

In this issue of your Digital Imaging Group magazine:

From the Chairman

D-Day Rugby - 29 October - see insert
for details & application form

Latest Distinctions for DI members

Tributes: Eddy Sethna & Barrie Thomas

RPS members' exhibition notice

John Henshall's Chip Shop

Graham Whistler on portraiture

ILEX image competitions for DIGIT

Photo Harmony with Robert Albright

Digital Infrared from Ken Deitcher

Photo Wordsearch by Carole Hewer

Letter to Editor - Ray Wallace Thompson

Colour management with Phil Binks

Paula Davies joins the A team

CDs and DVDs with Bill Henley

Barrie Thomas Merging tutorial

Ilex Book of Digital Photography

L plates: Paul Carr, Mags Fewkes
and Janet Haines

Snippets from members

Sid Pearce's rapid reviews

Digital Factoids

Good picture 2006 symposium

Harris Shutter -

Steve Ridgway & Tony Healy

Key Contacts for DIGIT and DIGROs

and ... Members' Exhibition showing at:

*The Podium Gallery, Northgate Street, Bath:
2 - 8 October*

*Library Hall, Weybridge, Surrey:
7 November - 2 December*



From the successful Licentiate panel of Janet Haines LRPS

From the Chairman Clive Haynes FRPS

As the new chairman of DIG I come to the post at a time of both change and acceleration in digital imaging.

Change is of course inevitable and some changes, although not altogether unexpected, arrive as a shock. I refer to the recent double loss to the group with the passing of both Barrie Thomas and Eddy Sethna. Many tributes have been paid to these two outstanding and seminal figures in digital imaging and we carry some from close friends here.

Any structure requires a firm foundation if it's to be self-supporting. The two different yet highly compatible inputs given to the world of DI by Barrie and Eddy over many years provided this essential firm base. Both have been described as true gentlemen - as indeed they were. Both had a passion to communicate, achieving this with eloquence, clarity and patience. Each had specific skill areas. Barrie was superb at giving complex tutorial sessions to large audiences, where each individual felt he was addressing their specific needs. Eddy was a master of the fine art digital print with a deep understanding about how images communicate and the response they generate.

Both Barrie and Eddy provided a sort of Digital DNA: everything they contributed, whether by personal contact or through tutorials, has been and will continue to be absorbed and used and expanded by the DI community. They will continue to be part of the very fabric of DI and photography in a wider context. Barrie and Eddy will therefore always be with us, inseparable from our art and technique. I'm proud to have known them both as colleagues and to have counted them as friends.

'*Secundum lemma, proinde, propter lemma*' - After them, therefore, because of them - is how I would encapsulate their contribution and continuing influence.

Continuing the theme of change, our autumn event will be significantly different this year. It is called *The Digital Decade* or *D-Day Rugby*. I encourage everyone to be at this major occasion when John Henshall, FRPS FBIPP will lead a day that will illustrate the accelerating pace of progress. He'll be hot foot from Photokina with a bevy of new products - some so top secret he can't discuss them until then! And he'll be accompanied by leading manufacturers. It promises to be a really memorable day, to which are added some extra features - a Photoshop techniques session, ways of earning money from your images, members' print exhibition and the prize raffle. See the insert for details.

I look forward to greeting many of you at this major event which will be something of a coup not only for DIG but for the RPS in a wider context.

Clive R Haynes FRPS

Latest Distinctions for DI Group members

We are delighted to congratulate the following DI Group members who have recently gained distinction. If we have missed your name from the RPS records do please let us know of your success.

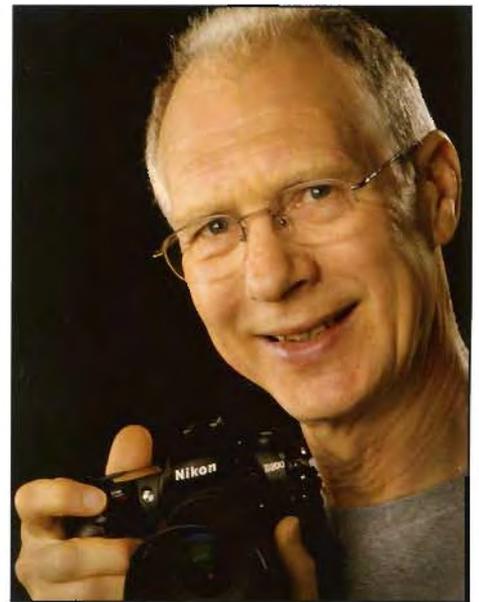
Associate: Paula Davies; John Dean; Leonie Selwyn.

Licentiate: John Coates; Professor Brian Cooke; Alan Dedman; Marguerite Fewkes; Christopher Gill; Ray Hems; Frank Reeder; Douglas Thompson.

Winter 2006 DIGIT

The volume of material this quarter means I'm holding over a couple of articles until December, including Clive Haynes' follow up to **Buzz**, published in the spring issue, which will cover **Art Master** But I still need lots more of your images and articles for the winter edition. What a nice Christmas present to see your photographs in DIGIT!

So here's how to do it. Let me have anything from from 300 to 1200 words and some images. The files should be saved as TIFFs, in CMYK mode (Euroscale coated v2) to suit the printing process, at the size appropriate to your article, and at a resolution of 300 ppi and emailed to me - see back cover. Looking forward to hearing from you. *Editor*



Dr Eddy Sethna FRPS and Barrie Thomas FRPS: TRIBUTES

In the past few months the digital imaging community has been deeply saddened by the loss of two great innovators, creative pioneers and teachers. Both were founder members of the Digital Imaging Group a decade ago and worked tirelessly to establish and promote the art of image manipulation and printing. They mapped out a route in those early days which has led to the acceptance of DI as mainstream photography in a way that many would not have foreseen. Characteristically generous, both encouraged and supported many people in those first steps and both were always eager to contribute to DIGIT. Last year Eddy wrote a major piece on creativity whilst Barrie contributed a special foreword to this summer's exhibition issue and offered a tutorial from a planned book which starts on page 20 of this issue.

Here Peter Clark who worked closely with Eddy recalls his life; Sid Pearce remembers their collaboration; and on page 5 Hilary Roberts a pioneer with Barrie shares with us some of those first, frustrating memories of grappling with the new photography in a reprint of an article from DIGIT of ten years ago.



Peter Clark FRPS writes of Dr Sethna FRPS:

Dr Edulji Sethna - known universally as Eddy - passed away peacefully in June, aged 80 after a long and courageous fight against cancer. He was married to Beryl for over 50 years and had a son Graham and two daughters Beverly and Julie.

He took up photography seriously over 20 years ago as a form of therapy for the stresses of his occupation as a consultant psychiatrist and over the years was a member of Sutton Coldfield, Solihull and Smethwick Photographic Societies. Always the perfectionist he rapidly mastered the art of Cibachrome printing and became an Ilford sponsored lecturer visiting photographic clubs and societies all over the country. He and Beryl always worked as a team and anyone who attended one of Eddy's lectures will no doubt remember the 'magic hands' which changed the prints on the print easel!

The subject of judging fascinated Eddy as it bore a great resemblance to some aspects of his professional work as a psychiatrist, in which he dealt with abstract subjects which were difficult to measure or quantify. He studied the subject in great depth and produced an article *An Analysis of Judging* which is still in demand for reproduction today all over the world.

He and Beryl travelled widely with one main aim in mind - to photograph the landscapes and particularly the people of the countries they visited, preferring to avoid most of the usual tourist destinations and to see the real country and the real people. Eddy had an incredibly creative mind and as the era of digital imaging dawned he immediately recognised the enormous creative potential that the new technology offered. His photography took on a different perspective in that he concentrated more on photographing backgrounds, people and artefacts which might one day be incorporated in a composite image rather than straight images.

Knowing nothing about computers he acquired one and embarked on the steep learning curve of Photoshop 4, which had no Layers, ably instructed by the late Barrie Thomas FRPS. It was not long before Eddy, in his inimitable way had mastered Photoshop and began to produce the creative images for which he is so well known. It was the creative process which interested him most and he often said that he found the actual process of producing

the image rather tedious and while doing that his mind was working on the next image. If there was no obvious method or technique of doing what he wanted in Photoshop he immediately set about working out ways of achieving his goal and in doing so developed many previously unknown and unpublished techniques. There is no doubt that he was one of the pioneers or founding fathers of digital imaging in club photography. He exhibited widely in both national and international exhibitions with great success and was awarded many medals and honours for his work, the last coming just a few months ago in Buenos Aires where he was awarded the PSA Gold Medal for Creativity, a fitting climax to an illustrious photographic career in which creativity was the foundation of his many successes.

Eddy gave great service to the photographic community in lecturing and judging and served for many years on the Council of the Royal Photographic Society and was Vice President for two years. In 2004 he was awarded the Fenton Medal and Honorary membership for his outstanding contribution to the RPS. He was also Vice Chairman of the RPS Digital Imaging Group for a number of years and the first Chairman of the Midlands RPS Digital Imaging Group, a post he relinquished only recently.

Eddy was generous by nature and was determined to share his experiences and techniques with those less able to cope with the intricacies of Photoshop and together with Sid Pearce FRPS wrote a booklet based on Photoshop 5. It was an instant hit as the books published on the subject were aimed at the professionals and not the amateurs or hobbyists.



Cleopatra - With forty layers, the temple is a film studio set in Morocco, the sky from Sutton Coldfield, Antony and Cleopatra taken in the hotel Luxor in Las Vegas and the soldiers are from a re-enactment in the West Midlands.

I first met Eddy and Beryl some 25 years ago at the Cannock Photographic Society. Eddy was specialising in exotic fish photographed through the glass walls of aquaria. Over the years I attended many more lectures by Eddy ably assisted, as always, by the 'magic hands' of Beryl. Ten years ago Eddy recognised the lack of a forum at club level to share creative ideas and techniques and the critical discussion of new work and invited a number of prominent photographers to form the Eyecon Group. I was delighted to be among those invited to form the group and am now the Secretary.

Over the years relationships change: as a young, inexperienced photographer I saw Eddy as an iconic figure on another plane; later we were close friends and colleagues. He was always keen to discuss his images and was kind enough to listen and act on some of my views and opinions. We worked together to produce two further books on Photoshop in electronic format and a number of articles, the one closest to his heart on the subject of *Creativity*. This article (published in the winter 2005 DIGIT) and *An Analysis of Judging*, together with a selection of his work, may be seen on his web site: <http://www.btinternet.com/~eddy.sethna/> which will continue to be maintained and updated.

Despite his illness his mind remained as sharp as ever and his creative instincts undiminished and he continued to produce new images until only a few weeks prior to his death. He told me that the effect of the morphine he was taking, apart from providing relief to the symptoms of his illness, also enhanced his creative thought processes.

A phrase used often in recent tributes to Eddy is that of 'a true gentleman'. He was indeed, and a highly accomplished creative photographer and an icon of his time. His loss has created an enormous vacuum which can never be filled. I am truly grateful that I had the privilege not only of his friendship, but also of the opportunity to work alongside him and to be welcomed into his family.

Sid Pearce FRPS worked closely with Eddy for years before he moved back to Lincolnshire.

Sid remembers:

Eddy was a good friend of mine for many years. We first met in the West Midlands in the 1970s, as members of Sutton Coldfield Photographic Society. Eddy had no edge and would speak and impart his knowledge to anyone who



Bus Station, Bombay - a favourite of Eddy's from about 1943



A Hard Bed and Waiting - one of Eddy Sethna's last images

asked for his help or assistance. His first camera, a Bessa Voigtlander, was purchased for him by his father when he was fourteen years old. In Eddy's words: This was wonderful but getting the money to buy film was very difficult. Eddy's father would happily supply him money for educational textbooks but film for photography was another matter.

Eddy was a great traveller and visited many countries throughout the world. He had literally thousands of slides and images on discs. These were all stored with a view to creating images at a later date.

On his travels abroad with Beryl his wife he would take a full complement of lenses, but no tripod. As he said: I have my own moveable tripod on Beryl's head - she was a little shorter than him! Despite being very ill, he visited Morocco in the early part of this year, and wanted to go away more recently but it was not to be.

Nevertheless, despite being very weak, he still managed, with the help of close friend Peter Clark, to print several images in May of this year.

Despite living a hundred and fifty miles apart we still kept in contact by telephone. Almost to the end he would talk about a new method to do this or that in digital imaging or his latest idea for a new image. There was never a dull moment with Eddy. I will sadly miss a very good friend.



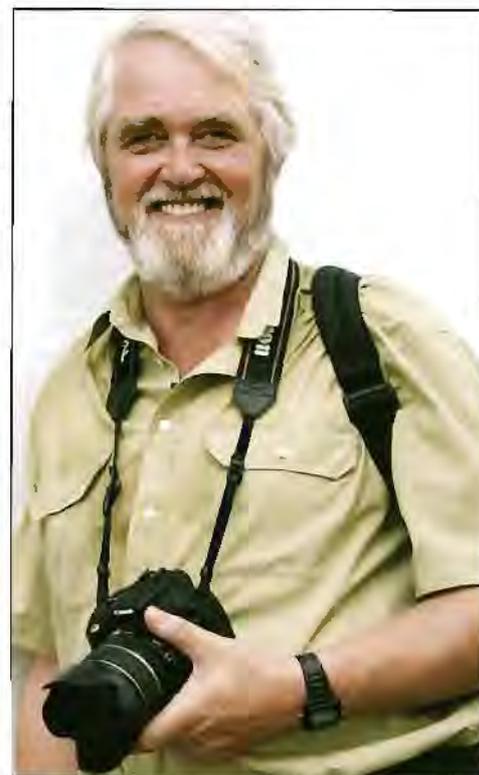
Encounter was awarded two Gold Medals in the Austrian Super Circuit last year.

Barrie Thomas FRPS

It is not surprising to learn that Barrie was originally a teacher since his calm, often humorous, demonstrations were always inspiring and encouraging. Although he had retired from teaching more than ten years ago he was as busy as ever as he developed the new digital techniques to help his hobby of photography. Amazingly, he simply got on with understanding Photoshop for photographers at a time when video tutorials to guide the beginner were not even thought of. Not surprising then that he called his excellent book *The Photographer's Guide to Photoshop*. What a loss for all of us that he was not able to complete the planned follow on volume.

Talking to camera clubs up and down the country he kindled so many people's interest and soon he was converting the key people in the photographic industry. Barrie holds the distinction of being the first photographer to obtain digital fellowships in all three major photographic bodies - the RPS, the BIPP and the MPA. He was one of few in the UK to obtain the prestigious Fédération Internationale de l'Arte Photographique (MFIAP). He had also been Vice-president of the Society. But he was ever approachable and it's as a teacher and presenter that most will remember Barrie, the man to whom many of us owe our first introduction to - and later our real understanding of - digital imaging.

Our heartfelt sympathy goes to Pam and Barrie's family. We very much hope that Barrie's wish that some of his key images, and especially his Fellowship panel, will find a permanent home in the national photographic collection.



Digital Dilemma by Hilary Roberts

Amongst Barrie's first pupils were Hilary and Peter Roberts ARPS. They became close friends. In this piece, originally published in DIGIT more than ten years ago, Hilary describes those frustrating early days. I enjoyed it so much I thought we should reprint it. Barrie Thomas would have loved to read again Hilary's hilarious description of that time all those years ago. Does any of it still ring true to you today?

Not long ago, if you'd said Photoshop to me I'd have thought you meant Jessops. Then Barrie Thomas comes to Solihull Photographic Society to talk about digital imaging. To talk about what? Well, yes, I get the vague idea, and it's very interesting, but obviously far too expensive and high tech to think about seriously. After several weeks of listening to me rabbiting on about Barrie's lecture, colleague at work gets fed up and points out that if partner and I stopped going on expensive holidays to far-flung places, taking hundreds of pounds' worth of slides we then threw away, we could easily afford to buy a computer.

