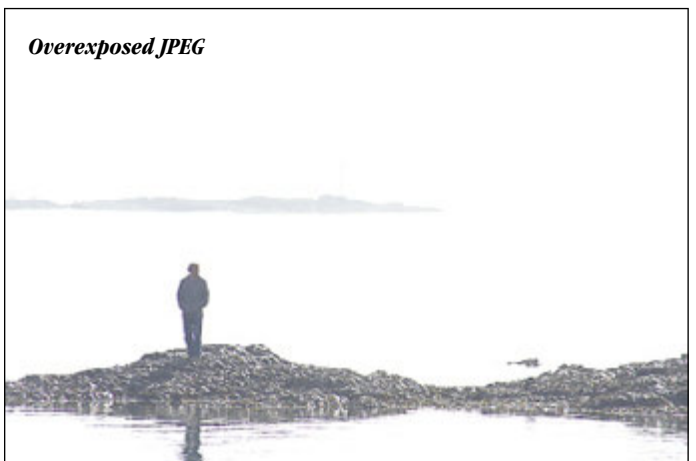
5.00pm Auto White Balance



5.05pm Daylight White Balance



Overexposed JPEG



RAW corrected from same shot



photoWORLD gallery

Earn Konica Minolta film, inkjet paper & CD-R media with your pictures



Being a seasonal magazine, we kick off with a Spring shot – of course – which we all hope to find and too often miss getting before it's too late!

You may now enter pictures taken on Konica equipment as well as Minolta, and this is retrospective – vintage Minolta pictures were always eligible, and the same goes for vintage Konica.

You may also enter pictures from other camera brands made on Konica films and (if colour negative rather than slide) processed and printed by a Konica photofinisher, normally a High Street mini-lab using Konica paper and chemicals. See the new entry rules on page 13.

Each picture used will receive a prize of Konica Minolta supplies – £6 35mm slide film, 35mm colour negative film, inkjet paper or CD-R media. Film entry winners will be sent films, and digital winners will be sent paper or CD-Rs (or both). The prize packs are at the discretion of Konica Minolta Photo Imaging (UK) Ltd.

As always, all entries remain your own property and we require only single rights use in the context of the *Photoworld Gallery* pages. Slides are returned (you must send return p&p); prints and digital entries are only returned if you ask for them to be, and enclose return p&p.

Left: timely for some of you, late for others, as blossom and daffodils can surprise us in February or linger into May in different parts of the country. A good springtime shot by Tony Jones, using a Dimage A1, 1/1000th at f4.5 (ISO 100). Tony, from Goring-by-Sea, West Sussex, preset -0.7 exposure compensation to get the correct density for this shot at 180mm equiv. zoom.



Michael Dalbousie shot the Roman baths in Bath using the qualities of gas flare light on daylight colour balance setting with his Dimage 7i. The exposure was 2/3rds of a second at full f2.8 aperture, ISO 200. David Jenkins used correction and diffraction grating filters for his light bulb on slide film – X-700 camera with a 90mm macro lens, 1/30th at f8. Two very different uses of artificial light!

Gallery Rules

You may enter a maximum of three slides, three prints and three digital images every quarter. Slides must be in non-glass mounts, clearly labelled with your return address on each slide, and protected in a plastic sleeve or wallet. Prints must be no larger than 12 x 8"/A4, on glossy photographic paper NOT inkjet paper, unmounted, with name and address and caption details on the reverse. Digital images should be on a Mac/PC readable CD-R, in RGB JPEG or TIFF form, file resolution set to 300dpi and should be a minimum of 1600x 1200 pixels in size. A printed contact sheet, or reference prints, must accompany your CD.

Slides must be accompanied by return post and packing; prints and

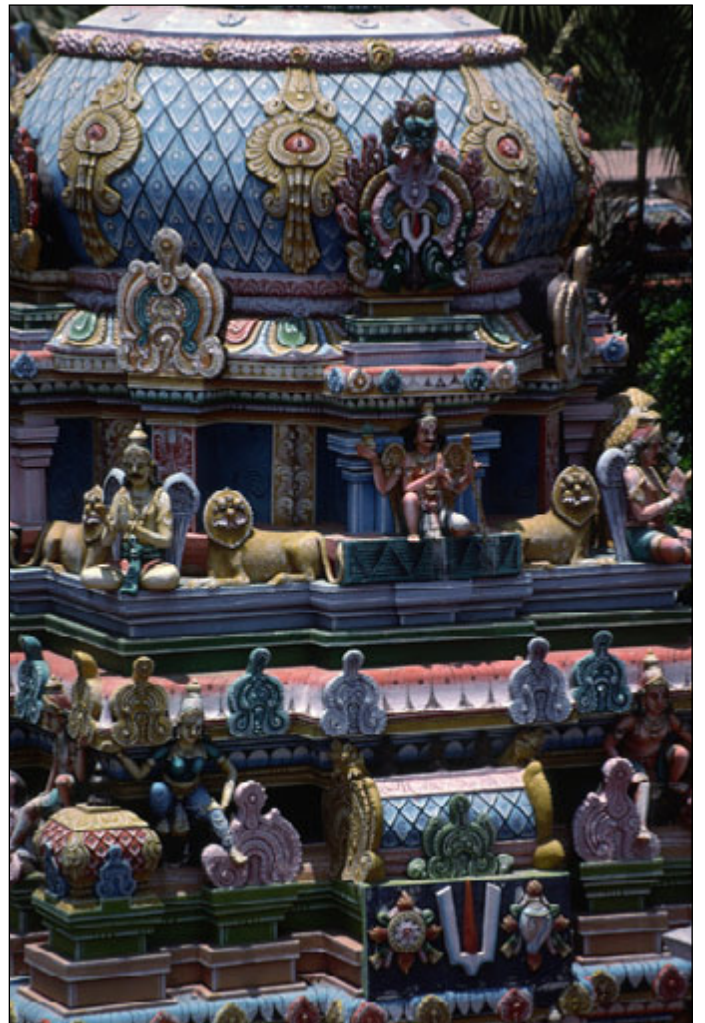
digital entries should be accompanied by return post and packing only if you require their return. Otherwise, they may be filed or destroyed as seen fit. Konica Minolta Photo Imaging (UK) Ltd and Icon Publications Ltd accept no financial responsibility for the receipt, safety or return of entries.

We suggest entries are sent in within two months after receiving your magazine at the latest, but it's best to enter shortly after getting your edition. You may send digital entries consisting of high quality JPEGs from digital camera or scanner to iconmags@btconnect.com stating 'Photoworld Gallery Entry' in your email subject header, and including your postal address and all caption details in your email.





Backlight – especially on subjects like spider webs and fountains as shown above – calls for care with exposure. It is almost essential to use minus compensation for such shots against the most effective dark backgrounds. On the left, webs on fir tree by Michael Dalbousie of Milton Keynes. Dimage 7i, 1/180th at f4.5, -0.3 exposure, 190mm equivalent focal length. Right, fountains from a slide by D Sheldrake of Norwich, Dynax 600si with 28-135mm zoom. Below left: simple close-up impact from Barbara Henry of Walls, Shetland Isles. The Galley Head at the Up-Helly-Aa festival in Lerwick. ‘A ‘Norse’ galley is burned after almost a thousand guizers, led by the Jarl squad dressed as Vikings, hold a parade through the streets carrying flaming torches. The festival celebrates our Norse ancestry, and traditionally marks the end of the long dark winter nights, meaning Spring is on the way”, says Barbara. Dimage A200, 1/200th at f5, ISO 50, AS, about 24mm equivalent focal length. Below right: Dravidian temple, Tamil Nadu, India, by Peter Karry; Dynax 5, 24-105mm AF, Kodachrome. Dimage 7i, 1/180th at f4.5..





We have selected two images from Chris Mole of Danehill, Sussex, for this Gallery edition – both the black and whites on this page. The quality Chris achieves from his Dim-age A1 is exceptional. He used a ball-stopping 1/4000th of second at f7.1 for 'Chip Shot', taken on a cliff top near Broadhaven, Pembrokeshire... but the ball was added later with Photoshop! 'Wind Shape Sea' was shot using 1/320 at f6.3 at Freshwater East, Pembrokeshire, and both shots were translated into b & w using Photoshop.



Shooting Ghosts

In 1997 I read an article in *Practical Photography* about Konica's IR 750 infrared emulsion. I was already a keen black & white landscape photographer but the images I saw of ghostly creamy white foliage, white fluffy clouds, deep black skies and a beautiful grainy tonality made me want to try out infrared (IR) photography for the first time.

'Ghostly' IR images are unique to these emulsions. The effect is due to the capture of infrared light waves which are invisible to the human eye. Of course, focusing and metering something your camera or meter can't see presents its own difficulties!