No More Holidays

Why didn't I think of that? I resolve never to suggest we go on an expensive holiday again, persuade partner that we need a computer and get him to agree to pay for it, promising that I will pay back my half by instalments. Ring Barrie Thomas and ask him what to get – place order for three thousand quid's worth of grey plastic. Arrange to go and be shown how to do it by Barrie. Have twenty slides put on CD so we can take them to Barrie's to learn on. Travel to Rainford from Leamington Spa, open CD to put in Barrie's drive and discover that the disc remains in our drive, at home. Feel embarrassed. In spite of this setback, try to look intelligent all day, and as if I am understanding what Barrie is talking about. Barrie says that his fee includes us being able to ring him up to ask him things if we get stuck – fool!

Computer Arrives

Computer is installed. Consider having wheels fitted, as

half the things don't work/haven't been installed properly etc. Shop won't come to us, so days are spent carting everything backwards and forwards. Ring Barrie a few times – he remains quite calm.

Go on holiday to Crete and find a very co-operative old bloke in the park in Rethymnon, and another who insists on taking us on a taverna-crawl. Both agree to be photographed.

Come home and decide to start work in earnest on manipulating slides. Partner discovers Solitaire and Minesweeper and says they are improving his mouse skills.

Stress Management

Crouch over computer for hours on end, working on the two most difficult images I could have chosen – one is virtually all white and other all greys. Finally produce masterpieces. Learn, with a lot of blood and sweat, and 'phone calls to Barrie, how to back up onto disc, and send to lab for conversion to slides.

Slides come back – green. Barrie says it is all quite simple, really. You just alter the image on your screen until it goes green, and then subtract the number you first thought of, send it back to the lab again – and it comes back magenta and with several stripes in crucial places.

Try to hurl computer out of the window, but can't, because I have seriously injured my neck with spending seven or eight hours at a time on it.

Keep trying to get acceptable images from lab. Things get worse. Tell partner he can stuff the computer. I am not going to pay him any more instalments as the whole idea

was a disaster – I am a nature photographer, and I shall stick to photographing butterflies.

Ring Barrie in hysterics. Barrie gets message that I wish I had stayed at home that night he came to Solihull. Barrie remains calm and polite.

Eureka!

Come out of hospital after nervous breakdown, find alternative lab and get good results. Feel very enthused. I have paid off all my instalments to partner. Decide it is time to read the instructions. Work through a few pages of the tutorial and actually manage to learn how to do several things.

Partner tells me one day that he has accidentally wiped Adobe Photoshop off the computer – but he is now managing to complete Minesweeper faster. Persuade partner to invest in more RAM. He decides to buy a sound blaster as well.

Wacky Professor

This means we can watch an American who calls himself a 'wacky professor' telling us how to do things we are

unlikely to want to do – but I do manage to pick up a few useful tips. Make regular visits to osteopath who charges £25 for twenty minutes. Buy hair dye from Boots as have gone completely grey. Transfer old blokes from Crete to places they have never heard of, and put my ex foster-daughter outside a hovel in Portugal. She says she never signed a model release form and she will sue.

It was worth it

Twelve months after we bought the computer I am finally managing to turn out reasonable images which are getting acceptances in exhibitions. My eyesight, my neck and my temper are permanently damaged – but the pictures have won six awards and a Mamiya.

Cliff Thompson (*the* Cliff Thompson) tells me he admires my slide! The computer shop tells me that the computer is now out of date and the chip is unavailable. Tell partner that it is essential that we book very expensive holiday so I can get suitable images to manipulate.

Barrie Thomas has a lot to answer for.

Bringing the story up to date, Hilary adds:

That was how Peter and I started out in digital imaging – like so many other people, with the help of Barrie Thomas. And over the next ten years Barrie carried on helping and also became a very dear friend. He stayed with us whenever he was lecturing in the Midlands and it was always a huge pleasure to see him. In recent years we introduced him to Cuba and travelled with him there four times. When he left England to be with Pam in Australia we missed him terribly, but kept in close touch with the help of a webcam. In February this year I was in Cuba with Barrie and Pam. Speaking Spanish was not one of Barrie's accomplishments, and I shan't forget the sight of him teaching Photoshop entirely in sign language to a Cuban photographer we met by chance. Barrie literally changed our lives, and those of so many other photographers, and we are much the richer for knowing him. Yes, he was knowledgeable, a natural teacher, a skilled communicator. But most of all Barrie Thomas was just our friend – a lovely, lovely man.

Members' Exhibition 2007

Following the success of the Members' Exhibition held in 2003, to commemorate the 150th Anniversary of The Society, it is held every two years. The 2005 exhibition was shown at eight venues. However, the number of entries was very disappointing. To encourage more entries, you can now send your entry either to headquarters or give it to your Regional Organiser. Members sending directly to headquarters are encouraged to send with other local members to reduce costs and the number of packages to be handled. Entry is free but members are invited to enclose return postage with their entries. Full details were with the August Journal and can be downloaded from the website but here is a summary.

The selectors will be looking for current work from all disciplines. The Society supports both the art and science of photography and we hope the final selection will reflect this. Every member may enter two prints but no member will have more than one in the Exhibition. Selectors will be Fellows Mary Atfield, Mike Birbeck, Ray Spence, Roger Reynolds, Bill Wisden and President Prof Ralph Jacobson in company with Committee Chair, Rosemary Wilman ARPS.

Exhibitions Manager Lesley Goode is currently looking for venues for this Exhibition throughout 2007. Please contact her if you have a suitable gallery to hang the prints in your area.

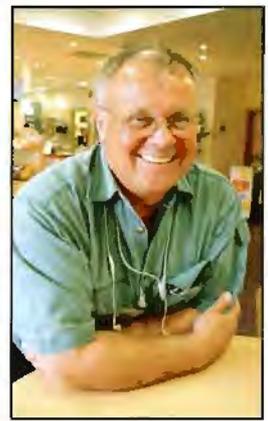
Council is grateful to the Regional Organisers who are assisting by bringing or sending some entries from their Region to Bath. The closing date for entries to be with your Regional Organiser is Monday 9 October 2006 (prior to the Advisory Board meeting on 14 October). The closing date for individual entries to be at Headquarters is Friday 3 November 2006. Judging will take place on Wednesday 15 November 2006.

Mounts must be 40 x 50cm, white and no thicker than 2mm. Unmounted prints may be submitted from overseas. If possible, please send a CD with uncompressed TIFF files of your entries – 6x8 inches at 300 ppi, and a jpeg, max size 1024x768 pixels at 72 ppi for web use.

The copyright of all submitted work must be at the disposal of the entrant. All images contributing to the final photograph must be the work of the photographer. Clip art and other imagery derived from a commercial source is unacceptable, even if free of copyright. The Society reserves the right to reproduce, without payment, any accepted entries in connection with the exhibition and for publicity purposes. All images used in digital format will be of low resolution.

Further details from: Lesley Goode, Exhibitions Manager. Tel: 01225 325720 Email: lesley@rps.org

The Di Group is thrilled to have one its most distinguished members leading its annual event - D-Day Rugby. As well as the special insert in this magazine, here's what John Henshall FRPS says about it on his website. John has also allowed us to give you a taste of what his site offers with this tutorial to help you improve your photos. For more exciting stuff go to: www.chipshoponline.com and see what's on offer.



John Henshall FRPS writes: Cutting edge digital technology never before seen in the UK is set to be unveiled at a unique 'D-DAY' autumn conference dubbed the most important convention of its kind in a decade.

What's Chip Shop?

Well, says John, a Chip Shop is a purveyor of the original British fast food - Fish 'n' Chips. Today it's Silicon Chips of course! Chip Shop has appeared in The Photographer magazine regularly since January 1993 - though John was writing about digital imaging long before this. This makes it the longest running regular series in the world on digital imaging.

I will be heading up the event, which has been arranged for Sunday 29 October in Rugby, and I want to make sure that we have a full day of digital advice and insight that will make the day a 'must attend' event.

Key manufacturers including Canon, Hewlett-Packard and Nikon will showcase their latest state of the art products, hot from the Photokina trade show in Cologne.

I will explain what image resolution really means and give crucial information on how to eliminate dust - the biggest time-waster with DSLR cameras, and one of the major reasons for rejection by picture libraries. I will also talk about exposure and compression. This programme will be a step by step guide on how to avoid quality control rejection pitfalls.

Alan Capel, Head of Content at leading online stock library, Alamy, will be at D-DAY Rugby to outline the company's policy on image submission.

Images that photographers place with libraries like Alamy can earn money for a lifetime and beyond. I will talk about how I have made thousands of dollars in just two years from stock images - including sales of pictures I took as a teenager in the 1960s.

In the Chip Shop archive of Tip Shop under Hints and Tips you'll find articles such as: Preparing Website Images which includes adding copyright overlays to your images; Colour Correction; Photo Stock Library Images; Automated Panoramas; Photoshop Shadows and Highlights Tool; and Resolution.

Photoshop Tips & Tricks

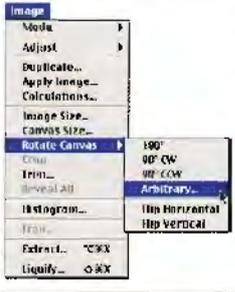
Sharpen up your Photoshop skills with John Henshall

Back on the Level



Photoshop has some oh-so-simple but very useful tricks hidden away just beneath the surface. If you don't know they're there, you'll probably never discover them and spend hours trying to achieve what they can achieve in seconds. The picture above exhibits a very common problem: the horizon is tilted. We've all done it, though not so often since running professional. The problem often manifests itself in scanned images, when the print or transparency was not perfectly aligned in the scanner. It's easy for prints to move when the lid of the flatbed scanner is closed. The result is irritating. How would you correct it?

Peeking around in Photoshop's



menus, **Image>Rotate Canvas>Arbitrary...** looks promising - apart from that 'Arbitrary' tag. What we want is a precise amount but all that Photoshop offers us is a big fat zero. We need a figure to put in here. Not an approximate figure but a precise number of degrees. How do we arrive at the correct figure? Maybe we could guess? About five degrees? Close but not close enough. Maybe we have that old plastic protractor from our school days? If we lay it on a print, or even on the computer monitor, we can measure the angle reasonably accurately. About three degrees? We can do better.

If you know where to look, Adobe Photoshop will tell you precisely the degree of rotation required. Even better, you don't have to enter it into the box - Photoshop will do that automatically for you. And the technique is so simple you'll hardly believe it.

It's called the **Measure Tool** and you can find it hidden away behind the **Eyedropper Tool**. Click on the tiny triangle at the bottom right of the Eyedropper Tool and up pops a menu like this, enabling you to find and select the Measure Tool:



Now open your dodgy image and click on the left of the horizon for whatever else should be straight

and, keeping the mouse button pressed, drag across to the right of the horizon. Release the button and you will have a line drawn along the slanting horizon. You can still move its ends to adjust its precise position. I have emphasised the line in this screen grab to show the idea more clearly - the real line would



be difficult to see. If you look in the **Info window (Windows>Show Info)**, the angle of your line from the horizontal will be indicated. So all you have to do is copy this

figure into the **Rotate Canvas** box, right? Wrong!

Now for the really clever part - Photoshop does it for you, even down to deciding whether the rotation needs to be **CCW** or **CW**. Check **OK** and you get the image above. It's that easy.



Photoshop enlarges the canvas size, so that none of the image is cropped. Cropping this particular image to eliminate the white canvas was tricky. The woman on the right is very close to the edge of the shot and eliminating all the white below her would have meant she had to be cut into. So I just cloned a little sand to cover the white. **Job done.**



Digital Portraiture

Graham Whistler FRPS guides us into studio portraiture in the digital age and the principles of good lighting

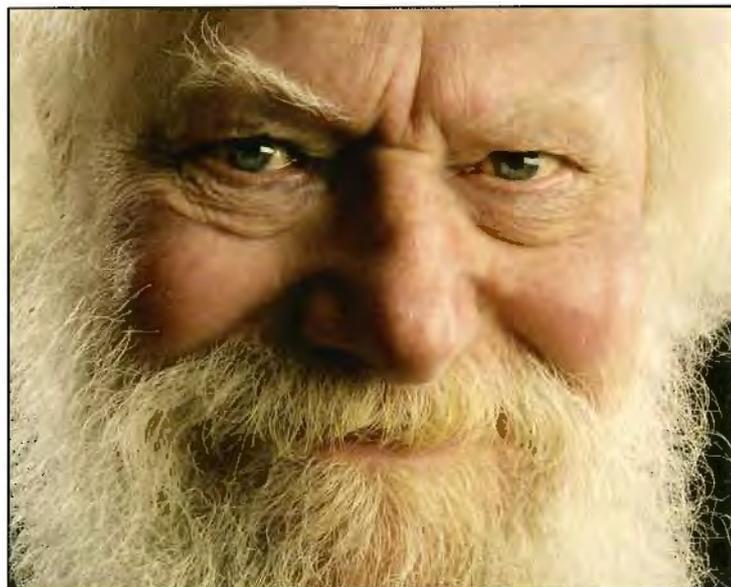


Portrait photographers have benefited greatly with the advent of digital for at last they have perfect control of all stages of production. Working with most digital SLR cameras it is possible to monitor all shooting stages. Setting up the studio becomes an exact and repeatable process. Balancing simple or complex lighting set-ups and adjusting lighting contrast is simplified by use of the LCD camera monitor. All these tests can be made before your sitter or model arrives for the session. With custom white balance perfect colour can be obtained and saved to camera preset memory (pro SLRs have several preset memories for various set-ups) to be recalled and used in the future.

When the sitter arrives final and exact adjustments to lighting can be made and a few quick test exposures confirm that all is well. With camera connected directly to a lap-top or desktop computer results of the shoot can be monitored and pictures can be seen on a large screen only seconds after taking. The digital SLR is connected by Fire-wire or USB2 cable of at least 12m giving the photographer enough slack to move fairly freely round the studio. Some of the latest professional cameras like the Nikon D2X can even be connected to the computer by wireless technology. A small transmitter fits on the base of the camera and the signal can be picked up by most wireless networks; many laptops are also wireless enabled. This gives the photographer good freedom of movement in the studio with no trailing cables to trip over but data transmission of large 20MB RAW files may as yet be too slow. With the Nikon transmitter costing about £550 as yet I have been reluctant to invest in one!