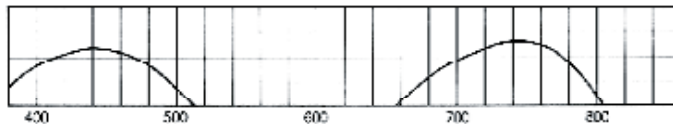
Film stock

At that time there were only two choices for black & white IR work, Kodak's High Speed Infrared (HIE) emulsion or Konica's 750 IR emulsion. For me, and I expect for many of us, 1997 was "pre-internet", so all research on the handling of these emulsions was gleaned from magazines and textbooks. Although I had a darkroom set up I was wary of diving in with both feet and trying the Kodak HIE. It was reported as being a bit troublesome to handle (needs loading in complete darkness) and also needed a Wratten #87 or #89 filter to bring out the IR spectrum which meant a nearly opaque filter that would make focusing with the filter attached nigh on impossible.

Konica's 750 on the other hand, was said to be more forgiving and easier to get started with. You can load the Konica in subdued light without fogging it and it is a sharper emulsion than the Kodak. I also liked the fact that the Konica 750 would give IR results with a standard Wratten #25a red filter, something I already had in my arsenal.

The IR effect is not as strong as Kodak HIE but it is much better than the Ilford SFX200 'far red' emulsion introduced a few years later. It also has finer grain than the Kodak HIE and the 25a filter would allow focusing and composing with the filter in place. As I was going to shoot landscapes well stopped-down, I used the standard hyperfocal distance focusing technique. However, if you're shooting an element of a scene close up you should use the IR marker if present on your lens (normally an offset red line) as a guide to the difference between

John Boyes shows the effects possible using the infrared black and white film which made Konica a fine art favourite



Wratten Filter Number	ISO to set on handheld meter
None	32-50
Red 25A (8X Red)	8-12
Red 29	8-12
IR series 89B	6-8
IR series 88A	4
IR series 87	2
IR series 87C	Not recommended



John's subject was Petworth Park in West Sussex. Top: 35mm and 120 Konica Minolta Infrared 750 film, and its sensitivity to blue light plus 750-820nm infrared, with a gap. This means an ordinary red filter can be highly effective.

focusing IR and visible light waves.

According to the article, the Konica 750 emulsion was only made in small quantities once a year and was quite hard to get hold of. I rang round a few dealers from the back pages of the photo magazines and found one who had a few rolls of

the 35mm 24exp size in stock. IR 750 also came in 120 format.

The film was last made in 2004, though some dealers continue to have deep-frozen stocks – and it remains possible that future batches will be made (none has been produced in 2005). The closest equivalent

today is probably Maco 750 IR film from Germany, sold on-line by Retro Photographic – www.retrophotographic.com. They also make an even more extreme infrared film sensitised to 820nm and can supply infrared filters. The previously mentioned Ilford SFX 200 is still available but do not expect the same dramatic results as shown here.

Exposure

The Konica emulsion was rated at an ISO of 32-50 with no filter in place! That's slow by anyone's standards and so the use of a tripod was mandatory. The effective ISO will vary depending on the filter used – see table (left),

I decided to use my Wratten #25a filter to give me IR plus the red wavelengths of the visible light spectrum in the shots. With a filter-factor of 8 on a 25a this means an extra 2-3 stops exposure to compensate for. Metering with an external meter therefore gives an effective ISO of 8-12 but if using TTL metering, setting the camera to ISO 50 is a good start for a bright sunny day. However, IR photography is a much less precise science than visible wavelength photography and some wide experimentation is called for! IR light is outside the visible spectrum, and both intensity and strength of the IR light can vary with the weather, time of day, and even time of year. Bracketing exposures is the order of the day with IR photography.

The location

At the time I lived on the Surrey/Sussex border and I had the ideal candidate for a series of IR landscapes about 10 miles away: Petworth House & Deer Park, located on the A283 just north of Petworth village in West Sussex. It is a magnificent 17th Century National Trust managed House set in a vast park landscaped by Capability Brown and immortalised in paintings by J M W Turner. The Deer Park is open 24/7 all year round and the house is open to visitors from March to October all week (excluding Thursday/Friday). Entry to the Deer Park is free and current admission prices for the House can be found at www.nationaltrust.org.uk

I had the film, the filter and the base for experimentation; all I needed now was the right weather! A beautiful May day with strong sunlight, blue skies and fluffy cumulus clouds





saw me pack up the equipment and head for the park about 10am. After reading as much as I could about the emulsion I decided to set an ISO of 16 with the 25a filter. The reason for this was that I wanted to hold the detail in the highlights. I planned to bracket a whole stop either side of the metered exposure anyway so I figured that one of the exposures would nail it on the head!

I used a handheld meter dialled down to ISO 16 in incidence mode to meter the light falling on the scene and set the shutter speed and aperture. I metered 1/8th second at f16 and because I was metering manually, I varied the shutter speed to bracket. If you meter through TTL, start at ISO 50 and bracket by shifting the ISO to 25 and 100.

I spent a good 3-4 hours there, walking for what seemed like miles and waiting for the sun to break through the clouds to get the maximum IR effect. I only shot one roll of 24-exposure film that day, choosing to compose carefully and wait for the light.

Dev & printing

As with exposure, developing IR film is also a case for experimentation. My developer of choice was Ilford ID11 (the same basic formula as Kodak D76) diluted 1+1 at 20°C. I normally shot FP4, HP5 and Tri-X and I chose to develop as if the film was FP4. This produced a very good tonal range in the negatives, if a touch on the contrasty side. Others have reported good results by using Agfa Rodinal at 1:50 for 11 minutes or D76 1:1 at 13 min and the film packaging suggests some other combinations. If you find Konica 750 available, use this guide,

Early summer deciduous tree foliage is often the brightest in infrared light – this willow tree is a classic example of an ideal IR subject at just the right time of year in May. As summer progresses, leaves become much darker in IR shots.

Is your camera OK for Infrared?

MANY modern autofocus, motordrive SLRs are not suitably for infrared because they use an infrared light sensor to control the film advance. If your Dynax SLR has this type of frame counting system, Kodak High Speed Infrared (HIE) black and white may not be usable (it also can not be used with camera where the pressure plate has dimples or dots on it). This is because the Kodak HIE film has no anti halation dye in the backing, which is clear Estar and transmits light. The light from the frame counter in the Dynax 4, 5 and 7 can fog Kodak's film enough to affect the image. However, Konica IR 750 and similar '750' film has a highly effective anti-halo layer, an opaque base until processed, and the frame counter will just fog parts of the sprocketed area. So, it will be safe to use in almost all cameras even with IR film control sensors. The same quality of this film makes it suitable for use with dimpled pressure plates. Minolta used to offer a replacement plain smooth pressure plate for the 7000AF camera, to overcome the tiny reflections of the dimples which happen when Kodak HIE film is used. This effect is not seen with Konica IR 750 film and a standard pressure plate is OK. The same goes for infrared colour slide film.

The Konica Minolta 8X Red (25A) filter obtainable from *The Photostore* (see page 40) is ideal for general purpose IR photography.

but don't try the same for other films.

I printed onto Ilford Multigrade IV FB and RC with standard MG developer diluted 1+9 using a Grade 2/3 filter and burning/dodging as necessary. The result is a

beautiful mix of highlight detail and shadow definition. If you need to send away for processing, check with your local pro-lab to see if they handle this emulsion first. Most will have no problem.

Conclusion

I had great fun experimenting with this film and I wish I'd tried the 120 format too. As someone who shoots digitally these days IR is the only effect that digital can't really reproduce identically, though both the Minolta Dimage 7 (original) and the Konica Minolta Dynax 7 Digital are capable of seeing near infra-red and users have developed methods for filtering and converting the files to give a convincing image. It's almost worth getting a film camera again just for using the IR emulsion if you can obtain any. *(Editor's Note – we have included articles on digital IR in this issue).*

If you decide to have a go at IR photography now the better weather is nearing then follow the tips here and if you have access to the Internet you'll find a lot of IR sites with good advice and alternative materials too. But however much you read, bracket and experiment like crazy. Shooting Konica 750 IR was a challenge but very rewarding. Remember, you are shooting and metering something that's invisible. I liken it to shooting ghosts. Who knows what you may find when you see the negatives emerge from the rinse!



John Boyes is a Fuji Distinctions award-winning photographer and the owner of In Camera Photography. Based in the North of England, John is a member of the Association of Photographers and works for large corporates, government, designers, ad agencies, PR companies, charities and small businesses across the UK. Website: <http://www.incam-eraphotography.com>

Digital infrared: the Dimage 7's secret

About four years have passed since I bought my original Dimage 7 and up until mid 2003 it was used heavily. For the last two years or so the camera has been left on the shelf in favour of more recent Dimage cameras..

The Dimage 7 was known for having some trouble handling highlights, which had a tendency to 'blow out' white white objects appeared in contrasty sunlit scenes. One of the causes of this was due to the camera's sensitivity to **near infrared** light. Although this was not a benefit for standard metering and exposures, it meant the camera could be used to capture infrared images with the aid of a suitable filter.

All CCDs are infrared sensitive, but most cameras – like the later Dimage 7i, 7Hi, A1, A2 and A200 – have an infrared cutoff filter installed because IR content of light is unpredictable, and accurate colour rendering harder to achieve.