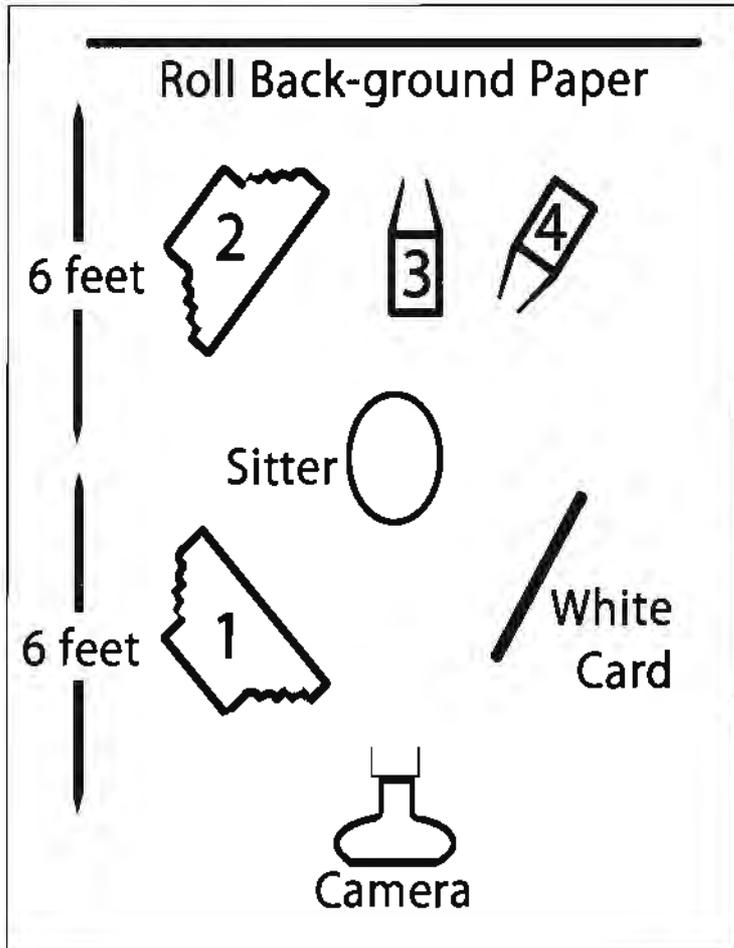
USB2 gives good data transmission speeds and using Nikon Capture 4.4.0 Software in tethered mode 20MB NEF Raw files open fully with a reasonably fast PC in about 8 seconds. (The new Nikon Capture NX software now out promises to be much faster.) Seeing the digital pictures so quickly on a large computer screen gives the photographer every opportunity to make perfect technical and creative images. The computer screen should be turned away from the sitter while you are shooting to avoid them watching for the next picture. After shooting several pictures pause and turn the screen enabling you both to review results. Even professional models find this very reassuring. Bad pictures can be deleted at once: inexperienced sitters find this helpful and become more relaxed as the session progresses. Faults with make-up pose or lighting can be seen at once and corrections made. Histograms can be viewed to check for exposure errors: if in doubt underexpose slightly to avoid blow highlights particularly when back lighting is used with blond or light haired sitters.

Studio set-ups still follow the same basic rules that have been used for years. The sitter should be placed on a simple backless chair if possible at least 6-8 feet away from the background. This will help to avoid shadows from the lights falling on the background; also long lenses can be used to keep a complex background out of focus. With back lighting great care must be taken to avoid any light falling on the surface of the lens causing flare so use a good deep lens hood! Continuous rolls of colour studio paper can be used rolled down from a stand well above the level of your sitter's head in a seamless curve towards the sitter, and forward (under the chair) towards the camera if full length pictures are to be taken. I use basic "wrap round" lighting



as a starting point. With the sitter facing towards the main lights with body at 45 degrees to the photographer, the head is then turned towards the camera as lighting is set. I use two large metre sq soft boxes on my studio flash heads. The main or modelling light (No 1) is at 45 degrees to camera and raised to be above the sitter's head. Height should be enough to give a reasonable nose shadow without losing the all important eye detail. Only this light is directly on your sitter's face.

Care must be taken to get a good catch light in the eyes. (Several catch lights are bad news and need retouching out in Photoshop.) The light needs to be set with great care particularly if your sitter has spectacles! The gentle progressive shadow from the soft box adds shape and modelling to the side of the sitter's face nearest to camera. The shadow can be filled in by use of a large white reflector with lighting contrast adjusted by moving the reflector in or out. With digital a few test exposures helps you set the exact level of fill in required.



A second soft box (No 2) is placed behind the sitter as shown. This gives rim lighting to the hair and side of the face; also if hands are included they too will be rim lit to dramatic effect. This light is often set to be brighter than the main modelling light (No 1). The combined use of the two soft boxes gives the wrap round lighting that gives character, shape and roundness to the sitter's face. Light No 4 is a flash head with honeycomb grid or snoot fitted to give a very directional hair/rim light to the back of the sitter's head. Together with soft box No 2 this back lighting of the sitter's head adds dramatic interest to the portrait and avoids the top of the head merging with a dark background. A final light (No 3) on the floor behind the sitter can be focused on the background to give a graduated tone behind your sitter's shoulders.

Before you start the shoot spend some time getting to know your sitter: spend some time relaxing with a cup of tea. As you both talk you should observe your sitter noting mannerisms and features. Think about how you can use lighting to enhance the sitter's good features. Think about camera angle or shadows to hide bad features. As you move into the studio your ability to converse will put people at ease.

As you start to work keep talking to your sitter advising what is going on. Set up your camera at eye level. Low angles will make the jaw-line too heavy; high angles lose eye contact and make no friends with bald sitters! With bald or light haired subjects great care must be taken with angle and strength of your two back lights.

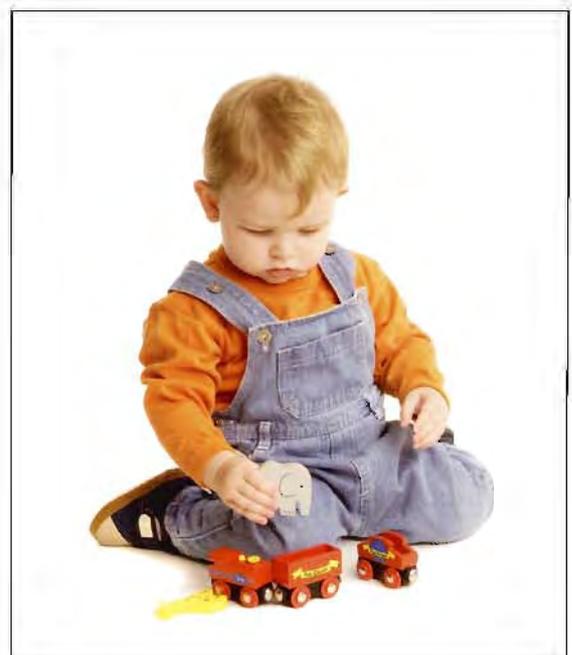


Your first few exposures help to relax the sitter getting them used to the flashes and the camera. Be positive in your direction and quick to praise when you get a good picture. As the session progresses pause and look at the images on the computer. If the sitter is unhappy take time out for checking hair and make-up. I like to work fast, so tend to shoot hand held for more relaxing pictures - the tripod can slow you down and is not required with studio flash (1/800 sec or faster).

As the session draws to the end, tell the sitter. Often your last few exposures will be relaxed and the best images of the day.

So far I have only talked about fairly dramatic low key lighting. High key with a white background is simpler to manage and works well with young active children or is softer and kinder on older ladies. With the white background there is no need for rim lighting. Two soft boxes will work well in much the same position with white card fill in. The floor and rim spot are fitted with standard flood-light reflectors and turned round on either side of the background. They are adjusted to overexpose by one stop.

I hope this will help you get started. Good luck.



ILEX Press image competitions - How good are you?

In conjunction with the launch of their new title, *The Book of Digital Photography*, which is reviewed on page 23 ILEX have generously sponsored two new competitions, with prizes of the new book for the three winners. The first is for the:

- **Most innovative use of digital imaging**

- as exhibited at the Digital Decade D-DAY Rugby symposium on 29 October-see special insert in this magazine.

Each DI Group member may bring a 40x50 cm mounted print for exhibition on the day and, in addition to the usual print prizes and raffle, one print will be chosen by the Chairman for the ILEX prize. So get busy on that image! Bring the print, mounted on card, for the instant exhibition at Rugby and your chance to win.

The second is a DIGIT competition and the winners will be announced and the winning images printed in the winter issue.

There are two categories:

- **Best image by a member under 40**

- we want to encourage younger members to submit their best work; and

- **Best Black and White image.**

Each entrant should supply a short note - 100 words maximum - on how they did it (concept, software etc) since we do want manipulation of some sort, not just straight photos. Send your images to editor@digit.org.uk, sized at 300 ppi about 10 cm on the longest side as a jpeg file initially. Larger versions may be needed later for printing. Send the text as a Word or rft document. Last date for receipt of entries is 30 November so start planning now and let's have those images for your chance to win a copy of

ILEX's *The Book of Digital Photography*.

Go to: www.ilex-press.com for other titles
and remember the DIGIT discount - see page 23.

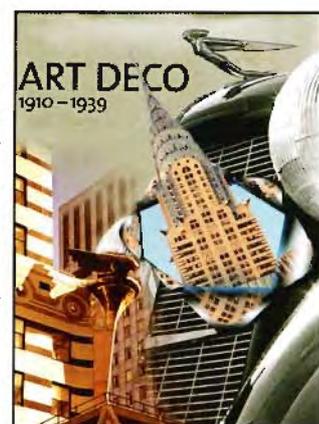


Photo Harmony - New RPS Distinction - Robert Albright FRPS explains

The Council of The Royal Photographic Society has endorsed a proposal to create a new category of Distinction at Licentiate level. This will be called Photo Harmony. There are certain similarities with the current LRPS in AV and applications will be considered by the AV Distinctions Panel. However Photo Harmony is targeted at a different audience (and potential membership) being designed to enable applicants to demonstrate their skills in the production and visual progression of images linked to sound. No script or story with a specific beginning, middle and ending are required. The emphasis is on matching the images with appropriate transitions and harmonising them with the sound. The selection, quality and sympathetic progression of the images is the prime factor being assessed although the appropriateness and recording quality of the soundtrack will also be taken into account. The purpose of this category is to display a set of images which harmonise with each other and with the sound used. The production should be constructed so that images dissolve harmoniously in terms of colour or tone and graphic design. The new category is not designed to display images which may be excellent when considered individually but which fail to harmonise with each other and with the sound chosen. It is the norm that the sound and the images should start and finish together. Where music is used, it is recommended that the original ending of the music is preserved rather than an arbitrary fade-out.

AV differs from this category by placing far greater emphasis on the balance between concept/story, script, sound recording/editing and images. There are many RPS members and prospective members producing image series in the way described so we want to provide them with an outlet to test their abilities. Some may later move on to AV but many will wish to progress through the other Distinctions Panels. We aim to stimulate interest with this new category and to gain new members for The Society.

The Distinctions Panel meets on Saturday 30 September 2006 at Aldbourne, Wiltshire and Sunday 29 April 2007. Applications for Distinctions should be made via Carol Agar at The RPS, Fenton House, 122 Wells Road, Bath BA2 3AH Tel 01225 462841. Guidelines are available as hard copy from Carol or downloadable in pdf format from The RPS website, www.rps.org or www.avg.rps.org. Advice on draft applications may be obtained from the Chairman of the Panel, Robert Albright FRPS at robert@robertalbright.co.uk.

On 30 September we also plan to hold a Distinctions Advisory Day. Potential applicants for Distinctions in AV (L, A or F) or in Photo Harmony (L) are encouraged to bring their work for feedback and advice on improvements. It is essential to notify the organisers by 10 September 2006 by email to robert@robertalbright.co.uk or by post at Treneer House, 6 Turnpike, Aldbourne, Wiltshire SN8 2BZ so that appropriate plans can be made. The cost will be £15 for those bringing work for advice and £10 for those only attending the day (applicants for Distinctions excluded).

True Digital Infrared as seen by Dr Ken Deitcher FPSA
Contact Ken at: kendeitch@aol.com to discuss these techniques further.



Black and white digital infrared (IR) can be simulated with various software programs such as Photoshop, Photoshop Elements, Paint Shop Pro and many plug-ins. In traditional photography, Infrared was always a problem. The film had to be loaded and unloaded in the dark. The exposures were mostly by guess, and setting the focus could be questionable.

True first generation infrared b/w imaging can be accomplished only with digital cameras which were manufactured without an infra-red cut-off filter over the sensor. Most of the newer cameras have this filter in place. To determine if your camera can "see" IR, place an IR filter over the lens. Point a TV remote (IR controlled beam) toward the camera. If you can see the beam of light through your viewfinder, or on your LED screen, your camera can record IR.

This is only part of the formula to record true IR. First, can your camera sensor see IR? Second, can you visualize the scene through the viewfinder or LED screen? Third, can your camera record in B/W. Fourth, can your viewfinder visualise the scene through the extremely dark filter? This ability to "see through" the filter is aided by the electronic viewfinders in some digital cameras that increase the optical gain, so that your subject can be seen in very dim lighting conditions. In these cameras, called advanced point and shoots, you can also visualise the image before you



take it.

The Konica-Minolta Dimage 7, a 5.2 MP camera has all the requisites for IR imaging. The only additions needed are a 49mm IR filter and a cable release. Although this camera is not manufactured any more it can be purchased, used, from internet sites such as eBay.com and Amazon.com.

I use a tripod most of the time when using this camera, as the exposures at ISO 100 - 200 and f8 can be as long as 1/2 to 2 seconds. Hand held images can be taken on very bright days. The most important point is to set the camera on b/w mode when taking IR images, although interesting effects can be obtained by combining b/w IR images with colour.

When taking IR images you should have a bright day with preferably a blue sky and white cumulus clouds, a foreground point of interest and green foliage. The foliage will look like fresh fallen snow, while the blue sky will turn



quite dark accentuating the clouds. When photographing water, such as lakes and ponds, the water will turn black. When processing your image in your computer, very little manipulation is required. The first step is to check the Levels to increase the highlight brightness and to darken the shadows. These areas can be further tweaked using Photoshop's Shadow and Highlight filter. I often add another layer mask set to the Brightness and Contrast filter. Once this is done, use Unsharp Mask and print.

I usually print the image using my Epson 1280 on Epson heavyweight matt paper, setting only black ink as this prevents any colour casts in the image. If you desire you can tone the image in Photoshop by using hue/saturation or converting to grayscale and using duotone or tritone colours.

Several of the high-end digital cameras can be retrofitted so they only take b/w IR - Canon D30 and D60, and Nikon 100 and the Digital Rebel (300D) for example - see www.irdigital.net. However, your camera is now dedicated to b/w IR and the IR image can be seen only on the LED screen after the image is taken.

Time to test your photographic, not to say DI, brains, with Carole Hewer's Wordsearch! You should be able to find no less than fifteen photographic expressions hidden here, well-known to DI Group members. Try it - just work horizontally and vertically, and for one tricky one diagonally. The first one's easy, starting at the top left corner. If you've read the magazine from cover to cover you'll have seen many of the words. Really stuck? You could peep at page 29 for inspiration. Let us know if you enjoyed this little puzzle.

L	O	S	S	Y	A	F	X	C	R	F	G	Y	H	C
A	S	E	D	F	R	I	C	R	T	H	T	E	B	O
Y	A	X	R	T	T	L	E	X	I	P	A	G	E	M
E	C	Y	U	O	M	T	F	Y	N	I	L	A	M	P
R	Y	E	S	W	W	E	X	G	B	D	P	M	V	R
S	B	S	E	A	D	R	P	H	D	F	S	I	F	E
F	A	A	A	G	V	S	O	K	R	F	X	D	R	S
L	W	O	I	N	N	D	H	Y	G	F	Z	B	F	S
R	C	G	G	I	J	C	S	S	K	I	D	U	F	I
P	B	U	U	R	E	S	O	L	U	T	I	O	N	O
S	T	B	B	E	J	W	T	S	B	G	N	K	V	N
T	N	R	O	H	M	F	O	O	D	B	K	G	J	R
N	A	F	E	T	D	B	H	V	E	Y	J	Y	J	P
M	D	I	G	I	T	N	P	W	F	H	E	X	K	U
Y	S	X	A	D	S	J	T	S	A	R	T	N	O	C



Have you had a look at the Society's website recently? If you haven't, you should. It's been dramatically overhauled and is now a smooth, clear tool. As well as all the information about the RPS there's a useful Forum to exchange views and seek advice and you can display your own images in an excellent Portfolio section which is really easy to use and gives you your own area. Log on to: www.rps.org



Connie by Malcolm Cousins won the online folio competition in July 2006. To enter your image and vote and to display and comment on images log on to www.digit.org.uk



Summer 2006 DIGIT - an apology

In the exhibition issue I managed to transpose first and family names in some cases, confuse distinctions and even incorrectly spell one name. Apologies to Paula Davies ARPS, Geraint James ARPS, Dorrette McAuslan LRPS, Roger Norton LRPS, Stelio Stefanou LRPS and anyone else I may have got wrong. Sorry.

Editor

Letter to the Editor

Our regular contributor Ray Wallace Thompson ARPS writes from Yorkshire:

A RAW Deal

2005 had been a rough year for us. The MMD (Marital Managing Director) had a new hip and my wrist CT op left me with two fingers and thumb frozen, so a little cheering up was in order. Having sorted out something for MMD I had a chat with John at Fotospeed and took delivery of Fotospeed CIS. I'd got a bit fed up with changing cartridges in the Epson 1290, had two disastrous experiences in the past with previous CISs so this was engaged upon with trepidation. However all was well, and even though I have a certificate for hamfistedness I had the thing installed and working in less than twenty minutes. I still use cartridges in my back-up Epson 830U printer and these are Jet Tec from Mdirect and since using these I have experienced no blocked jets in either printers.

Christmas came and subsided, my birthday hove in sight, and Maurice (my worst friend) who had a new PC not long ago, was showing off. So, thought it was time to get myself modernised; better start shooting in Raw. This was the moment to bring in experienced advice and it happens that in our corner of England we have a software/hardware guru, Bryan. I've known Bryan around 40 years and - well aware of my hamfistedness - he straightway said: You better get Adobe CS2 in which it will be easier for you to handle Raw. However CS2 will not run in W98 so XP will be required.

Then he went on: I know you mess around with lots of printing trial runs so you really ought to be Profiled. Well, I said: I'm using Fotospeed's Pigment Friendly Gloss and they will do it for me. His reply was succinct - Yes, and you'd then muck it up. I'd better do it for you.

The result was two days utter torture. I sat with 'im from 10am to 8pm two days running watching my mixed up PC being sorted, XP then CS2 being installed and checked. Then came magic when he profiled Monitor, PC, Printer, Ink, Paper ad then me. On the third morning he dropped in to see if I'd survived.

So was it worth while? You bet it was. The whole darned set up wysiwygs like fury. It is a joy to see my visual work on the screen being printed as intended without messing about with trial prints. However using the 1290 for ordinary mail work is like watching paint dry but this was anticipated because I have the smaller Epson 830U as a backup. One thing though... my Bank Manager is cross: he has the stupid idea I should lend HIM money.

Time passed, well, two days did, and we shot over to Fountains Abbey and took a couple of Raws with my Minolta A. Then a day later to Hardwick Park and another exposure or two. The results are, to me, nothing short of startling and I sent some to Alex Dufty to see if one would scrape into the DIG Exhibition. It did.

I write this because I am one of DIG's rather thick types and in the hope it will give others of similar status some encouragement. Anyone wanting to chat will be welcome.

Now, like my contemporary Wallace (not Grommit), I'm off for a spot of Wensleydale and Malt.

Ray



Byland



Rievaulx



Fountains Abbey



Colour management: A black art?

We all struggle - often frustratingly - to get our prints to look just like we saw them on the screen. This new series is aimed at helping you to clear the mist and know how to achieve that colour match from monitor to print. Below we start with the monitor calibration guide from Phil Binks, who works in colour management at Bodoni Systems. Phil has been a keen photographer using both film and digital for 25 years. Call Phil at Bodoni

Systems on +44 (0)1895 825776 for further advice and available calibration systems and see Bodoni's online shop at www.bodoni.co.uk

Seeing the right colour on screen

The monitor is the device which you will ultimately be using to first judge image colours, and is the device used for judging subsequent changes. This makes it the most



important device to be calibrated and profiled. Both CRT (Cathode Ray Tubes) and LCD/TFT (flat screens) can be calibrated. However, do remember that LCD/TFT screens have fixed black and white end-points, meaning that only the shades between can be lightened or darkened.

How to calibrate your monitor

Visual calibration methods such as Adobe Gamma are unreliable, as colours, environmental aspects and dark and light shades are often misjudged. The range of colours used is also very limited, leading to discrepancies in both highlight and shadow areas

Important notes for Windows users: Remove Adobe Gamma Loader from your Start-up items folder, as Adobe Gamma is likely to conflict with any alternative monitor calibration. And NEVER save the monitor profile using an existing document profile name such as sRGB or Adobe RGB.

Colorimeters

Hardware monitor calibration devices are called colorimeters. They measure the response of the screen to reproduce a range of colours, typically Red, Green and Blue, then neutral tones. High quality colorimeters include Gretagmabeth's Eye-One Display2, X-rite's Monaco OPTIX XR and Colorvision's Spyder2. These devices will all calibrate both Mac and Windows PCs, LCD and CRT monitors.

Using a colorimeter

With the guidance of the colorimeter, you first adjust the contrast and brightness (if you have suitable controls) on

the monitor, to achieve the working white point. This process is often followed by measured RGB adjustments. This is the calibration. The colorimeter then performs a series of colour measurements and writes the file: this is the profiling.

Important notes for LCD/TFT users

Following the instructions of your colorimeter's software, you may be asked to change the contrast settings on the screen, typically to raise it to 100%. IGNORE this request! Adjusting your LCD monitor in this way will not help your colour calibration and may even prevent it from working, giving awful results. Leave the contrast setting at the factory default, often 50% on a 0-100 scale.



Also, RGB controls (if you have them) on the LCD monitor are often best left at default settings. Brightness adjustment requests however should be followed on an LCD monitor.

Presets

Most high-level colour calibrators have two calibration modes, Easy and Advanced. Easy mode will simply calibrate the monitor to standard default settings - often good for Laptop and low end LCDs. Advanced mode gives you some options to select. The following guidance should help.

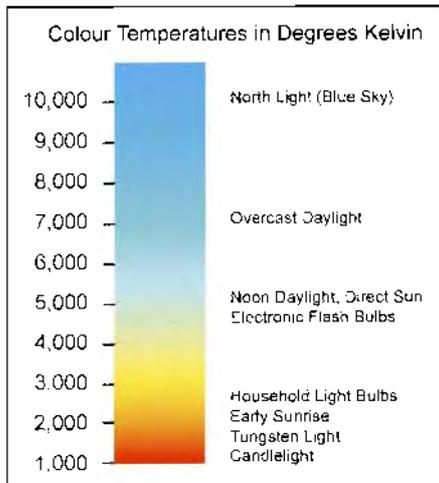
Monitor settings - white point

Well, if anything were to prove that colour management is a moving target, the white point consideration is it! Whiteness depends upon the lighting. If you shine an orange light on a white piece of paper, then the white paper appears orange. So, what is a white point?

The white point setting is basically asking you: What type of light do you want the image to be shown as being lit by? Or put differently: In what lighting will you be viewing your finished print?

Morning light is a different colour from mid-day light, or evening light. This colour is measured in Kelvin (K) and referred to as colour temperature. Loosely, as shown in the diagram below, an orange warm light has a lower number - 4500K - mid-day light is about 5500K and cool blue light would be about 9000K.

The recommended settings for white point on a CRT monitor is 6500K or D65 as it's referred to. This setting is recommended as it is most likely to match the whiteness of your printed paper. 6500K represents daylight on bright day, with a light cloud covering. 5000K is also used,



especially in the USA, but is rather too warm for most tastes, and doesn't represent the whiteness of most photographic/inkjet papers.

White point settings for LCD screens can be set to 6500K, but they often look better if the Native setting is selected. Native retains the fixed white point of an LCD, as measured by the

colorimeter. This improves the tonal gradations up to that white point.

Monitor settings - gamma

Gamma adjusts the mid-tone lightness of your monitor. It has the same effect as raising or lowering the mid-point of a curve. Gamma 1.8 appears lighter than 2.2, displaying lighter shadow details. Apple Macintosh computers were originally manufactured to use a 1.8 gamma, whilst Windows uses a 2.2 gamma. Today, it is common to set 2.2, even for Mac users.

You may wish to experiment with these settings to find which you are happiest with and, ultimately, which most closely represents your printer's tonal range.

Monitor settings - luminance

Luminance is the measure of the brightness of the screen most regularly measured in cdm^2 (Candelas or Candles per square metre). For a colour calibrated monitor these target settings are recommended:

- CRT 100 cdm^2
- LCD (Laptop) 100 - 120 cdm^2
- LCD (Standard 8 bit model) 100 - 120 cdm^2
- LCD (High-end & 10-bit) 120 - 140 cdm^2

Generally speaking, achieving a higher cdm^2 up to the 140 mark is ideal. Above this you will have a brightness value which will simply not be replicated on printed output. The figures above are recommended as they are mainly as good as you will get with the particular monitor type.

As your monitor gets older it is likely that the measured level will reduce to a point where you should question the effectiveness of the monitor for colour critical work!

Back to the darkroom!

Monitors are susceptible to light reflection. Light has the effect of reducing the contrast range by raising the black point (darkest point) to a dark grey. The colours also

become less saturated and have a corresponding reduction in tonal range. So here are some monitor tips

- View your monitor in shaded, dim or dark conditions;
- Keep the lighting conditions as constant as possible between calibration and viewing/working;
- Don't calibrate during the day, if you only work on your images at night!
- Turn on your monitor to warm-up an hour before you calibrate or begin colour-critical work.

How do I use the monitor profile?

The calibration function always ends with a *Save profile as...* dialogue box. Once saved with your chosen name, both Windows and Mac operating systems automatically reference the profile. By default the software saves the profile with the current date as a name but this serves only to fill your profile folder with useless old profiles! So, save the monitor profile using a unique name, perhaps that of the monitor, or your profiling device, for example OPTIX XR.

It is very rare that you need to select the monitor profile within an application dialogue box, and it should only be chosen if the application specifically asks for the monitor profile.

You can check on Windows XP that the profile is being used by navigating to the Displays section in the Control Panel. Click on Advanced and select the Colour Management tab, as shown here.



The screen shows you the current working monitor profile, and any others you may have created using different names in the past. Mac OS X users can simply check the System Preferences>Displays>Color tab to reveal which monitor profile is currently being used - it will always be the latest one made, unless you select an alternative.

In the next colour management instalment I will provide you with more background information to help you understand which settings to use to achieve matching printed colour. And remember that Bodoni Systems offer Colour Management training on a one day course at our offices in Harefield, Middlesex. If you'd like more details please ring or email me, mentioning DIGIT, at phil.b@bodoni.co.uk



Paula Davies ARPS joins the A Team

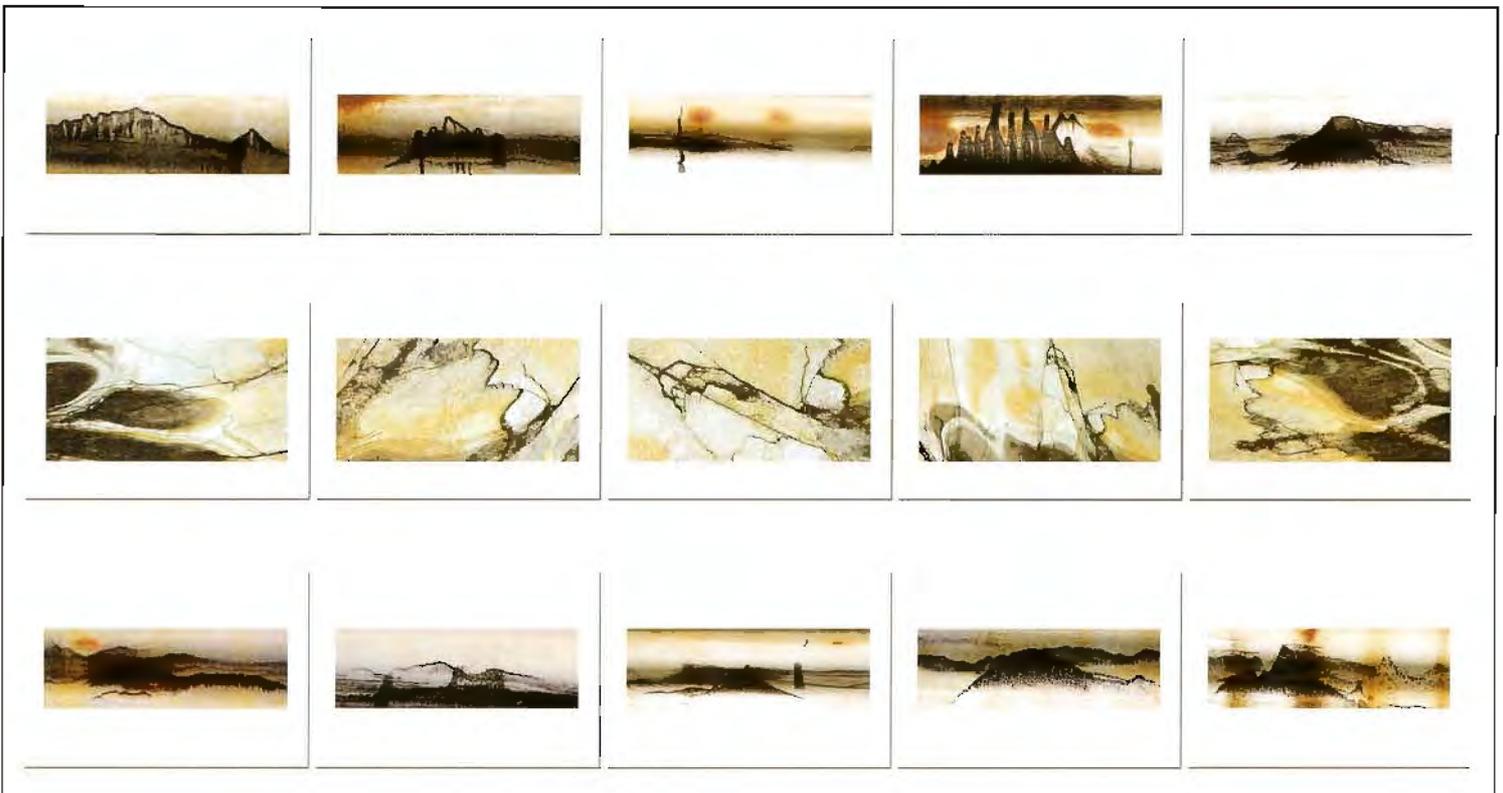
Encouraged by the Licentiates on pages 24 - 27?