However, those early digital cameras which combined top level performance with IR sensitivity are now in high demand just for this one application.

During a recent photo shoot at Kew Gardens I attached a **Hoya R72 Infrared** filter to the camera, which resulted in a significant drop in the metered light levels. With a normal film camera, you can't even see through this filter to compose. The Dimage 7 has an auto gain for its electronic viewfinder and can shoot in near total darkness, so it is able to amplify the residual image and provide a view good enough for focusing as well.

The reduced light levels meant I had to increase the camera's ISO setting, which on average was ISO 400 to obtain decent hand holdable shutter speeds. Using either program or aperture priority mode I was on average achieving shutter speeds of about 1/20 second (ISO 400) in decent sunlit scenes. The aperture was basically left wide open to ensure the fastest

The original Minolta Dimage 7, alone in its series, has the ability to shoot genuine infrared. Emmanuel Agbaraojo tells how.



Three of Emmanuel Agbaraojo's infrared Dimage 7 shots of Kew Gardens show much the same qualities as Konica Minolta Infrared 750 film. See overleaf for the next chapter... IR and the Dynax 7 Digital. Can it shoot infrared? We asked Emmanuel to try to out.

shutter speed possible. The relatively slow shutter speeds meant limiting myself to taking most of the photos during the shoot with the lenses set to wide-angle. All the photos I took were captured in the RAW format to ensure maximum image quality and added versatility during post processing.

The image displayed in the camera's EVF or the LCD monitor looks rather strange initially as everything is in a rather bright orange colour. Objects that readily reflect IR light are represented in lighter shades such as grass and trees (though this is not always the case). Interestingly, a black T-shirt can be displayed as white! A clear blue sky tends to come out quite dark when displayed.

Because the Dimage 7 with the IR filter attached is only looking at a fairly narrow bandwidth of light, I found instances where it appeared the camera was seeing through some opaque material. The photo of the conservatory is a good example of this where the plants inside can be clearly seen. A normal colour photo would show more glare from the glass structure making it more difficult to see the interior.

I find one of the great advantages of digital IR photography was that scenes or objects that under the wrong lighting I consider to be dull or uninteresting come alive when viewed through the IR filter.

With digital IR photography, taking the photos is only half of the story. Careful post processing is essential to achieve a decent viewable image. As I shot all my photos in .MRW format I used a RAW converter (in this case *RAWShooter*) to process the images. The first order of day was to remove the colour content and I did that by setting the saturation control to its minimum (you can do this in Adobe *Photoshop* using the command **Desaturate**).

The resulting monochrome image looked rather flat and lifeless. I adjusted the exposure compensation to ensure the highlights were kept under control, then I tweaked the contrast to give the image more impact. I've found that applying **duotone** processing in *Photoshop* can add a bit of arty colour to the finished image

The ability of the Dimage 7 to capture infrared light has added another dimension to this first-generation 5 megapixel camera and because of this it has received an extended lease of life.





Infrared with the Dynax 7 Digital

Like the majority of modern digital SLRs, the KM Dynax 7D was not designed as a digital camera for infrared photography. In fact, because of potential metering, colour and exposure problems, it has been designed to *block* infrared light. Having said that, not *all* infrared light is blocked which makes digital infrared photography with this camera possible to some degree.

For the infrared digital photos made use of my old style Minolta 50mm f1.4 and a Hoya R72 infrared filter. With the filter attached to the camera it was difficult to see clearly out of the viewfinder even in well-lit or sunny conditions despite the very fast lens. Some quick test photos made it obvious that I required the aid of a tripod as the shutter speeds necessary for correct exposure were rather slow (too slow even for the Anti-Shake feature to be of help). To optimise image quality I preferred to keep the ISO as low as possible.

Unlike the Dimage 7 where the effect of exposure settings can immediately be seen in the EVF or LCD monitor, it was necessary to take test shots with the Dynax 7D to determine the correct exposure for

Too early in the year for ideal conditions, Emmanuel Agbaraojo explored the residual infrared sensitivity of the new DSLR



each change of scene or subject being photographed (the pink example above shows what you should expect). I made use of the histogram to determine correct exposure – fairly central or with a slight bias to the right. What was very apparent was that the contrast level of the infrared images was limited compared to a non-infrared version of the same scene.

I found it was best to use manual exposure as the other exposure modes resulted in underexposed images even when exposure compensation was applied. A typical exposure



setting was about f4 at 4 seconds at ISO 400. A cable release was used for all photos. I experimented with various shutter speeds from 1 second to 30 seconds. All captured images had a reddish/pink look to them. I preferred to capture all images in RAW with the RAW+JPEG mode used to allow me to verify correct focus.

Although the camera's autofocus seemed to work and lock on to the subjects with the filter in place, because of the dark viewfinder I could never be sure what was in focus. I decided it was best that I

initially remove the infrared filter and set up the focus manually each time I prepared to shoot a new scene and then carefully replace the filter.

Post processing was carried out with a RAW converter and *Photoshop*. All the images to some degree suffered from what looked like internal reflections inside the camera which resulted in uneven images (rather like shooting through glass and getting reflections). The longer the shutter speed or the brighter the ambient lighting the more uneven the images became. The reddish/pink colour was easily removed by de-saturating the images. The contrast was adjusted to give more life to the images.

The finished images looked better than I thought they would. Taking infrared photos with the Dynax 7D was rather a different experience than I had previously encountered with the Dimage 7.

The Dimage 7 was more straightforward and the Dynax 7D's lower infrared sensitivity made the overall process much slower and more complicated. However, the experience was still enjoyable and overall the results were well worth the effort.





Above: early in Spring evergreen foliage does not reflect infrared but new grass – like fresh leaves on trees – works well. Conventional and IR shots.



Above: the low contrast and odd tones of DSLR infrared might have a use for portraits as well as landscapes. Again, conventional and IR versions.



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Inside the spectrum

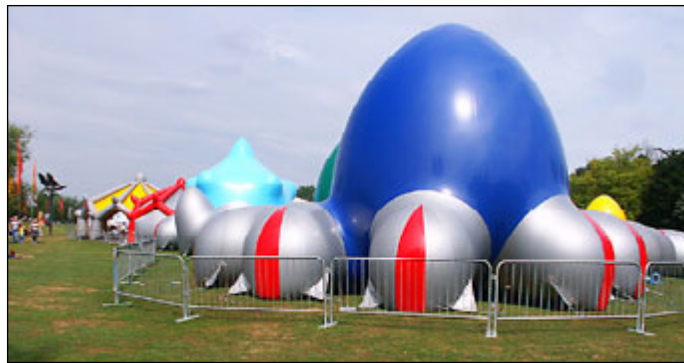
Last summer on the banks of the River wye below the beautiful market town of Ross-on-Wye, the Summer Festival was a two-week extravaganza of music and comedy from around the world. As part of this celebration Architects of Air erected a Luminarium.

From the outside, the structure is impressive, but inside you will be completely amazed – I saw people go in a bit nervous but come out very happy and impressed.

Upon entering you instantly notice vaulted ceilings that arch towards heaven creating a sense of grandeur and space. The air is washed in colour – reds, blues, greens and yellow deepening from soft tints to lustrous tones. As you walk through the tunnels you enter coloured rooms whilst listening to gentle music, a womb-like experience. It is pure delight for children, who liken it to walking inside a huge bouncy castle.

It is a photographer's delight and with time and experience some wonderful images can be captured. I used a Dimage 7i set on automatic, and positioned myself where I knew I could capture silhouettes of people as they wandered from room to room. I think the pictures

The Luminarium by Architects of Air is a remarkable experience – as Barbara Nash discovered



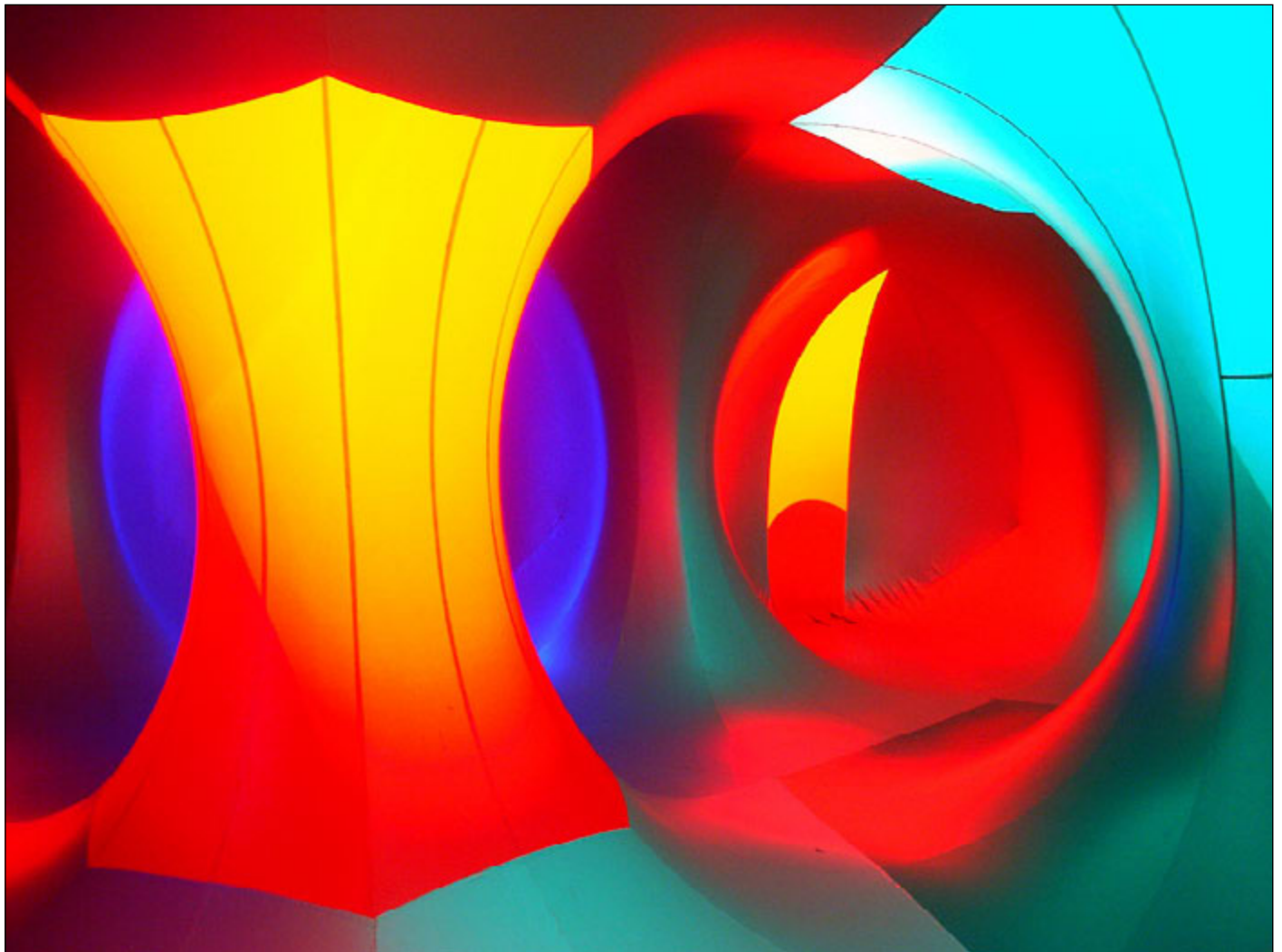
of children were most rewarding, as you could see the wonderment in their poses and their faces.

Technical notes

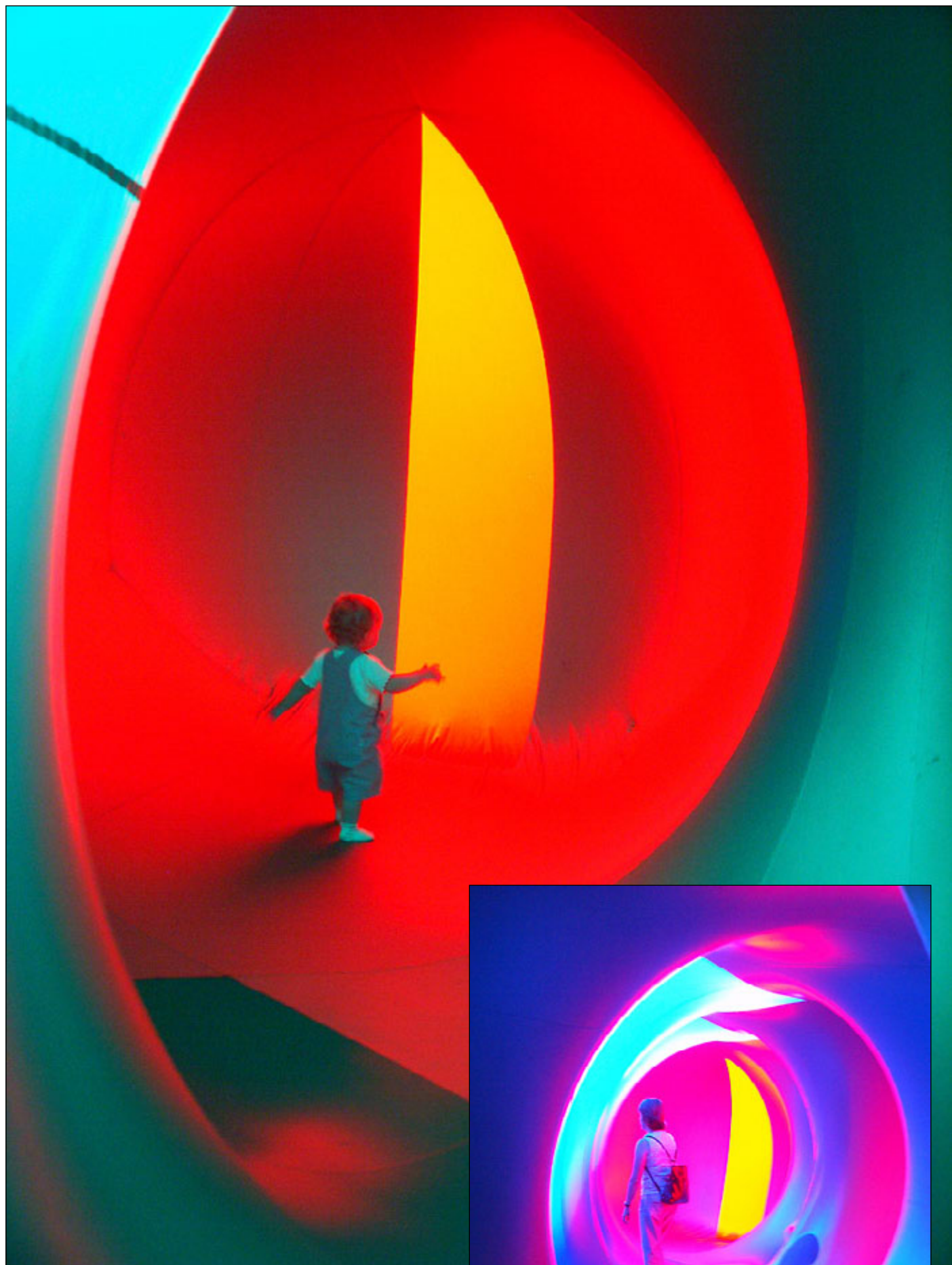
The exposures, with the camera setting ISO 200 automatically for all the shots inside the Luminarium, ranged from 1/15th at f2.8 to 1/45th at f3.5 and all were hand-held. No flash was used, and the files were saved as High quality sRGB JPEGs. The camera's Auto White Balance has not been fooled by mixtures of colours, but both exposure and AWB make the tones in some shots (like the example on the facing page) very unusual.

"This effect will not be obtained using film", said Club director David Kilpatrick. "We have received similar shots in the Luminarium on film in the past, and while very striking, they are more literal than the digital images. The digital camera seems to react more like the human eye, trying to adjust the colour but ending up overwhelmed by it.