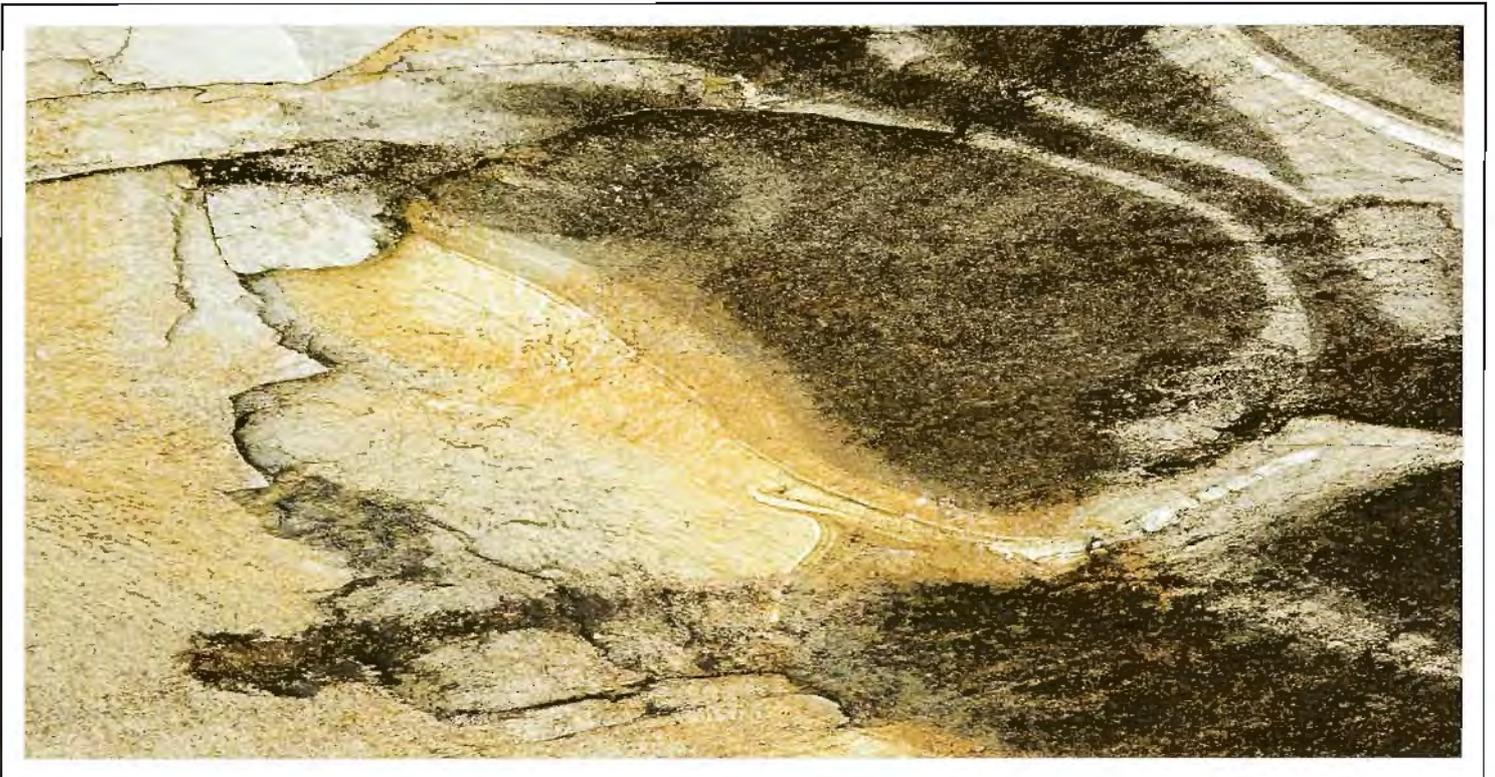
Well here's the next stage. The images speak for themselves against Paula's statement of intent and the layout of her panel, shown below.

Finding Landscapes

It is well known that a photograph may not be all that it first appears. What may look like a mountainous landscape could, in fact, be drips of paint on a building which have been weathered by the wind and rain. Turn the picture upside-down and what can you see?

Maybe some oil has been spilt on slate. The resulting colours, together with the textures etched over the years by the weather could be imagined as a rocky beach scene. In my photography I enjoy finding small parts of man-made or natural objects and taking a close-up photograph which gives the impression that it is something else entirely.





Baffled by CDs and DVDs?

Bill Henley LRPS takes us through some of the mysteries of CDs and DVDs and how to use them to store and display your photos.

If you go to: <http://www.digitfaq.com/media/dvdmedia.htm> you will be able to access one of the websites that rate the quality of CD and DVD disks. In addition to listing the manufacturers and grading their products there are links to download small freeware applications (PC or Mac) that enable you to find the manufacturer of any disc. There are quite a limited number of factories in the world producing discs. The brand name on the disc does not indicate who has actually produced it. That information is encoded on the disc itself. Disc qualities range from grade one for archival quality of perhaps up to 100 years to grade four described as coasters as that is their only real value. In general the gold coloured discs are the best for long-term archival uses but also the most expensive. Prices range widely and there are some low cost CDs and DVDs that are good value so it is worth checking the manufacturer. The format and write speed must be compatible with your hardware and software and the specifications need to be checked. This is especially true for older systems that may not recognise newer products. For example DVD-R is compatible with more systems than DVD+R but any new computer or peripheral should cope with both. The write speed on the packet is the maximum for the disc but the actual speed cannot exceed the maximum of the writer. Buying a more expensive 16x disc will be a waste if your writer is only 4x.

There are a variety of possible writing formats. A difficulty has been the compatibility of the recorded discs between PCs and Macs and whether the disc will play on a standard domestic CD or DVD player. Newer writers should be able to implement a Universal format and newer computers and domestic players should read the discs. However, it is always worth testing whether this is true for your discs and equipment. All the discs are preformatted with a spiral data track that is reminiscent of the old vinyl records. Along the track is written a series of "pits" to represent a long trail of zeros and ones. A laser is shone onto the rotating track and the resulting reflections are read as binary numbers (eg 100010011). The firmware in the reader interprets the signals according to the format of the disc with the leader part of the track providing the format information. Commercially produced discs have physical pits but the writable discs have a layer of a dye that is changed by the laser in the writer. It is this dye that can deteriorate with time and make the data unreadable. DVD discs are similar to CDs but have a much tighter and longer data track with the data therefore being more compressed. The read/write formats for the two are therefore different.

Inherent differences in the physical quality of the discs affect the longevity of the data. For example layers may be poorly bonded, the chemical composition may be impure and the dye may be inferior. However, even well made discs need to be stored correctly to prolong their life. In addition to avoiding finger marks and scratches discs need to be stored out of strong light. It is advised to store them vertically to prevent distortion and also to avoid extremes of temperature and humidity. Any writing should only be on the label side and using an approved pen that will not dissolve into the plastic. There are systems such as Lightscribe that produce professional labelling.

Both CDs (700 MB) and DVDs (4.7 GB) may be used to store data files in addition to their use as audio CDs or video DVDs. They provide an alternative to writing to hard disks and should appear on the computer desktop simply as another storage device. It is possible to buy rewriteable CDs and DVDs but my personal view is that such discs are less reliable than non-rewriteable and that the cost of standard disks is low enough to make rewriting uneconomic. If there is a need for a rewritable system it is probably better to buy a hard disk as they have dropped significantly in price. For security it may be worth having copies of valuable image files on more than one system in more than one location. This is especially advisable if you have doubts about the longevity of the data on CD or DVD discs.

I have worked a great deal with PCs but my personal choice of computer is the Mac. I know that the hardware is consistent across all Mac and that all the provided software is integrated. I do not have to worry about which DVD standard to use or whether my DVDs will play on a domestic player. When a blank disc is inserted it simply appears on the desktop as a disc item. Files may then be dragged onto the disc icon. If you double click on the icon a window appears that shows you the files that have been dragged and an indication of the disc space available. It is then possible to name the disc and then instruct the system to burn it. You can set the disc to be burnt at the maximum speed possible or at a lower speed in order to increase the reliability of the burn. I always select the fastest speed and so far have not had a problem. The progress bar indicates both the progress of the burn and of the validation at the end. The disc then appears on the desktop and may be read or ejected. The disc is then readable on Macs, PCs and many CD or DVD players. However the files also need to be in a format recognisable by the different systems. QuickTime and JPEG files are recognised by many domestic players. I have normally had no problems with Microsoft Office and Photoshop files on PCs although some older PCs with "interesting" third party drives may stutter a little.

There are a number of Mac applications that can produce audio CDs. Both iTunes and Garage Band come "free" with the Mac system and will write to CD - Garage Band creates sound files and iTunes stores



and plays audio files. It is generally a matter of selecting your audio within the application and going to the menu item that says, "write to CD". You are then prompted to insert a blank disc, to name it and then to burn.

Writing to DVDs is equally simple. Both iMovie, iPhoto and iDVD are packaged with the system and have the option to write to DVD.



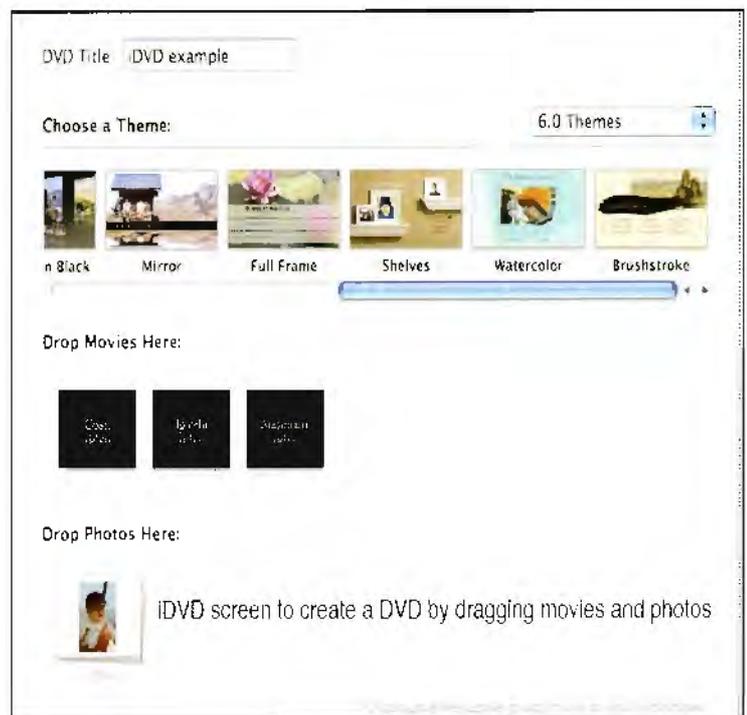
The Apple professional applications such as Final Cut Pro, DVD Pro and Aperture are similarly equipped. The discs produced on my Mac have always been playable on any DVD player to which I have had access.

In iPhoto it is possible to create an album into which may be "placed" images that have been selected for a slideshow. The images may then be placed in

a desired order and the duration and transitions defined. Basic photo adjustments are possible, sound tracks may be added by selecting them in iTunes, the Ken Burns effect may be added and then a menu item selected to send the slideshow to iDVD.



Alternatively the images may be imported into iMovie and a sequence created. Once again duration and transitions may be defined but iMovie has the facility for more complex editing and the use of titling effects. It is possible to add chapters that will then enable scene selection within the



DVD menu. There is also the facility to add and edit a soundtrack. The movie may then be sent to iDVD.

In iDVD it is possible to use "Magic DVD" to create a DVD with complex predefined menus or to build a project from basics. There are a range of predefined themes with matching menus and sub menus.

The movies and slideshows are dragged into the iDVD window. Sound tracks may be added to menus by dragging tracks from iTunes or Garage Band. The project may be previewed on the computer with an onscreen

DVD controller.

Once the project is complete it is a simple matter to select burn to DVD. The later high end Macs will burn to double layered DVDs with double the capacity of the single layered (2 x 4.7 GB).

The end result is an extremely professional quality DVD that will play on domestic players and is a very good way to share your photographs.



(For more information go on the web and type words such as "longevity" and "DVD" into Google.)

Merging Images

The whole photographic community was saddened by the loss of Barrie Thomas FRPS, a great teacher and encourager of those new to digital imaging. In my last email conversation with Barrie he told me he would not now finish his next planned book. Typically generous, he offered the first completed chapter to DIGIT. It's a valuable subject, all about masking and removing a body from one image and then placing it into another. This key area is one in which Barrie himself excelled, and it's written in his very clear way to help those who are new to this technique.

Merging Images

In creative photography we frequently need to combine images. Many users find the process daunting but it need not be if you have an understanding of layer masks.



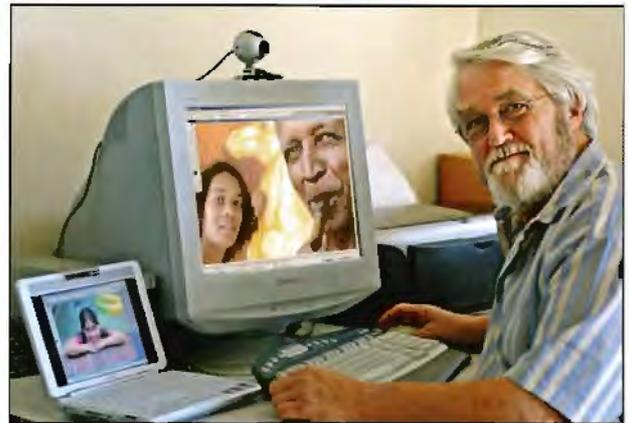
Original images



Our task here is to remove the man from the dull background of the original picture and place him into a new setting.

Many people encounter problems when trying to cut around an area that is to be removed and further difficulty in making the edges appear seamless. The method shown here is foolproof and can be used in any situation.

To create a similar background take a look at Chapter 11



The late Barrie Thomas FRPS at work at his home in Australia on a merged image - Man and Woman - which was shown in the 2005 members' exhibition.

Making the move

Using File > Open, find the folder containing your pictures and double-click the image names so that they open onto the desktop. If they are too large to fit on screen, click the image to make it active and press the minus key, whilst holding down Ctrl and Alt (Option). This is a smart way to resize the image on-screen; if you want to make the image larger press the keys as before but use the plus key.

Select the Move Tool (V) and click on the man. With the mouse button held down drag the man out of the frame and across the screen into the new background. Initially nothing seems to happen but when the cursor enters the frame holding the background, a small arrow attached to a plus sign appears; release the mouse button now and the man will magically appear.



Move tool (V)



Dragged image

Keep it clean

We will not need the original image of the man again and therefore we should close it down. Good practice dictates that we should not leave images scattered around the screen if they are not being used and the same rule applies to unused programmes that have been left open. Photoshop is a very memory hungry application and to allow it to do its work efficiently we must keep the working area 'clean', it is not sufficient to just collapse the images since they are still using valuable RAM.



Positioning

Don't worry if the man is not in the correct final position a new layer is automatically created so we can easily reposition the image even if the edges of it appear to be outside the frame. If necessary click on the upper layer in the layers palette - the one with the man - to activate it, and then use the Move Tool (V) to pull it into place.

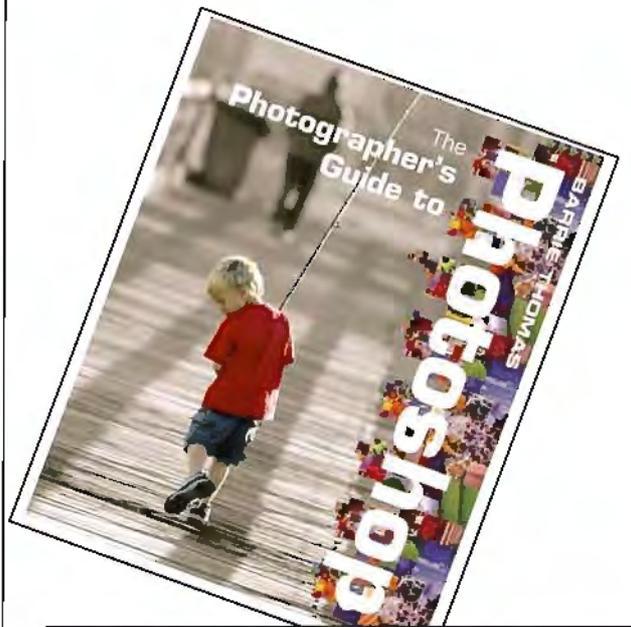
The active layer at any time is dark blue, so you can tell at a glance which layer you are working on. If you are unsure of the layer when working in an image press Ctrl and right-click - it will tell you!

Transform...

The foreground figure was too big when it was moved, using Edit > Transform > Scale, from the Options Bar, we resized it. When Transform is activated a box is created around the image with handles on the sides and at each corner.

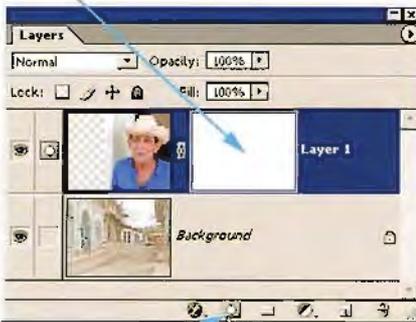
Don't panic if you are unable to see the whole box, or if parts of the image are outside the picture frame. This is a common problem, making it difficult or impossible to get hold of the control boxes; simply click anywhere over the frame around the image and the cursor will become a double-headed arrow; Dragging outwards now will increase the area around the picture making the handles accessible.