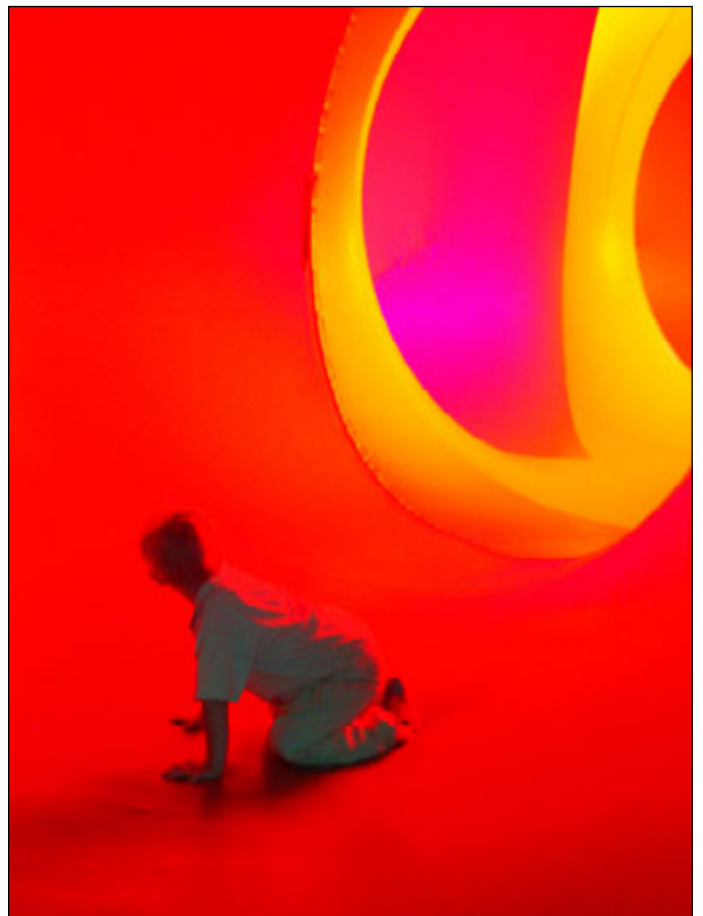
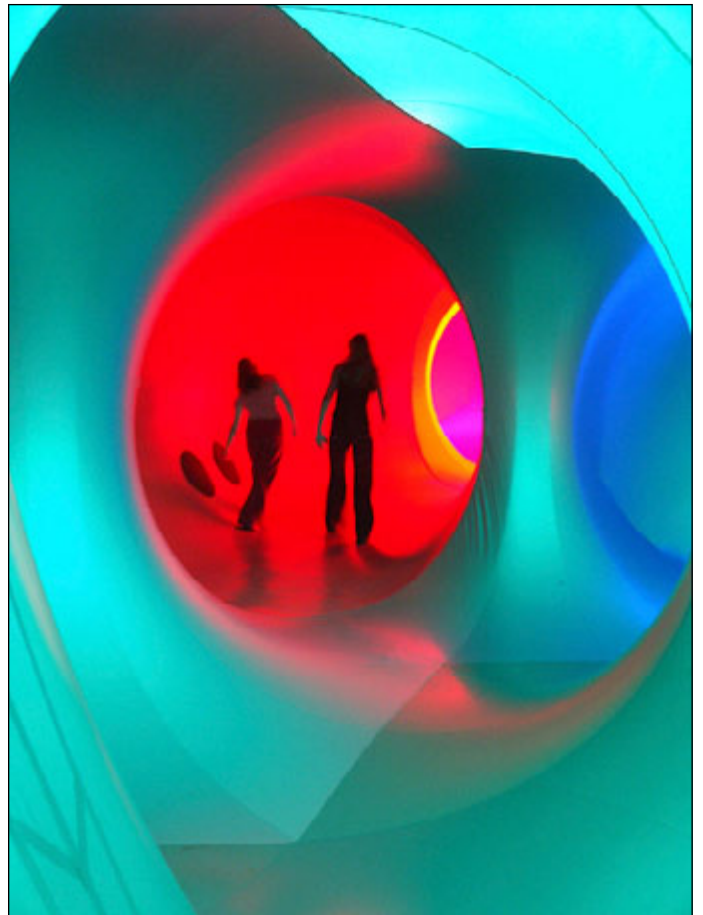
"Remember, once we have used a feature like this, we will not be likely to use similar images in the near future".







All Luminarium pictures by Barbara Nash of Ross-on-Wye, taken using a Konica Minolta Dimage 7i 5 megapixel digital camera on Program setting with Auto ISO and White Balance. No adjustments have been made to the original camera JPEGs for reproduction other than cropping if beneficial, resizing and unsharp masking.



Inside the spectrum

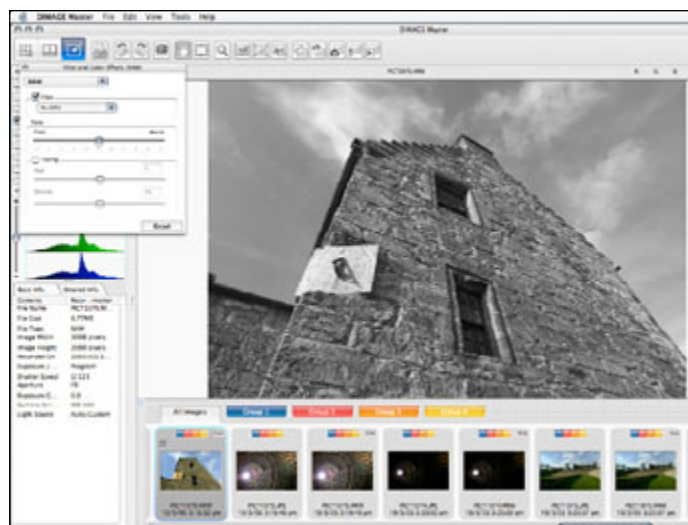
From colour to mono

Using Dimage Master or Photoshop Channel Mixer, 'filtered' black and white images can be made from colour originals

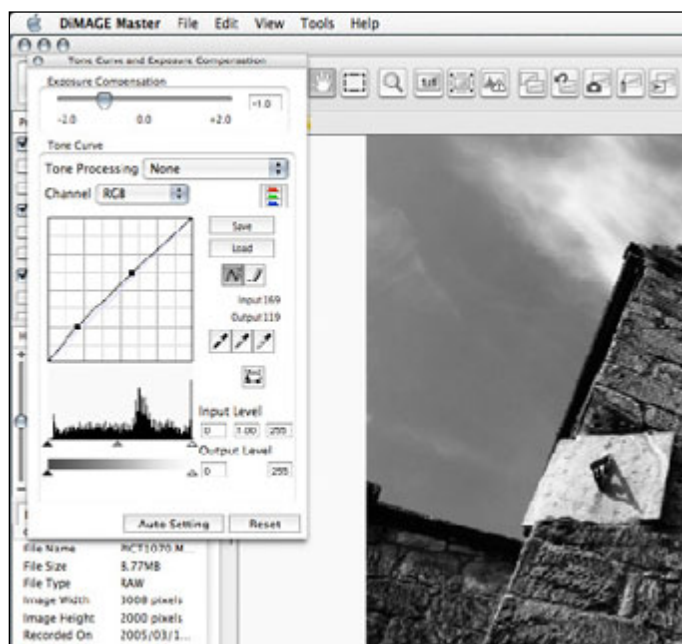
The infrared articles in this issue touch on conversions from colour to black and white, working from scans or digital camera images. By changing a colour original to monochrome using *Dimage Master*, Adobe *Photoshop* or a similar application, impact can be given to pictures which would have been better taken using black and white film.

The use yellow, orange and red filters on panchromatic (fully colour sensitive) black and white film does not alter the actual colour of the picture; this can be done by toning prints, for example sepia, or when making prints from black and white negatives on colour papers.

Instead, the filters cut parts of spectrum which normally record as even shades of grey, making some colours darker (normally those at the blue end of the spectrum) and others lighter (at the red end). This



Top: the original colour shot. Above and right: the two main steps needed in *Dimage Master* to make the black and white version, top of facing page. A contrast boost was also added. Bottom strip of pictures: the process for *Photoshop* – Channel Mixer, select B/W, and manually set channels to imitate a red filter.

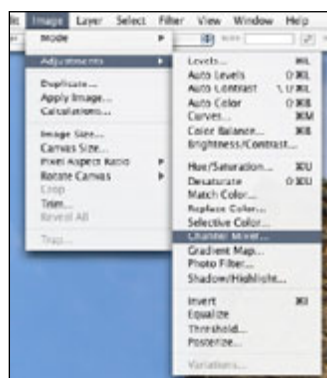


can look almost like infrared black and white when taken to an extreme.

Dimage Master comes with a built-in set of filters and conversion to monochrome from RAW. To create a dramatic effect, it is also necessary to use the exposure, contrast and tone curve controls. In *Photoshop*, assuming you start with a regular colour scan, the **Channel Mixer** is very much harder to master but offers a wider range. It is easy to go too far and lose detail but the

overall effect created can be stronger – similar to a deep red tricolour filter rather than the standard 8X Red.

If the original is fairly flat in contrast, like this example, it will be necessary to adjust exposure and contrast in either program. When contrast is increased, there is a tendency for light tones to burn out, so exposure may have to be reduced. In this example, the sundial on the corner of Aberdour Castle (a Historic Scotland property) is





The *Dimage Master* software conversion, above, uses the Red filter plus changes to exposure, contrast and the tone curve. Exposure was set to -0.9, and Contrast to +100 (maximum) while a very slight lift was given to the shadows as the tone curve reproduced on the facing page shows. Master has retained very good detail in the highlights with a good tone quality to the sky and clouds. Below are two of Photoshop's 'instant' methods for black and white conversion: on the left, the original image after changing the mode from 8-bit Colour to Greyscale; on the right, the image after applying Desaturate. Both these conversions are rather flat compared to *Dimage Master*'s method for changing from Colour to B/W, which is found in the Filter and Colour Effects menu. It also includes toning or tinting the output file if required.



the critical feature. It is the one element in the picture which will be lightened most by a red filter effect. *Dimage Master* has retained a good realistic level of detail.

Our Photoshop conversion is more extreme than this, and you can see from final image in the sequence on the left that the sundial is showing signs of bleached highlights while the clouds are not as light as would be desirable.

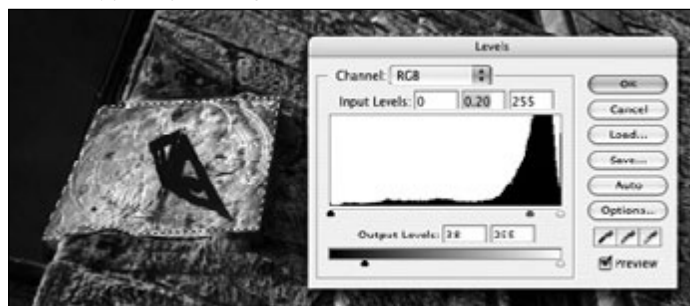
In the photographic darkroom,

it would be easy to 'burn in' the sundial and 'dodge' the clouds – or even to apply a bleach solution locally to the print to clean up the clouds. The *Dimage Master* conversion does not really need any afterwork but the *Photoshop* treatment – more extreme – suffered from rather heavy clouds and a bald sundial.