Click and hold the mouse cursor over a corner box, whilst holding down the Shift key, and pull outwards to increase the size of the transform box. This ensures that the sides move in unison, thereby retaining the shape of the original, if the whole box needs repositioning click inside the rectangle and drag it into position. Press Enter to resize the image.



Barrie Thomas' first book is readily available in hardback and paperback. An essential for every photographer who uses Photoshop.

New layer mask



Layer mask button

Add layer mask

Layer Mask

To create a Layer Mask we first selected the top layer by clicking on it and then clicked the Add layer mask icon at the base of the Layers palette. This creates a white rectangle alongside the picture on that layer, which becomes linked to it.

You may not have noticed but at the same time as the mask was formed, the colours in the two swatches at the base of the toolbox were replaced with black and white; make sure that the Foreground color is black before proceeding. This is a masking mode and colour has no relevance here.

Painted mask



Cleared area on layer mask

Masking

Painting on the layer mask with black paint using any of the painting tools, results in that area of the image alongside the mask being removed. It appears as though it is being erased but this is not the case as we shall discover.

Initially we roughly removed the outer unwanted areas around the man using a large brush. Don't take too much time here because mistakes are unimportant, the great strength of layer masking is that it can always be corrected later!

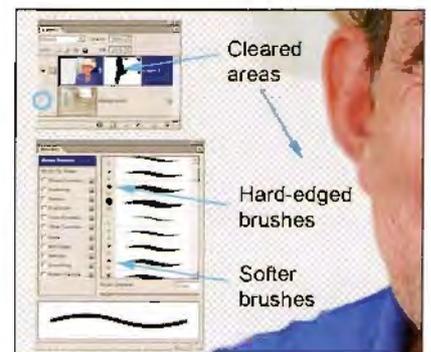
If nothing appears to be happening check that you are painting with black onto the white mask! You can only paint onto a mask if the mask icon is showing alongside the layer; if a paintbrush is in that position, you are working on the layer photo and not the mask. Click on the layer mask to reactivate it if necessary.

Moving in

Use the Zoom tool (Z) to magnify your image so that the edges are clearly visible and then reduce the size of the paintbrush progressively as you move in towards the edge.

Choose either a hard or soft-edged brush where appropriate; we painted the shirt edge with a hard brush but chose a softer one for the less regular edges of the face. Switching off the lower layer, by clicking on the eye icon to the left of the image on that layer, allowed us to easily see which areas had been cleared.

If you make a mistake and inadvertently paint an area that you did not want to be transparent, simply paint over it again... but this time with white as the foreground colour. This has the magical effect of restoring the original image and is therefore a failsafe device. Painting with grey results in partial transparency.



Brush changes are made in the brush palette, which can be accessed from the Option bar, or using its own palette from the Window menu. Softer brushes have a more blurred appearance.



Siblings by Barrie Thomas FRPS. This image formed part of Barrie's digital Fellowship panel.



False layer
New layer button



False coloured temporary layer added for clarity

False layer

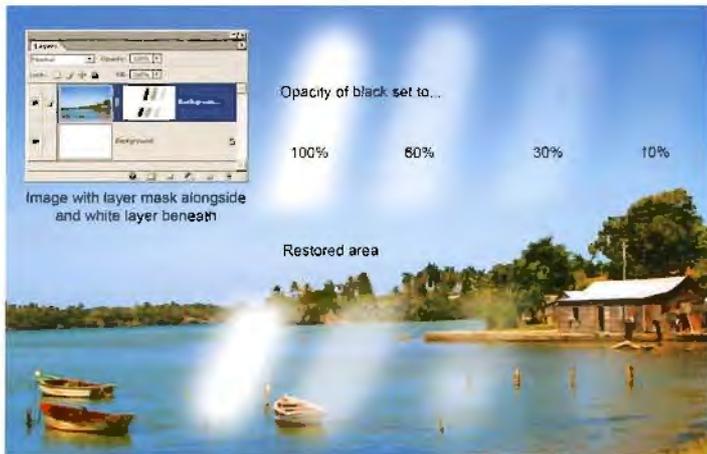
You may find that even with the lower layer switched off it is still difficult to see the edge clearly; the solution here is to position a temporary layer immediately beneath the foreground layer and then flood it with a strongly contrasting colour

To create the temporary layer Click the New layer button at the base of the layers palette and select a bright foreground colour in the toolbox. Use Edit> Fill> Foreground colour (Shift + F5) to fill the layer. If the new layer is in the wrong position click on it in the layers palette and drag it into the right place.

To finish simply drag the false layer to the bin icon in the palette and discard it before choosing Layer> Flatten Image.



Cane Cutters by Pam Thomas LRPS which was shown in the 2005 members' exhibition.



Brush opacity determines how much of the layer beneath is revealed. Painting with black shows it all but as lighter shades of grey are used, less of the lower layers are exposed. Painting with white restores the original image entirely.

Problems

The process here is not a difficult one, but problems can occur. If they do check the following...

- | | | |
|---------------------------|---------------------------------------|-----------------------------|
| Is the image active? | Do you have a selection in place? | Are you on the right layer? |
| Is the layer mask active? | Are you painting with black on white? | Is the brush opacity OK? |
| | Is the layer opacity OK? | |



Man and Woman by Barrie Thomas FRPS which was shown in the 2005 members' exhibition.

Dealing with hair

A perennial problem for photographers working digitally is how to deal with soft edges and semi-transparent materials; selecting hair is perhaps one of the most difficult cases.



The unretouched edge between the new background and the existing hair looks ragged and untidy but after treatment using the Smudge and Blur tools the natural look of the hair is restored.

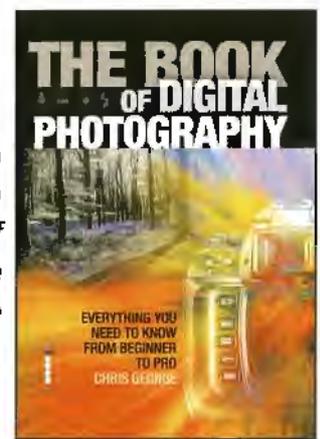
As we know painting with grey on the layer mask partially removes the pixels on that layer, varying the density of the grey therefore will allow more or less of the background to show through at any given point. This is the best way to deal with transparency problems but it is very hard to achieve using a mouse. A far better approach is to use a graphics tablet where the density of the stroke made - and therefore the amount of that layer erased - is controlled by the pressure applied to the stylus; you simply press harder where you want a lot of the background to show through and less hard when you do not.

A clever 'dodge' for replacing hair inadvertently removed is to use the Smudge tool. With the brush set to a small size, probably only a pixel or two, simulated hair can be subtly created by drawing fine strokes away from the head in the same direction as the hair. Set the Strength figure on the Option bar to around 90 to 95 since this determines how far the stroke will pull the colour before it disappears.

This can look very natural and effective after a little practice, a final gentle blurring of the edge disguises any remaining join.

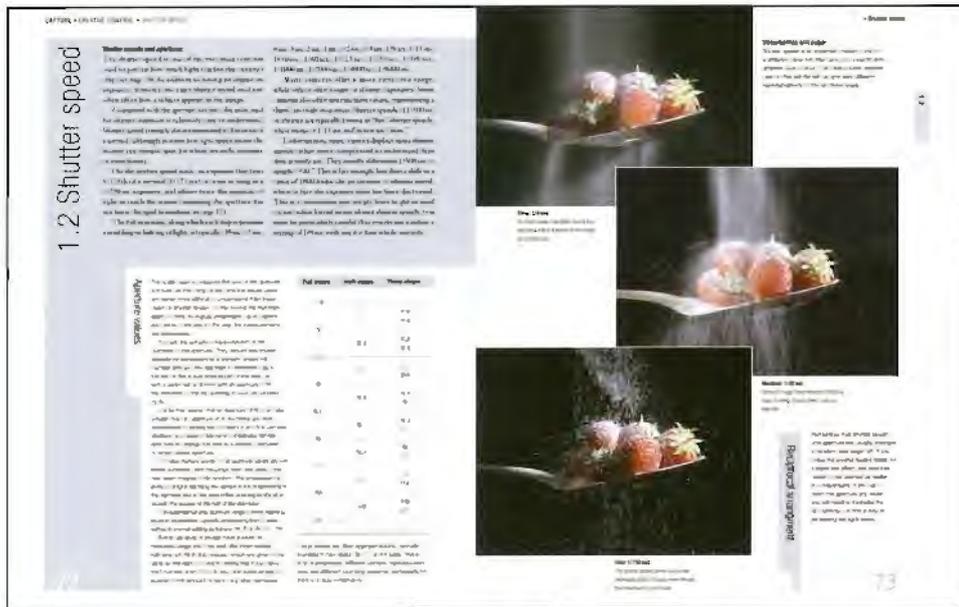
In conjunction with the competition announced on page 10, we take a look at ILEX Press' latest launch, a major new book by Chris George - The Book of Digital Photography.

If you cannot wait to win your copy, order on line at: www.ilex-press.com where you get 20% off any ILEX cover price. But DIGIT members do even better by using the discount code DIG773RPS24ilex which takes off another 10%. That means that the £20 Book of Digital Photography will be £14.40 for the DI Group. Just click on 'buy' for any book and add the code into the box provided when checking out to get the extra 10% discount.



Combining both the elements of photography and digital imaging in one volume is indeed an ambitious project. But when a former deputy editor of Amateur Photographer and editor of What Camera, Chris George, sets out to achieve this for Ilex books it is well worth having a careful look. Does he succeed? I think so, admirably.

reminders on cataloguing images, backing up and data recovery when (not if!) crashes happen. You will never be able to reshoot that brilliant, intimate moment from your friend's wedding day!



The book is undoubtedly densely packed with lots of information on each of its well set out 320 pages - no lightweight this book, so you get lots for your money. ILEX have produced much more than the large print step-by-step 'How To' guides: indeed this book is less about manipulation to create specific effects itself but more concentrates on giving the reader a deeper understanding of both the hardware and the computer programs which digital photographers will use to create images of quality. As a result, it does repay close and repeated study and is better used as a combination of an encyclopedia (the index and cross referencing are generally good and helpful) and a single volume of structured development through the possibilities of photography today for the creative worker.

With so many younger people now first coming to photography with a digital camera it is surely timely to restate the basic principles and practice for those who may never have used film, worried over manually set exposure, or negative density, but to do this within the context of the latest breed of sophisticated compact and SLR digital cameras and the amazing software available.

And yes, I am keeping the review copy on my shelf ready for reference so you'll have to get your own!

So, the first third of this big book covers the kit itself - sensors, metering, white balance, file formats, and how to use the camera controls for creative effect. Composition and lighting come next - a useful reminder even for those who feel composition instinctively - and how to treat a range of subjects from monochrome to sports photography. Having dealt with scanners and the dreaded dust and dirt, we are in to part two and manipulation. Here we find a good, sound basis for setting up your 'lightroom' on the computer and all the main tools covered for the novice and more advanced worker.

Helpfully, in the third part, we also have practical advice on printing, inks and paper, with some brief stuff on the digital slide shows which are increasingly popular - see page 10 for the new distinction available for you from the Society. And some pertinent



Paul Carr LRPS, a folio contributor, lives in Cornwall and his images can be seen at: paulcarr-photography.co.uk. Paul was keen to record his grateful appreciation of all the help he received in his build-up to the Panel assessment for the Licentiate.

I have been through some very bad times these last few years, with a breakdown and associated problems of depression. I have had a love of photography all my life and I decided to take it up again. Through the wonderful world of the digital age I have regained my sanity - although at times I have wanted (like many) to hurl the computer through the window!

The goal of a certification for the L was put off so many times, being so nervous, yet wanting to enter. It turned out to be unnecessary stress. The day proved most calm, the greetings from one and all, the attitude from both judges and judged was so happy. If you have any doubts about going for 'it' then rethink entirely: the actual day is not anything like you imagine. You'll enjoy the proceedings and if successful you'll have achieved the right to have letters after your name. For many this may be the main reason but what it says for me is that your work is judged by your peers good enough at that level of attainment.

After much consultation and advice I put my Panel together and blew caution to the wind. I had expected a day completely opposite to what I experienced. Welcomed by John Long ARPS, and Barry Senior FRPS, Carole Agar from the Society and several applicants in such a positive and happy way allayed many fears. I can now understand what people were telling me about: Don't worry - You are not attending the Spanish Inquisition!

My Panel was first and I was overjoyed by the reaction of the judging members, which allowed my stomach to regurgitate the heart it had been chewing for the previous week or so.



Getting the

The thrill when that envelope lands on the mat a LRPS after your name is tremendous. Here two L they approached the



The following panels that I saw were excellent, and it occurred to me the applicants were as nervous as me, and equally relieved as they passed. I saw only half a dozen more before my wife and I left for our six hour journey home, which was joyous as you would expect.

On reflection I wish I hadn't put off the application so long. I have regained my love of photography in the new digital age.

The goal now is to move on and try for the A. Having an insight into how the RPS works to help you attain your goals, with members willingly using their skills, I will not fear the event as much. Nor should anyone, so please do not hesitate. Go for it and progress your skills to bring you joy and the knowledge that your work is deemed of the right standard.

I want to mention in particular, John Long ARPS who was of great assistance to both myself and others. My grateful thanks.

Plates on

and you don't even have to open it because it has
Group members with differing styles tell us how
Licentiate distinction.

Mags Fewkes LRPS lives on Guernsey in the Channel Islands where she is an active member in two clubs. Her images can be seen at: www.magsimages.com. Towards the end of 2005, Mags was inspired to try for her LRPS.

I was in frequent contact with friends who had achieved not only this, but gone on to attain their A and F distinctions. I have also heard many other people tell me that they don't feel the need to get a qualification: the satisfaction they get from photography is reward enough. But I suppose I wanted to get a foot on the albeit bottom rung of the RPS ladder. When I was growing up I was never one of those people who sailed through school or college at the top of the class or excelled at sports, whose family sideboard sagged with trophies. So this was for me, a special goal.

My first problem was deciding which format to choose. I felt that submitting slides would possibly be less popular, but also there is that undeniable quality and vibrance of colours in slides which I prefer. Prints would have involved selecting a mount colour to complement all my photos, which I was not so happy with.



I had made enquiries at the Distinctions Department of the RPS and found that I needed to make my application in advance of submitting the photos, as there is only a limited number of places for each session of judging.

The next problem lay in my actual Panel selection. The guidelines presented me with a conundrum: one is advised to show a broad spectrum of ability and yet paradoxically, not too diverse a subject range. I 'anxed' long and hard about this and decided on balance to show a mix of wildlife (which I love best), landscape, and people (which I feel is my weak point). I also felt I should demonstrate the ability to capture fast action, so I chose the waterfall. Many of my wildlife photos tend to be close ups, so I deliberately chose some that were not. At this point, I enlisted the help of a dear FRPS friend for independent advice - who later had no hesitation in being treated to a celebratory lunch!



It is all too easy to select a photo for submission because it's a favourite. I have files of favourites. One is inevitably blinded by seeing things only subjectively. Some photos are favourites because of where they were taken, or what they remind me of, not necessarily because they are actually a fantastic shot in their own right - which is where I needed Tony's unbiased objective viewpoint to review my final selection.

But probably one of the worst decision was the order of the panel. Tony told me how critical this is. He explained how, for example, two dark slides followed by a light one, would effectively make the light one look even lighter, simply by contrast. I found this very difficult, but eventually sorted out an order, so that the photos flowed in both a logical and aesthetically pleasing order.

At the point of posting I was still not confident that I would pass. I know some super-confident friends (male!) who have never conceived of failing, but life's not

like that. I told no-one I had applied in case I failed.