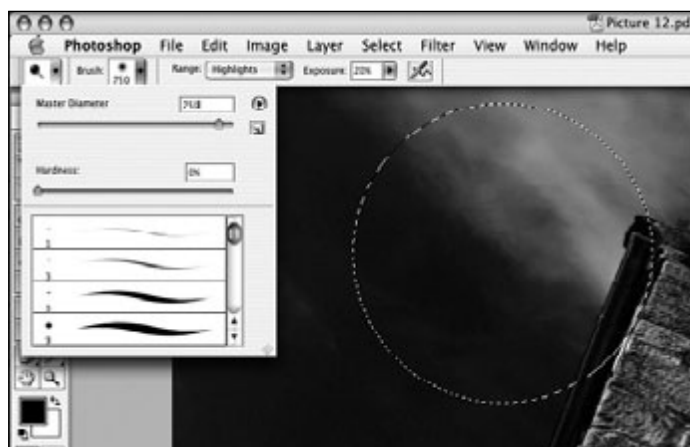
To correct the sundial and also give a great tonal impact, the outline was selected using the Lasso tool in its polygon mode. This is easier



The Photoshop 'ultra deep red' filter conversion left the sundial very light compared to the rest of the shot and the clouds fairly grey. Both these have been adjusted individually for the final image above.



Selecting the sundial using the Polygonal Lasso, Levels are applied locally to just this patch. The adjustment is very strong – the mid tone moved to 0.2, and the black point reduced to 38 to avoid excessive contrast in this area.



A very large 'brush' has been created for the Dodge tool – very soft edged, at 0% hardness, and 750 pixels in diameter. It has been set to lighten the highlights only, by 25 per cent with each pass. A pass is a swipe of the tool over the image area while pressing the (left) mouse button to activate the dodging.

than drawing with a mouse, as you click from point to point to make up the shape. There is little risk of ending up with a jagged outline, as the next step after making the selection is to **Feather** it – in this case, by 5 pixels. This softens the edge of the selected patch (including any jagged steps produced by using the polygonal lasso method).

The **Levels** control is then opened, and because a small part of the picture is selected, it will only affect this patch. A big adjustment in levels pulls a much more detailed, contrasty rendering of the sundial's features into view.

To clean up the clouds, the **Dodge** tool (small black paddle) is selected, and a suitable soft edged Radius is

adjusted using the slider control (see screen shot). I selected 750 pixels radius, Highlights to be lightened only, and a 25 per cent effect. By dragging the circular dodge tool area over the clouds and pressing the mouse button (this activates the tool) a few swipes across the parts of the image involved make the clouds really stand out without affecting the darker midtone sky around them.

The end result of the *Photoshop* variation is more dramatic, and resembles a high contrast hand print from a negative. In contrast, the final image below is a straight **Yellow** filter conversion by *Dimage Master* – no other adjustment.

– David Kilpatrick



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In 2004, we realised that digital and conventional photography had merged entirely in the world of the freelance, fine art photographer, solo professional, stock shooter, exhibition and competition entrant. Freelance was expanded to become **f2 – Freelance+Digital**. We will continue to cover all types of photographic process as long as you continue to use them!

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December/January 2004/5



FREELANCE+DIGITAL



Colin Prior interview
and panoramic winter
portfolio

Konica Minolta
Dynax 7 Digital test

Studies in sharpness:
AF accuracy and
Image Stabilisation
effectiveness

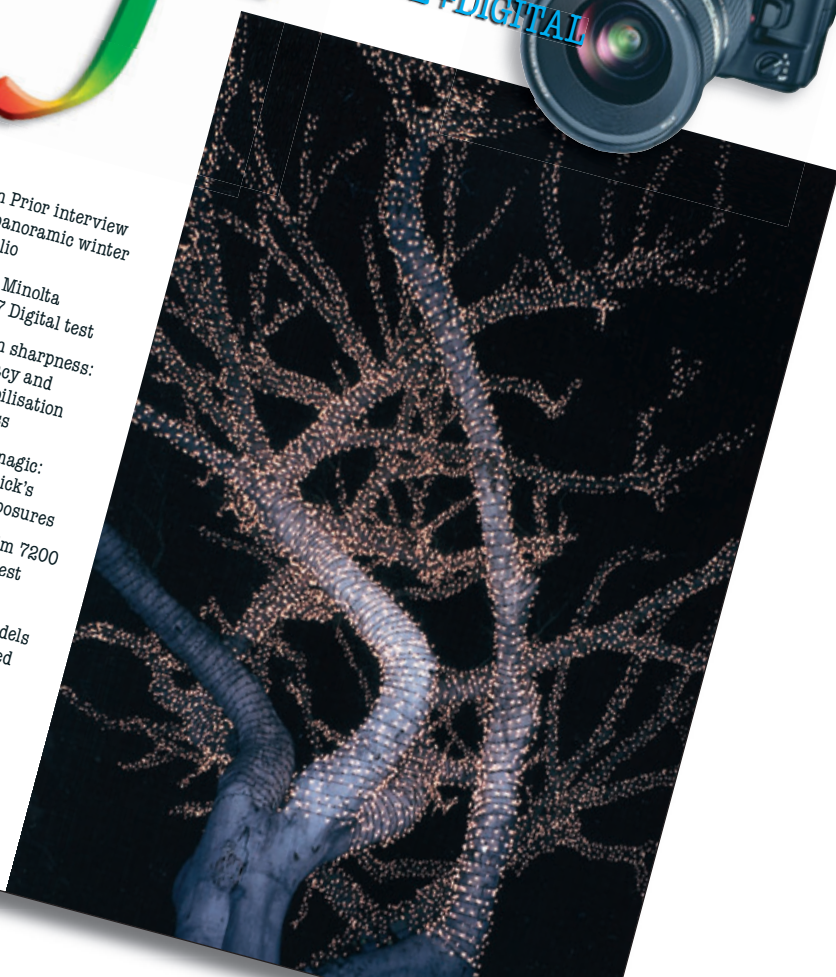
Flash black magic:
Sean McCormick's
eerie night exposures

Plustek OpticFilm 7200
35mm scanner test

DSLR Guide:
update with 24 models
shown and compared

David Bigwood
Jonathan Eastland
John Hannavy
Bob Smithies

Cover photograph by Pyllis Eber.
Christmas lights on tree, inkjet print



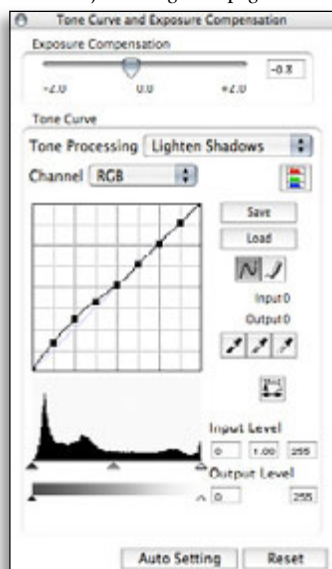
Mastering RAW file conversion: Dimage Master software

When Konica and Minolta combined forces over a year ago to create the new company, one thing we were promised was a blend of skills in colour management. Minolta had, for many years, been the leading manufacturer of colour measurement equipment and had the science of accurate colorimetry; Konica, as a film manufacture constantly monitoring the tastes of consumers, had the know-how to turn the number-crunching into a more photographically familiar rendering.

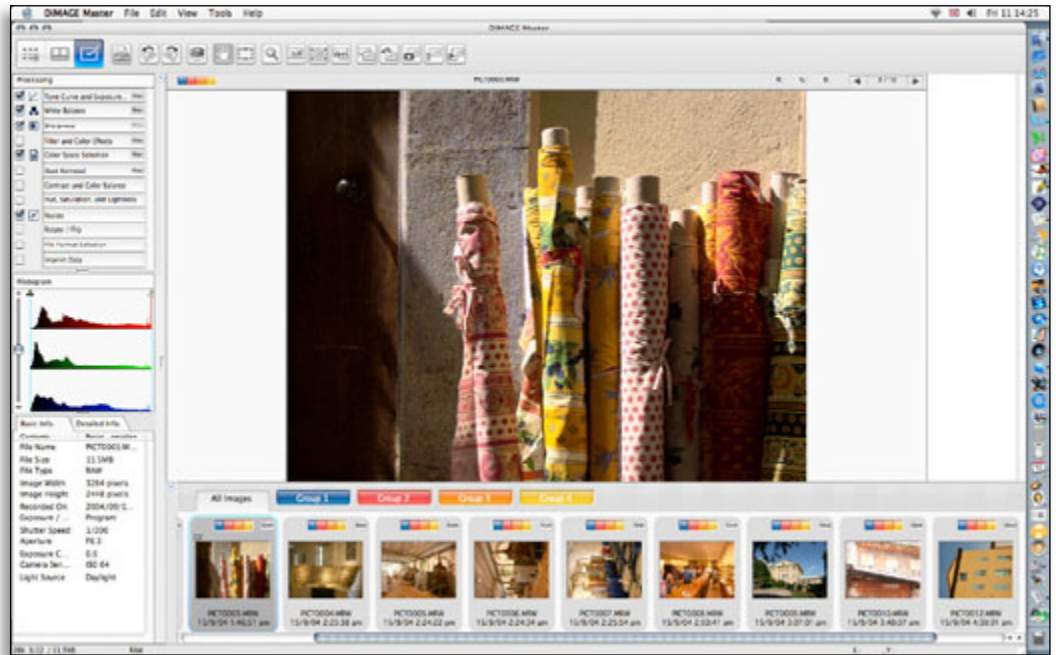
When Konica Minolta digital camera products are tested, they are found to be amongst the most accurate for mapping colours within their colour space. The A2, A200 and Dynax 7 Digital have all been praised for the natural colour they yield and the lack of a digital 'look' to their results.