The worst part? Definitely the wait! Three weeks until the magic letter arrived, marked on the envelope LRPS. I was on a high for days and very proud.

I would unhesitatingly urge any of you considering going for it to do so. Remember: no gain without pain!



Driving the road to L

Janet Haines LRPS is another contributor to the online portfolio and joined the successful DI Group triptych day in Bath last year. One of Janet's prints has this issue's front cover, more are opposite and you can see her work at: <http://janethaines.myphotoalbum.com/>



RPS distinctions are very worthwhile, and from first joining I have considered the LRPS (Licentiate) as getting my photographic L plates. Highly desirable if one is going to get into the driving seat of photography. But, just like driving, it needed lots of work and practice to gain that coveted status.

If I tell you that I have only been doing serious photography for a little over two years, and prior to that was just an occasional happy snapper it will, hopefully, help others considering having a go, that getting an LRPS really *is* possible.

The digital revolution has been my making. I am not that interested in f-stops, apertures or bracketing, but firmly believe that my digital SLR, set on auto, knows better than I do. There are times when I make myself do 'proper' photography and branch out into f-stop territory, and I do like having a suite of different lenses to help me create my masterpieces. But Photoshop is my greatest love. This is where I can be creative, modify my RAW images till I am happy(ish) with the results. However there is no substitute for a decent composition, good light and an eye for spotting something different.

Trying to sort out in my mind what is a good image and an acceptable standard was a starting point. For months I watched the DIGIT web site and would play a game of looking at an image, commenting on it from my view point, before looking at the more experienced members' comments to ascertain if I was somewhere close. Finally came the moment when I decided to join and subsequently put up my own images for comments. Now my learning curve began properly. Members are kind but fair; their comments helpful and constructive. Now I could work on my images till I was happy with them, pop them on Digit and learn from others as to how I could improve. I saw fellow members getting their distinctions and viewing their panels put me in awe, as some were truly stunning. It did nothing to help me feel a distinction was attainable. But I worked on.

Somewhere along the line the balance tipped and my confidence grew. Others, most primarily John Long ARPS, encouraged me to go for broke – to go for that L.

Now I started in earnest. With a file labelled 'RPS possibles' I put in my best and continued to work on them, sometimes down to pixel level to overcome minor imperfections. The most likely I tested out on the Digit forum – testing the waters as it were. I learnt how to present a panel, with a balance of images and the end photos facing inwards, and the necessity for all the final chosen images to work together in some way; no odd jarring dark images, nor a mix of mono and colour. Slowly the 'possibles' became 'probables' till I had ten I was happy with. But rather like a

hairdresser it was difficult to know when to stop cutting and twiddling and get them to print.

Finally the prints were made and as I (at that time) did not have the ability to make inset mounts in house I took them along to the local framing company,

chose a pleasant creamy white mount board and let him do his job of making them look professional for me. All that was left for me to do was to back them, label them, do the accompanying panel layout sheet and pack them safely away till the selection day.

I could have gone along to a RPS advisory day where I would have been given more guidance on my proposed panel, but as I am always a person in a hurry I hadn't bothered, as that would have meant another few months before I could submit the panel. A gamble – but for me one that paid off.

So I now have my coveted L plates and am beginning to think and work towards my A. In my little mind this stands for "advanced" and therefore pretty tricky stuff. As for the Fellowship – well that is currently seen as "flippin' impossible"...but you never know if you don't try!

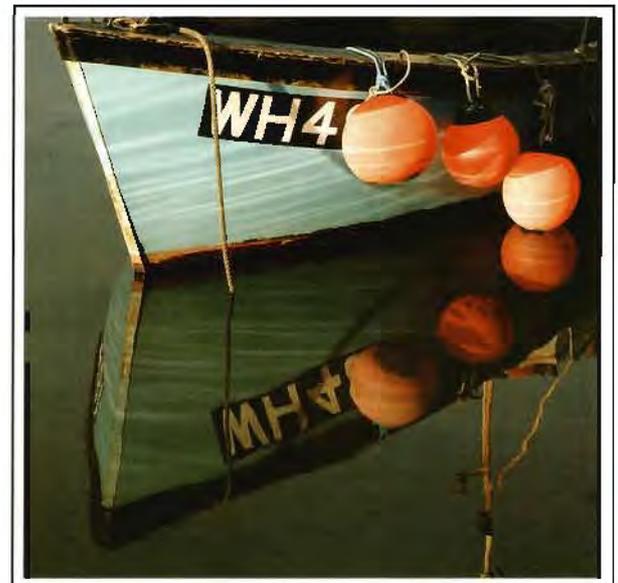
I would like to thank Associates John Long and Anthony Poole and all my fellow DIGIT members who helped, taught and encouraged me to take my L. Without them I might still just be a happy snapper.



Janet's Licentiate application showing the layout and sequencing of the prints for the Panel.



Clockwise from top: Scattered Showers; Still Waters and Stream of Life by Janet Haines LRPS



Snippets from DI Group members

Dr Leo Dosremedios ARPS from the USA writes:

- A thorough, fair, and balanced evaluation site for digital cameras and lenses popular in the US is: www.dpreview.com;
- An enormous Web site for publicising one's images is: www.flickr.com;
- For new techniques in making panoramas and remarkable High Dynamic Range images using Photoshop CS2 see: www.flickr.com/photos/sdosremedios/

Peter Gawthrop LRPS from Scotland updates us on his panoramas:

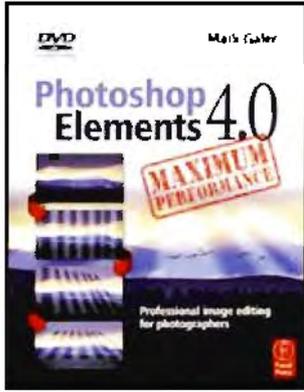
- I've now put some of this year's panoramas up on my website: <http://www.lightspacewater.net/Panoramas/PanoAlbum/2006>. Some have obvious defects but I'm slowly learning how to do this. Note that you need to click on each image to get the movie - a bit higher res than before so the download is a bit longer. I have done a brief tutorial on my spherical panoramas and posted it at: <http://www.lightspacewater.net/Tutorials/> - It is the third one down. To see the Movie on your browser you will need Java enabled;
- the Panotools wiki at <http://www.panotools.info/> is very informative.



Leo with his panorama rig on a granite boulder at the edge of a 3000' cliff into Yosemite..

Sid's Rapid Reviews

Sid Pearce FRPS gives us a quick read out on a useful book on Elements and, against the background of Phil Bink's article on page 14, how effective a simple calibration device can be.



**Photoshop Elements 4
Maximum Performance**
by Mark Galer
Focal Press ISBN
9780240520124
222pp. £18.99

This is a book of advanced professional techniques, without the cost of the full version of Photoshop. The book explains many non-destructive methods of manipulating an image with

the same end result as if using Photoshop. The methods in the book can also be followed on the enclosed DVD.

In all there are 21 projects covered, including creative montage, toning, Camera RAW, sharpening and printing. Each project is illustrated with large coloured screen grabs and gives many tips and tricks throughout each tutorial.

Elements is of course a cut down version of Photoshop without a number of tools and commands. One of those missing is curves which many professionals use. The author has come up with a number of ingenious workarounds for this and other deficiencies in Elements. The accompanying DVD takes you step by step through all the projects with the images used. Many are in Raw others are in JPEG. Included on the DVD are more than 200 royalty free high resolution images of skies, water, sand, portraits and landscapes.

If you want to cut down your learning curve on Photoshop Elements, look no further than this book.

What You See Is What You Get - Well almost!

Arguably in any imager's workflow, calibrating and profiling the monitor is the most important task. To consistently see your image at the right colour, saturation and brightness is a goal we should all be aiming for. An example of the differences in monitors can be seen in a TV showroom. Look at a row of televisions: all display the same picture but they very often have different colours and levels of brightness. And all monitors deteriorate over time; particularly CRTs. The colours change continuously even if this is not visible to the naked eye.

Since most cameras, scanners and printers have their generic colour profiles set by default on sRGB and, if you have no great interest in calibration, you could do worse than sticking to this generic profile for all your hardware. However this is not a strategy I would recommend.

If you are using Photoshop you can calibrate by eye using the Adobe Gamma in the PC's Control panel but no two people have the same eyesight. Not only this, trying to adjust the three RGB squares in Adobe Gamma so that the inner and outer frames merge, can in itself be a nightmare. Whilst this procedure is by far the lesser of many of our colour evils, it is still not the best route to follow.

The best solution by far is to use one of the electronic devices on the market such as the **Gretag Macbeth Huey**.

The Huey is a small device which plugs into a USB port. At the other end is a piece of plastic hardware 10cm tall that you place on your screen. The installed software shows a number of colours on the monitor which the Huey reads and then adjusts your screen. The options you have are warmer and cooler, along with preset adjustments for films, web browsing, graphic design, games or photography. The Huey comes with a small stand that you place at the side of your computer. It then continually monitors the ambient light in your studio and makes the necessary adjustments to your screen. This is a cost effective electronic method of preset monitor calibration for amateur photographers doing family photographs. The Huey costs £69.95 from Image Alchemy Ltd. Telephone +44 (0)161 976 6169; Email: pbanks@image-alchemy.com

The GretagMacbeth Eye-One Display 2 is an easy to use powerful monitor-calibrating package for the serious amateur/professional photographer. Gone will be the days of wondering if the colour is right on the screen when you use this piece of Swiss made kit.

Before installing I would suggest that you turn on the computer for at least 30 minutes prior to the installation of the supplied software. This is to allow the monitor to warm up stabilise and display its true colour. And make sure the screen is clean. The software installs automatically from the CD. Then plug the Eye-One Display spectrophotometer into a spare USB port on your computer.

For convenience the software will place an icon on the Desktop. Clicking on the icon will bring up the

Eye-One interface. To start profiling, gently place the spectrophotometer on your screen. You are then asked to select the device you wish to profile. There is both an easy (wizard) and an advanced method of profiling. I would suggest that initially you use the easy way



until you get used to it. Selecting the type of monitor to profile - LCD, CRT or Laptop - you click on a right facing arrow to continue. There is a good help file if needed and clear instructions on the right side of the screen talking you through the whole process. It is at this point you will notice a change on your monitor screen. Whatever your current profile is (good or bad) it will be deleted from your system. Your screen goes blank for a few moments and then a series of monochrome and coloured squares appear. A progress slider at top right of your screen gives an idea of time left. When finished, you will be reminded to save the profile. The program automatically saves it to the correct file on your machine and asks when to remind you to re-profile - one, two, three or four weeks. I suggest 4 weeks for amateurs and weekly for professionals.

Whilst I have described a GretagMacbeth profiler, using almost any electronic profiling hardware will make the images on your screen appear as near to the original as your monitor screen will allow.

DIGITAL FACTOIDS - Digital terminology and related jargon in 'byte' sized chunks!

ARTIFACTS

Artifact - Any visible degradation of the details of a digital image caused by the methods used to capture, store or compress the image. A common form of artefact occurs during 'lossy' compression when bogus details appear near the edges of objects.

Banding - An artifact that spoils the appearance of an image's subtle graduations of colour and tone. Bands or blocks of solid colour appear in place of graduations.

COMPRESSION

Compression - A software process in which image data is 'squeezed' to reduce the size of the image file. Compression methods can be 'lossless' or 'lossy'.

'Lossless' compression - A file compression technology that reduces the size of files in ways that result in the original file being intact after decompression. There is

no loss of the original data. TIFF compression is lossless.

'Lossy' Compression - A file compression technology that reduces the size of files in ways that result in permanent changes to the original files after decompression. Depending on the degree of compression used the image may exhibit noticeable artifacts. JPEG compression is 'lossy'.

FILE FORMATS

TIFF - Tagged Image File Format - A file format for bitmap images that is readable by all major imaging software programmes. TIFF allows moderate amounts of lossless compression.

JPEG - Joint Photographic Experts Group - A software procedure that compresses files. JPEG is a 'lossy' compression that degrades image quality. The apparent effect is small unless the image is highly compressed.



Good Picture - 2006
Management and Manipulation
An RPS Symposium

Following the success of the previous three **Good Picture Symposia**, the **Imaging Science Group** of the **Royal Photographic Society** is organising another in its series of tutorial seminars, open to all, on selected technical aspects of **Digital Imaging**. The aim of these lectures is to provide imaging practitioners, keen amateurs and students with insights into Digital Imaging and hopefully provide some tools and guidelines for assessing cameras and output.

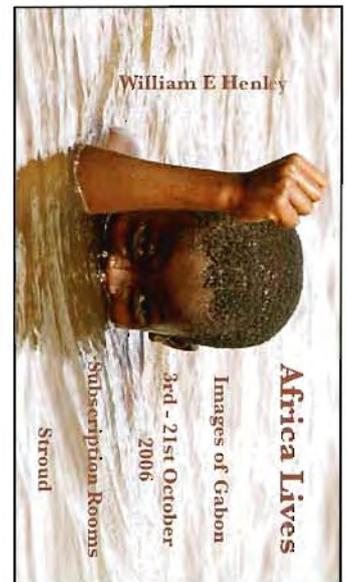
Location: University of Westminster, Regent Street, London
Date: Tuesday 19th December 2006, 10am – 4pm

Charges: £50.00 Concessions: £28.00 (Students, Retired, Unemployed)
Includes buffet lunch plus morning and afternoon coffee & biscuits
(Note: There is full disabled access to this meeting)

Contact: Dr. Mike Christianson: 01753 890 480
Application form and address: www.rps-isg.org

Programme

<p>Prof. Francis Ring <i>University of Glamorgan</i></p> <p>An insight into Medical Infrared thermal imaging development post WW2. Modern focal plane array IR cameras have replaced microbolometer scanning technology, with improved image quality, speed and resolution, but high quality images are still technique dependent, especially for accurate temperature measurement.</p> <p>Dr. Alan Hodgson <i>Independent Consultant</i></p> <p>As more images are stored digitally the issue of the permanence of these files needs to be considered. This presentation will cover the questions you need to ask and offer some solutions to these.</p> <p>Dr. Nicky Athanassopoulou <i>Cambridge Display Technology</i></p> <p>Imagine a world where displays are paper-thin and feather-light with sharp, vivid images that can change faster than the blink of an eye. A world in which these displays are integrated into products from large foil TVs to textiles and even books. This is the world of Cambridge Display Technology which is pioneering polymer OLED displays capable of being produced by inkjet printing.</p> <p>Dr. Tony Kaye <i>Kodak Ltd.</i></p> <p>The retail price of 'consumer' cameras continues to drop rapidly and often these cameras will offer the user a choice of file formats and colour spaces. Thus print makers (mini-labs, on-line services etc.) will face a growing challenge to deliver high quality prints. The presentation will review the way colour management has been implemented in a few cameras and their 'bundled' software. The results of a 2005 trade survey will be shared which shows that many print makers were 'blind' to the colour space information embedded in image files. Additionally, even when print makers are colour aware, we will show that poor results may still be achieved because of the less than rigorous approach to colour management adopted by camera manufacturers.</p> <p>Prof. Robert Hunt <i>Colour Consultant</i></p> <p>Electronic displays have many virtues, but their shortcomings include: lack of consistency amongst devices, limited colour gamut, and impairment by the presence of ambient light. How some of these shortcomings may be met in some devices being developed for the future will be discussed.</p> <p>Elizabeth Allen <i>Westminster University</i></p> <p>The route through the digital imaging chain involves a number of image processing operations, both built-in and user-applied. Designed to optimise, manipulate and enhance colour, tone, reproduction and image quality, there are often a variety of different tools to achieve a required result. This presentation covers some of the fundamental principles behind operations such as histogram processing, gamma correction, curves adjustments, sharpening and noise removal techniques. How, why and where they are applied, and characteristic artefacts caused by excessive application will also be explained.</p> <p>Dr. Graeme Awcock <i>University of Brighton</i></p> <p>Do you know your CCD's from your CMOS? Your octagonal resellations from your orthogonal? Your full-frame architecture from your interline transfer? This talk aims to shed some light on the critical technology that is used to deliver all those lovely megapixels.</p>	<p>Imaging Heat – New Technology, Old Technique</p> <p>Where Could All My files Go?</p> <p>The World of Polymer Displays</p> <p>Prosumer DSC's Colour Management Issue and the Challenge for Print Makers</p> <p>Electronic Displays: Present Performance and Future Possibilities</p> <p>Image Processing from Capture to Output</p> <p>Phantastic Photosites</p>
---	--



- WORDSEARCH - REALLY STUCK?**
1. LOSSY
 2. DITHERING
 3. RESOLUTION
 4. INKJET
 5. PHOTOSHOP
 6. TIFF
 7. COMPRESSION
 8. MEGAPIXEL
 9. LAYERS
 10. LASSO
 11. DIGIT
 12. CONTRAST
 13. IMAGE
 14. LRPS
 15. FILTER



Tony Healy ARPS and Steve Ridgway LRPS explain the digital update for a traditional technique - The Harris Shutter



Back in 1970 Bob Harris, an editorial writer with Eastman Kodak, proposed a technique in their publication *The 7th Here's How* for making three exposures on one frame of film through a

red, green and blue filter.