Dimage Master software is a powerful (and paid-for) alternative to the *Dimage Viewer* program supplied free with the cameras. It is also a viable alternative to using *Photoshop* Camera Raw or other third-party utilities.

After testing *Master*, my own view is that it focuses on maximum colour quality above everything else. This means the emphasis is not on ultimate extraction of fine detail sharpness, and that noise suppression becomes important. Both give the final *Master* image when viewed at 100 per cent pixel scale on screen a slightly mushy and ragged look. However, the final print (made at roughly 30 per cent magnification) on an inkjet or magazine page



With the emphasis on colour quality and batch processing, *Dimage Master* is a powerful utility for converting .MRW files. David Kilpatrick assesses it.



Dimage Master's workspace on a 20 inch Apple Cinema Display. The controls, histogram and EXIF data (left hand column) are comprehensive and the Group function (above the thumbnails) allows selective batch processing.

does not reveal this structure, and may look considerably better than a conversion from raw which has 'cleaner' detail sharpness.

The sensor in your digital camera or SLR has a pattern of red, green and blue elements in a grid. If you are willing to put up with a monochrome picture and discard all the colour values, then each of these coloured cells can be used to show a single corresponding point on the image. This gives you the maximum possible detail sharpness from your camera – but no colour.

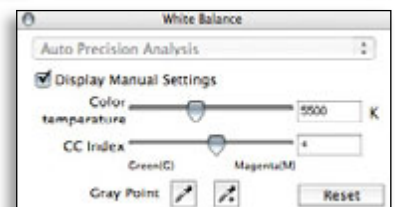
To produce a colour image, the data from a group of at least nine RAW pixels (a 3 X 3 square centred on the final pixel position) is used to calculate the colour and brightness value of each final RGB image pixel.

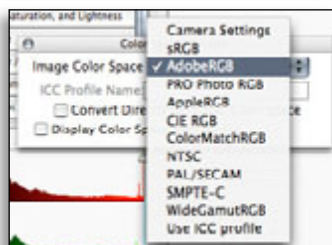
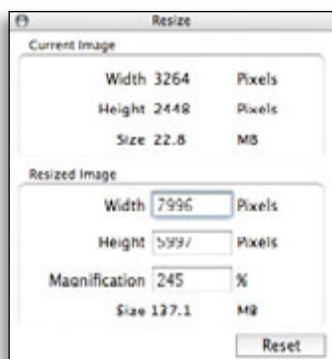
In fact digital cameras also use Anti-Aliasing filters which diffuse the sharp lens image over a wider group of sensor pixels, and raw conversion utilities can take some extra values from further out, and not necessarily a square area, since the filter spreads light in a circular patch. It is not unusual for over 20 raw sensor pixels to make contribution to each final RGB pixel.

The job of the software writer



Above: the two sharpening functions of Master, detail emphasis (Spatial Filtering) and Unsharp Mask which can improve printed results. Right: Auto Precision Analysis is an advanced auto white balance option.





For final output Master offers freely variable interpolation (top) and a wide range of colour profile conversions (above).

is to balance between accurate and full extraction of colour, good sharpness and lack of image artefacts such as moiré patterns and aliased (jagged) diagonal edges.

Photoshop CS or Elements 3.0 Camera Raw is biased towards detail with relatively low contrast and colour values. It is very forgiving with Konica Minolta .MRW files, and useful to have. But when you run a raw conversion side by side using *Dimage Master*, the far wider gamut of colours produced by the Konica Minolta program is easily seen. Yellows, in particular, are rendered in a way which creates far superior inkjet prints – and skin tones are far healthier looking.

Master also allows very detailed control of tone and exposure and two different types of fully controllable sharpening. Once you have set up the different parameters, you can save them and apply them to a whole batch of files. You can even make four 'groups' of raw files and use a different batch process on each group.

One of the best features of *Master*, missing from both the *Photoshop* raw converter and from *Viewer*, is freely and continuously variable resizing up to 245 per cent size from 8 megapixel camera files. Combined with 16-bit TIFF output and a wide choice of final colour profiles, *Master* can process files ready for wide format inkjet output – well beyond the familiar A3 size maximum of home printers.

Whether you need the program or not will depend on your ambitions. If you want the best possible colour prints the answer is probably 'yes'.



Dimage Master conversion



Photoshop Camera Raw conversion



Dimage Master handles colour and density by default in a different way to *Photoshop*'s raw conversion. Top, an A2 image processed using *Master* (note the higher contrast but vibrant yellows and greater colour discrimination), with a *Photoshop* version below – both given -0.3 exposure correction. Far left, a default *Photoshop* conversion of a *Dynax 7* Digital shot, with the *Dimage Master* default conversion, near left. While both images could be adjusted, the colour response and flesh tones make *Master* a very attractive program for portrait photographers.

All the fun of the fête

Obtaining commissions from local papers can be very difficult, especially when they seem to have an abundance of staff photographers. However, I have found that the summer months offer the best chance, as staffers, like the rest of us, do take holidays, and the work still has to be done.

I was commissioned to cover a Fun Day for this very reason. Well, "Fun Day" was to some extent an unfortunate term, as it was organised to raise funds for a memorial garden for a five year-old boy who had been knocked down and killed while crossing a road near his home. The local paper was very keen to give the event a good spread, but none of its staffers was available.

You may wonder why they choose me, as they wouldn't just go to the *Yellow Pages* for a photographer. Well, I have been doing their sports photography for over ten years, so they knew the standard of my work, but how was it that I was their sports photographer? Again, they wouldn't have picked me at random, and this is the crucial point. If they do not know of you, you will never hear from them. That is obvious, so you have to make yourself known.

All those years ago, when I had been developing my interest and skill in sports photography, I noticed that the local paper did not use action pictures. I took some in; they liked them; and the rest, as they say, is history.

Local newspapers can't always find a photographer to cover every event when the outdoor season gets under way – it's the one time they may use outsiders, says John Fryer LBIPP.



Well, what about the "Fun Day"? The paper wanted a photo of the boy's mother and sister in addition to half-a-dozen of children enjoying themselves.

In an earlier *Minolta Image* (Summer 2002) I wrote about the possible problems faced when photographing children. On this occasion I appreciated that some parents may not want their children in the local press, so I introduced myself and asked if they minded. They all knew the local paper and were very pleased to cooperate. In fact, the only refusal I received was from a very shy child! The only time I did not ask individual parents was at the bouncy castle, and in this case I told the organisers of that activity who I was.

I was well aware that the paper likes close-ups of cute and happy faces, and this is what I concentrated on. I was also aware that any used were likely to result in requests for additional prints. I included a couple of pensioners to show that the event was of interest to all ages.

All pictures were taken on a Minolta 700si with a 24mm f2.8



John's scans from negatives were the right format and resolution for his local newspaper to use



lens, which allowed me to get in really close and communicate with my subject. Fill-in flash was

with a Minolta 5400HS used on TTL. Film was my usual 400 speed colour negative film.

The pictures supplied with this article were scanned and cropped/adjusted in *Photoshop 6*

on an iMac. Those emailed to the paper were saved at 200dpi compared with 300dpi for this feature, though the cropping is virtually identical.

The paper was true to its word and used seven pictures, including one of the mother and sister of

the little boy. I was surprised that none of the bouncy-castle shots was used, though this may have been because I had not supplied names. All I had to do afterwards was deal with requests for prints!



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Faster better scans with the mark two version of the Elite 5400

A completely new scanning utility for the Mark II version of the Dimage Scan Elite 5400 breaks with Konica Minolta's recent tradition of one program – *Dimage Scan* – operating all Minolta and Konica Minolta scanners.

The user interface is greatly improved. For example, the Preview strip is a separate tear-off window which can be placed anywhere on your screen (or even on a second screen for those with twin monitors). Adjustments and settings no longer crowd a single window, but function more like the palettes and tool windows of Photoshop.

All the familiar preferences and controls remain in place; the colour management, auto exposure and focus functions, Default saved settings, resolution and output file size controls are unchanged and will be instantly recognised by owners of earlier scanners.

A major change is that Pixel Polish, the optimisation control unique to Konica Minolta, is no longer an exclusive choice which locks out other controls. You can select any of the four parts of Digital ICE4 with or without Picture Polish and indeed with either manual or auto exposure. Unlike the same control on the earlier 5400, Pixel Polish did not overdo adjustments and result in burned highlight colours; it simply transformed dull images into very usable, bright, well saturated and adjusted scans.

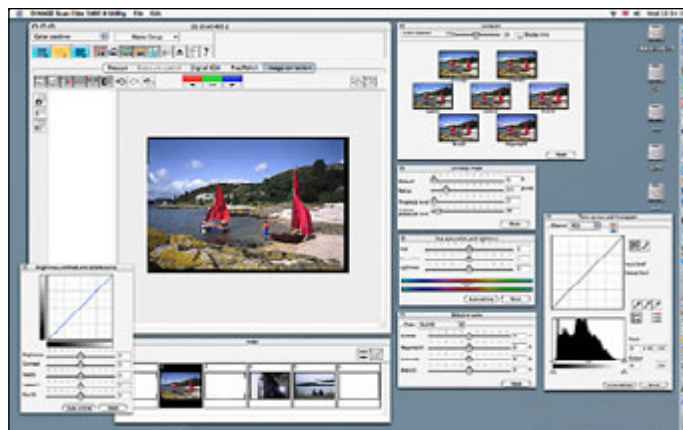
The new 5400II uses a completely different type of light source. Instead of the cold cathode tube of the 5400, it has LED illumination. The cold cathode had a high infrared content, which made Digital ICE dust removal exceptionally efficient – dust which left 'scars' on transparencies scanned with some other makes was healed without any visible trace on the 5400.

The downside of this was long exposure times, and a tendency to emphasise reds and flatten off yellows, making colour adjustments essential for some film types.

The new LED cold light source in the 5400II does not wear out or change with time as much, as the scanner is EnergyStar compliant and shuts down its light when not in use. Calibration takes very little time, and the old message asking you to eject the film holder has



A new light source, Digital ICE4 improved USB 2.0 speed and new software make the revised 5400II highly productive



Top: the Dimage Scan Elite 5400II next to our Western Digital MediaCentre (a card reader and 250gb hard drive combined, ideal for storing large scans). Above: the floating palettes transform the familiar control software.

gone for good – it will calibrate with the film holder in place.

Preview and index scan times are a tiny fraction of the earlier model, with superior colour right from the start. Final scan times at maximum resolution with ICE, GEM, and Pixel Polish plus 2X oversampling are around 7-8 minutes per slide producing 8-bit RGB TIFF files up to 120mb. The actual resolution of the new scanner appears slightly higher as the full available film frame makes a file some 10mb larger.

This compares with scan times around 10-12 minutes with the same parameters on the original 5400. However, the new Mark II autofocuses each slide with absolute accuracy. The holder has three of its cross bars cut away – maybe this helps keep the film strips flatter? Whatever the case, AF did not need manual targeting, and nor was manual focus needed as has been the case much of the time with the original 5400.

Overall productivity for scanning strips of slides is probably doubled, combined with a visible improvement in quality. The ICE removal of dust and scratches is perhaps a touch reduced in effectiveness but still much superior to some implementations; again, no 'scars' were left in place of dust, but a few types of blemish the original 5400 seemed to deal with remained visible.

Digital ICE4™ includes ICE – the infrared dust removal so vital for perfect scans; ROC, which restores faded old originals; GEM, which reduces granularity; and also SHO, which is a shadow and highlight detail enhancer. All but SHO have been available in other Minolta and Konica Minolta scanners, but never all together. This is the first scanner to have all of them plus the Pixel Polish function.

The build of the Mark II is certainly lighter – plastic not metal – and it lacks a FireWire interface, having only USB 2.0/1.1. The price remains unbeaten for the highest true resolution 35mm film scanner made. We shall be looking more at its performance with different films, and negatives in particular, in the next *Photoworld* edition. With some of the functions turned off, scanning can be even faster and we'll test this aspect as well.



All the proof you need: Konica Minolta's budget photo laser printer

Inkjet printers are now so good that you can't tell a home printed 6 x 4 inch glossy from a photo lab product. However, inkjet prints are very expensive. A full set of official inks for our latest Epson R300 printer with special photo gloss paper can mean costs of £1.50 to £2.00 per A4. And the little R300, while a bargain with its built-in card reader and monitor screen at around £130, can take many minutes to produce each print.

The Konica Minolta **Magicolor 2430DL** A4 laser printer is now on sale at under £300 – for the first time a colour laser is a viable alternative to home inkjet. On the MISCO web site we found it at just £211 + VAT and carriage in March.

We need colour page proofs. For the last few years we have used a CLC copier and RIP system which cost over £10,000, weighs 260 kilograms, occupies a quarter of a room, makes a noise like an armed invasion, takes 15 minutes to warm up... and will cost us over £500 to have removed now the lease has ended!

The little Magicolor 2430DL does the same main job (A4 pages), and cost less to buy than six weeks of the copier lease. A toner kit at £250 provides about 4,500 prints in colour (5 per cent coverage) but I reckon it will make around 1,500-2,000 A4 photo prints of normal density going on usage so far. The printer comes with a low-capacity starter kit good for 1,500 office density pages.

While per print costs of around 5-7p might be claimed for office use, it looks as if photographic use would put this up to 20p. Changing the toners and supplies is very straightforward and clear instructions are provided. You need to be able to lift about 20 kilos to unpack and set up the printer, but it only takes up the same desk space as this magazine opened out.

It sits on the desktop next to my Mac screen, and it is totally silent when the EnergyStar power saver system puts it to sleep. Print from the computer via a standard USB 2.0 connection, and it wakes and warms up in seconds. It turns out 20 b/w or 4 colour pages a minute.

Uniquely at this price, the Magicolor 2430DL not only has USB 2.0 for direct connection to the computer, but also Ethernet 10/100 for wiring to a network. It can be

We got ours for under £250 with VAT and carriage. It's fast and each photo print costs under 20p.



Above: the 2430DL is compact but all. Below: sample prints showing its use for page proofs, photo prints, and also the neutral quality of b/w results.



expanded to work as a wireless network device, to take a high capacity paper tray, and do automatic duplex (two sided printing).

Direct printing

But it has something else too – a USB port on the front for connecting **PictBridge** compatible digital cameras. You simply set the camera up for PictBridge use, plug in the cable, switch the camera on and you get a screen to print any JPEGs on your memory card directly through the 2430DL. The printer menu provides choices about output size and arrangement. Colour management is fully automatic using Print Image Management II, and the results are out of the printer in about a tenth of the time any inkjet printer takes to run from a memory card

reader, or PictBridge camera.

This is not inkjet quality, but the 2430DL will take surprisingly heavy weight paper stock including gloss, and the ultra-fine random tone pattern with no lines or dotted rosettes looks at least as good as the best printed magazine page.

PictBridge functions only with sRGB files which have a .JPG extension, not AdobeRGB JPEGs with a .JPE extension. If you set the camera to shoot RAW+JPEG and select sRGB, it is only the JPEG which is in this colour space. You can still export an AdobeRGB image from the raw file.

To be used with the PictBridge printing feature the 2430DL requires a memory upgrade. It comes with 32mb, enough for printing when a host computer does most of the work. A further 128mb DIMM module is needed, and these only cost a few

pounds; we had one spare from a computer of about four years vintage.

With the convenience of quick reference prints from our Dynax 7D and excellent page proofs the Magicolor 2430DL has replaced inkjet printing for 99 per cent of our demand. It is fully Macintosh and Windows (current versions) compatible, the supplied installation CD runs with no need for specialist know-how, and the print quality is as good as you can possibly expect from a toner based machine.

The finished result

Using a gloss paper, full toner density and putting a laminate on the print using one of the new low-cost office laminators you get something which is almost as good as a gloss inkjet with the great advantage of light permanence. The polymer toners used in these printers don't fade.

I tested the printer from *Photoshop* printing a monochrome RGB image and was delighted to get a totally neutral black and white print. There seems to be no colour profile installed on my computer, and no option to use anything except 'Printer Colour Management'. This works. End of story – nothing to set, no adjustments to get wrong.

The maximum paper size of the 2430DL is larger than A4, at 8.5 x 14 inches. It can print attractive panoramic prints on 'Legal' size paper and A4 page proofs which almost show the entire page area. Normal A4 prints have a 5mm white margin, but you can trim a full bleed 10 x 8 from this – or a full bleed 12 x 8 from 'Legal' paper.

It also prints on postcards and adhesive labels, which has allowed us to print packing labels easily. The Royal Mail 'SmartStamp' downloadable postage impression system would be ideal to use with the 2430DL, printing our own customisable full colour postage labels.

Just a year or two ago, a colour laser printer with this specification and camera-friendly PictBridge would have been a dream – let alone one at this price. And it's from Konica Minolta – the business equipment division, not photographic, but still in the family.

– DK