The result showed stationary objects as normal but those parts of the subject that moved during the exposure were the colour of the filter in front of the lens at that time. This technique was not available to those cameras that did not allow re-cocking of the shutter without advancing the film. Bob Harris addressed this problem and produced a home made device that quickly passed the three filters in front of the lens while the shutter speed was set on a long exposure. This device became known as the Harris Shutter:

www.harrisphotos.com/HarrisBio.html and

shutterbug.com/refreshercourse/lens_tips/101/index3.html will give you further background.

Initially the subject was running water as this was easy to

demonstrate the technique. However as people became more creative other subjects and approaches were made to the technique. Some of these variations can be seen in *About Flow* on the website of Brad Carlile at: www.bradcarlile.com/portfolio/portfolio-about-flow.html. With the advent of digital cameras and Adobe Photoshop, utilising this technique became much easier as the photographer can make use of the red, green and blue channels from three separate images.

The Technique

The straightforward approach is to put the camera on a firm tripod and shoot three consecutive images which we'll call 1, 2, and 3. The red channel of 1, the green channel of 2 and the blue channel of 3 are merged into a new file using Adobe Photoshop Channel operations. Before using this method it is important to ensure that all the images have the correct properties, namely the same pixel dimensions and containing just a single layer (ie flattened). They should also be RGB Colour images and in any format supported by Adobe Photoshop, such as tiff, jpeg, psd, etc.

The Steps

1. Use File>Open to open the first image, the one which will form the Red channel of the final image.

2. From the Channels drop down menu select the Split Channels option. This will create three new grayscale images as shown here. The title bars of the new windows show the original filename plus the channel abbreviation (Windows) or full name (Mac OS).



3. Close the new grayscale images for the Green (G) and Blue (B) channels, without saving them. Leave the grayscale image for the Red (R) image open.

4. Use File>Open to open the second image, the one which will be used for the Green channel of the final image.

5. From the Channels drop down menu select the Split Channels option.

6. Close the grayscale images for the latest Red (R) and Blue (B) channels, without saving them. Leave the grayscale image for the latest Green (G) image open.

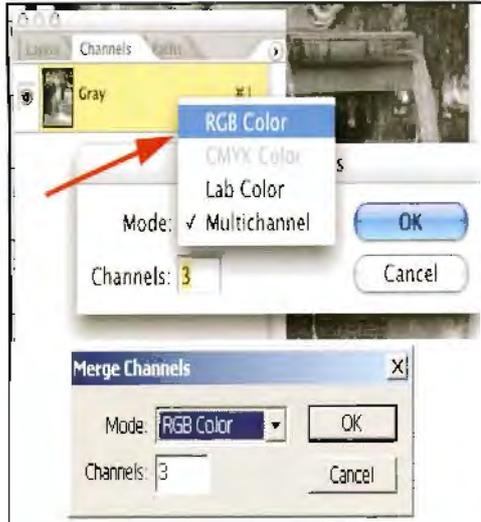


7. Use File>Open to open the third image, the one which will be used for the Blue channel of the final image.

8. From the Channels drop down menu select the Split Channels option.

9. Close the grayscale images for the latest Red (R) and Green (G) channels, without saving them. Leave the grayscale image for the latest Blue (B) image open.

10. At this point there should be three grayscale image windows open – the Red channel from the first image, the Green channel from the second image, and the Blue channel from the third image. From the Channels drop down menu select the Merge Channels option. A dialog box will pop up. The Mode should be set to RGB Colour, and the Number of Channels set to 3 as shown here.

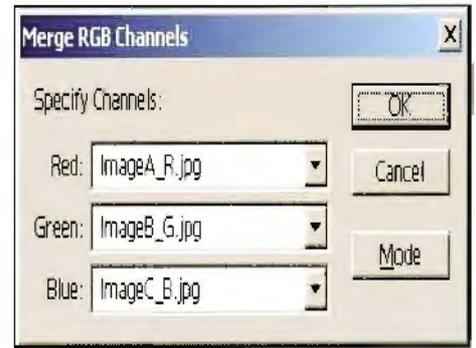


Click the OK button. You will then be prompted to select the channels to merge as seen opposite. By default the three open windows should fill the available options, so you just need to click the OK button. That completes the process.

11. Save the final combined RGB Colour image.

Easier

Steve has created an Action to do all the above for you (or you can create one yourself in Adobe Photoshop). Should Murphy's Law eventuate and you note that one channel is not aligned properly with the others, click on the combined channel icon first so that all channels' eyes are active, then select the problem channel in the Channels Palette and use the Move Tool to align the channel with the other two.



Anyone wishing to obtain a copy of Steve's Action file contact Tony at: tonyhealy@optusnet.com.au and he will forward it to you.



Below: Rain Drops by Steve Ridgway LRPS
Opposite page: Aqua Viva 2 by Tony Healy ARPS



KEY CONTACTS DIGITAL IMAGING GROUP

Chair: Clive Haynes FRPS
01905 356405
chairman@digit.org.uk

Secretary: Glenys Taylor ARPS
01823 282516 or 01823 323986
secretary@digit.org.uk

Treasurer: Peter Roberts ARPS
01926 420105
treasurer@digit.org.uk

Webmaster: Bill Henley LRPS
01453 825068
wehenley@mac.com

Publicity and Website Updates:
John Long ARPS
01179 672231
webquery@digit.org.uk

Exhibitions: Alex Dufty LRPS
01454 778485
exhibition@digit.org.uk

Dr Barry Senior FRPS
01425 471489
barry@littlepics.freemove.co.uk

Graham Whistler FRPS
01329-847944
graham@gwpmultimedia.com

Maureen Albright ARPS
01672 540754
maureen@maureenalbright.com

Tony Healy ARPS
+61 (0) 29958 1570
tonyhealy@optusnet.com.au

Carole Hewer ARPS
01793 771643
catswhiskerspics@btinternet.com

Vice-Chair and DIGIT
Jim Buckley LRPS
01932 843893
editor@digit.org.uk

DIGITAL REGIONAL ORGANISERS

Members wishing to attend regional digital imaging meetings should contact the organisers listed below for full details

Eiger (East Anglia)
Joy Hancock FRPS
joyandmike@woodview24.freemove.co.uk

Midlands
Clive Haynes FRPS
www.midig.org
clive@crhfoto.co.uk

Central Southern
Moiria Taylor LRPS
no1greenside@onetel.com

Wessex
Maureen Albright ARPS
www.wessex-dig.org.uk
maureen@maureenalbright.com

Scotland
Alistair Knox LRPS
akphoto@btinternet.com

East Midlands
Bob Rowe ARPS
www.rpsdigital-em.org.uk
bob.rowe10@ntlworld.com

Western
Glenys Taylor ARPS
glenys.taylor@tiscali.co.uk

Southern
Barry Senior FRPS
barry@littlepics.freemove.co.uk

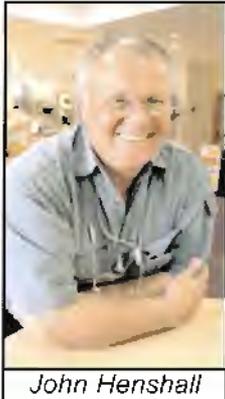
South Wales
Maureen Albright ARPS
www.southwales-dig.rps.org
maureen@maureenalbright.com

And finally, when will you send us an article for DIGIT? Remember that everyone is learning and all experience is valuable. We look forward to hearing from you.

Email to editor@digit.org.uk. Thank you.

Jim Buckley LRPS Editor

DIGITAL IMAGING GROUP



John Henshall

DIGITAL DAY

Sunday 29 October 2006, Rugby

The Royal Photographic Society's Digital Imaging Group has signed up leading UK imaging expert John Henshall FRPS FBIPP to lead the Digital Day event in Rugby town centre on Sunday 29 October. This major event features many new and exciting products and developments - some seen for the first time in the UK, fresh from Photokina. Cutting edge digital technology is set to be unveiled at this D-DAY autumn conference.

'This is a major coup for the DI Group' says Clive Haynes, RPS DI Group chairman. 'D-Day Rugby will mark a new watershed in the progression of digital photography for both professionals and amateur enthusiasts'. John is in discussion with key manufacturers including Canon, Nikon and

HP to showcase their latest state of the art products, hot from the Photokina trade show in Cologne. After a decade of digital imaging we are now seeing its true coming of age with substantial improvements in camera design, software and printing technology.'

Special features in the day will include: How to make money from your photos; Speed Fixes for common problems in Photoshop; and a Gallery of DI Group members' prints with prizes - so Group members please bring a mounted print (up to 40 x 50 cms) for immediate exhibition.

'For less than the cost of a lens cleaning cloth you will see the latest innovations in the digital arena and access vital information about how to increase your efficiency and bottom line profitability' promises imaging guru John Henshall. Tickets at £8.50 are priced to attract a wide participation, with discounts for RPS DI Group members.

John will demonstrate Fast and Furious Photoshop techniques and provide delegates with simple but vital guidelines on how to make serious money from stock photography. This will be an absolutely down-to-earth How To lesson on preparing and sizing images correctly for submission to online picture libraries. And hot tips on saving time and money, with explanations of what image resolution really means; what needs to be done regarding exposure and compression - and crucial information on how to get rid of dust. This programme will be a step-by-step guide on how to avoid pitfalls which can lead to image rejection by libraries. Alan Capel, Head of Content at leading online stock library Alamy, will be at D-DAY Rugby to outline the company's policy on image submission.

For the latest updated news in coming weeks visit www.ChipShopOnline.com and www.digit.org.uk.

RPS DI Group The Digital Imaging Group formed only ten years ago is the biggest of the RPS special interest groups. Group members' interests cover computer manipulation of images; digital cameras, scanners; printing in black and white and colour; and software. This is the major annual event for the Group, which also holds regional workshops, an annual exhibition, publishes its quarterly magazine *DIGIT* and hosts a lively website with a folio for photographs and comments with competitions and an expert forum.

John Henshall FRPS FBIPP FBPPA is an industry guru and technical feature writer. He is a pioneer electronic and digital photographer who started as a television cameraman at the BBC Television Centre in London in 1961. He was Director of Photography of many of the early music videos for artists such as Paul McCartney, Kate Bush, Blondie, David Bowie and Elton John. John was Director of Photography for MTV for ten years, and for many major UK network productions, including the legendary Spitting Image. More about John overleaf.

See over to book now to ensure you don't miss this inspiring introduction to the next decade of digital imaging.

Sunday 29 October 2006 The Benn Hall Rugby CV21 2LB Map on reverse.

Central with easy road and rail travel Good wheelchair access Free Parking Bar

Get booking form online and get right up-to-date - Log on to www.digit.org.uk for News, Information, Folio, Forum, Competition and much more

More about John Henshall FRPS FBIPP When electronic imaging began to show signs of moving to still photography he was ideally placed to advocate its advantages to photographers. He recalls that, when serving on RPS Council twenty years ago, he took along one of the new electronic cameras, together with a printer, to demonstrate to Council members how the future of photography would one day be filmless. Ten years ago, he was one of the small group of RPS members which met at the Soroptimists Club in Bayswater Road, London, to found the RPS Digital Imaging Group. He is currently Chairman of the RPS Film and Video Distinctions Panel and also serves on the Applied & Professional Panel.

Over the past twenty years John has lectured worldwide on digital imaging, including organising and running the Digital Imaging events for the Seybold publishing conferences in San Francisco, Boston, New York and Sydney. In 1991 he was elected President of the British Institute of Professional Photography and started writing what has become the longest-running monthly column devoted to digital imaging, John Henshall's Chip Shop in The Photographer magazine. This is now available worldwide at www.ChipShopOnline.com.

PROGRAMME

1000 Complimentary Coffee and registration

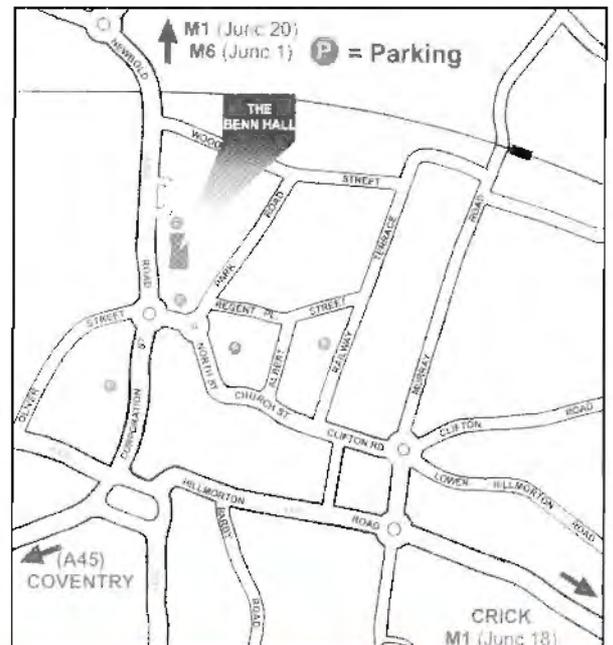
1030 Innovations for the Digital Imaging Future *Just three weeks after Photokina, the world's biggest photo-trade fair, John Henshall and colleagues will introduce exciting new equipment to enhance and expand our digital imaging experience. A big opportunity to see and hear about these new products for the first time in the UK. Considering buying equipment? Don't miss this session.*

1230 Lunch Break Snacks available or bring your own and chat to the experts. Sessions from leading manufacturers and suppliers.

1430 Photoshop Fast and Furious *Real world Photoshop for preparing lots of images at a time. John will share valuable hints and tips on how to make your images earn money at online picture libraries. This could revolutionise - and pay for - your digital photography.*

1615 Print Competition Results and prizes
Draw for raffle - winners MUST be present for the raffle

1645 Close



Reserve your place now by returning the cut-off slip below to: John Long ARPS
3 The Reddings, Kingswood, BRISTOL, BS15 4SB
Tel : 0117 9672231 e-mail: webquery@digit.org.uk
or download the booking form at www.digit.org.uk

TICKET APPLICATION: Please include SAE for return of tickets

I enclose a cheque payable to The RPS Digital Imaging Group totalling £ _____ for

seats @ £8.50 each

seats for RPS DI Group members @ £5 each

For DI Group members: I will bring a mounted print. (max 40x50 cms): **YES/NO** Delete appropriately

Telephone Number _____ Email address: _____

NAME & ADDRESS for ticket and badges:

Post Code:

