

DIGIT

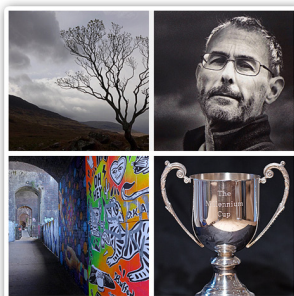
THE MAGAZINE OF THE ROYAL PHOTOGRAPHIC SOCIETY DIGITAL IMAGING GROUP

Number 82 2019 Issue 3



Upcoming DIG events

Details of all DIG events are available on the Group's website at www.rps.org/special-interest-groups/digital-imaging/events



THAMES VALLEY CENTRE

Iain McGowan FRPS
YET MORE FROM THE GARDEN SHED! & Millennium Cup Print Competition

Sunday 20 October 2019 ~ Wokingham, Berkshire



YORKSHIRE & NE CENTRE

Tony & Eva Worobiec
"Land and seascapes: themes and projects"

Saturday 26 October 2019 - Clements Hall, York



SOUTHERN CENTRE

Ann McDonald ARPS, EFIAP/s
A Little of Everything

Sunday 3 November 2019 - Ringwood, BH24 1DW



THAMES VALLEY CENTRE

Hugh Milsom FRPS MFIAP EFIAP/D1 & **Pat Broad** ARPS EFIAP/B
THE CREATIVE LANDSCAPE
Peter Milsom EFIAP/G BPE3*
THE POWER OF SPORT

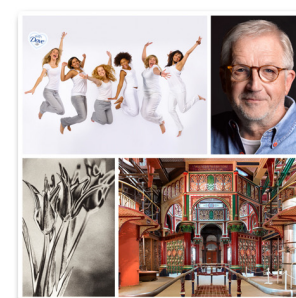
Sunday 17 November 2019 ~ Wokingham, Berkshire



WESTERN CENTRE

Anne Sutcliffe FRPS EFIAP
 Anne will be presenting her "Vision of Photography in Prints"

Sunday 1 December 2019 - Ilton Village Hall, TA9 9HG



THAMES VALLEY CENTRE

Peter Dazeley BEM FRPS
UNSEEN LONDON, PLATINUM PRINTING & ADVERTISING PHOTOGRAPHY

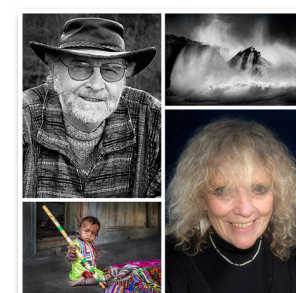
Sunday 19 January 2020 ~ Wokingham, Berkshire



THAMES VALLEY CENTRE

Tony Harmer
MAKING IT ... on mobile ... in Photoshop ... move!

Sunday 16 February 2020 ~ Wokingham, Berkshire



THAMES VALLEY CENTRE

Colin Westgate FRPS MFIAP MPAGB APAGB
THE EXPRESSIVE LANDSCAPE
Chrissie Westgate FRPS
MIXED BLESSINGS

Sunday 22 March 2020 ~ Wokingham, Berkshire

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Cover image: Dawn at the Thames Barrage by
Ken Wilkie LRPS

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From the chair

Janet Haines ARPS



A recent RPS Journal article by our outgoing President, Robert Albright, triggered me to reflect on the RPS as a society and also to question if and how DIG was aligned (or not) with the higher purpose of the RPS.

The Journal article questions if our actions demonstrate how we use photography for the public benefit. I think we are but surely the word 'public' does not just mean individuals who do not belong to the RPS - it includes us, the members; we are the public too. When we engage in photography we are consciously producing records and interpretations of the way we live today for the history books of tomorrow, or perhaps tranquil images of nature or landscape that can soothe the soul and bring us closer to an understanding of the beauty and fragility of natural world we live in, or even offering up inspiring, challenging pieces of art that make a social statement. Whatever we choose to do as photographers, it has value and therefore, in one way or another, meets the public benefit remit as both we, the members, and others view and consider our work. In other words, delivering 'public benefit' means much more than striving to be seen as charitable. Nor does supplying public benefit require us all to be Ansel Adams or Martin Parr. We each contribute in our own unique, valuable way.

I agree with Robert that we have to 'take photography into the community for social and educational benefit as obliged by our royal charter'. I believe that DIG meets this obligation extremely well. Our DIG Centres run some 30+ meetings each year to which we get around 1500 attendees, all of whom can be considered to be members of the 'public'. All DIG meetings are open to non-RPS folks, and on average some 30% of attendees are not Society members - this is surely as tangible an example of taking photography into the community as you could wish. These meetings are hugely diverse both in style - workshops, courses and practical demonstrations, as well as lectures - and in their content, aiming to inspire, enable and educate. Our quarterly magazine DIGIT also meets this obligation head on. Its articles inform, illustrate, teach new skills and generally encourage learning for the benefit of DIG members, and by making copies of DIGIT available at Centre meetings for the wider public. Not to mention our philosophy of running Centre meetings at breakeven cost so we can offer amazing ticket prices, thus making our meetings more accessible. This is only possible because our volunteers give so readily and willingly of their time and skills for the public good.

Making comparisons and analogies (with a global camera club) can result in inaccurate opinions being formed which could be insulting and simply wrong as it implies the RPS is better and more virtuous than mere camera clubs. Camera clubs are a key part of the wider photographic community and they should be celebrated and encouraged. They too are 'the public', to be embraced as part of the programme offered by the Royal Photographic Society. Indeed, it is frequently the more ambitious clubs and club members aspiring to progress their photographic ability who look to the RPS Distinctions programme as a unique way to develop their skills. The clubs do much more than serve their own members. Many of them are widely engaged with their local communities. Most camera clubs actually value the standards set by the RPS, rather than seeing us as just a 'global camera club'. Most understand and appreciate that the RPS helps them and their members gain a wider and deeper appreciation of photography.

The RPS does not have to make a mutually exclusive choice about what to put at the top of our agenda: to be a worthy, self-promoting charity, or just serve the members. It's not one or the other. We already do undertake charitable work such as the work with 'Action for Children'. We can and should do more of this kind of work, but we need members and volunteers to turn the publicised virtuous intentions into reality.

For me every member of the Society is valued, not just for the subscription income that enables the Society deliver everything it does, but also for what they as individuals add to the photographic community at large and for the public. We have an astonishing richness of talent, capability and loyalty amongst our thousands of members - in the interests of sustaining and developing the Society into the future, our RPS leaders would do well to remember that. Each of our members and volunteers should give ourselves a pat on the back for the contributions we make on behalf of the Society to the public benefit, no matter where in the world we may live.



Essence of Elterwater March 2009 Canon 5D 0.3 sec f/22 ISO 50

Intentional Mobile Movement



ROBERT FRIEL ARPS takes a journey into photography with a mobile phone.

What do you find the biggest challenge with your photography? Finding fresh inspiration?

My challenge is to create something which is not purely representative, something which evokes my own feelings towards the subject or an emotional response to the place. I have come to realise that this is why I have always engaged with monochrome imagery. The act of removing colour and the choice of treatments is very much a deliberate manipulation to evoke an emotional response and it's why I have come to increasingly relate to more intimate and more abstract imagery.

Intentional movement

I had used Intentional Camera Movement (ICM) for some time, but only really occasionally until I started using my mobile phone. The image *Essence of Elterwater* (above) was one of my first, using a DSLR in this case. It simplified the cold, wet but peaceful scene in front of me into a series of strokes of tone. It might be too simple for some, but it evokes my feelings rather than being a lacklustre picture of a place. This type of imagery was almost certainly inspired by work such as William Neill's *Impressions of Light* images.

INTENTIONAL MOBILE MOVEMENT



Nr. Allonby June 2014 Canon 5D Mark 3 1/30 sec f/22 ISO 50

Over time I became aware of the ICM and multiple exposure work being created, using cameras like the Canon 5D Mark 3, to add texture and detail to ICM images the act of moving the camera can remove.

Going mobile

By 2014 I had moved to Buckinghamshire and changed my commute to one through the Chiltern Hills into London. This route has some lovely vistas and I soon got frustrated that with a busy work schedule, the wonderful spring and autumn light was always seen through a train window.

Taking 'proper' photographs through the dirty windows of a commuter train was not really an option so I started experimenting with what I could do with my mobile phone (an iPhone 5s at the time). I thought it might be fun to see what I could create. The idea was to either daily (or at least very regularly) post something on Instagram that reflected the mood of the day (or my mood!).

In 2018 I submitted a panel of 15 of my train window landscapes for my ARPS (Fine Art). Only later did I find out that it was only the second mobile phone panel that had been successful.

I use mobile photography apps very differently to how I use a DSLR or other 'proper' camera. I use it as an image creating device, very much more like a sketchbook, by using the touch interface of the smartphone screen to create something I find inspiring. I find it much less formal and far more instantaneous than working with a bigger camera. I'm certain I haven't explored all the controls and settings of the apps I use, but I'm more interested in what I can quickly and readily create.

A bit of research brought me to two main apps which I use to create on the phone, *Slow Shutter Cam* and *Snapseed* as an editor. I occasionally use *ImageBlender* to do multiple exposure work as it has good blending modes, but much of the multiple exposure look of my more recent images comes from the *Slow Shutter Cam* app.



Train Window Landscapes

INTENTIONAL MOBILE MOVEMENT



From top-left, clockwise - London Bridge in the rain, London lunchtime - with sideways movement, London lunchtime - walking into the frame, Heading to the office.

INTENTIONAL MOBILE MOVEMENT



Slow Shutter Cam blur control – the white dot on the slider show the fully burred (dot in middle), the two sharp images (dot either end) and a blended image with more sharpness (white dot off centre)

Slow Shutter Cam

This app tries to recreate the effect of longer shutter speeds, either for blur or to mimic high ISO, by blending more than one image. You can control the time over which images are captured and the extent of the blending. This latter tool gives you a different approach to image capture from any traditional digital camera I've found to date. It has become quite a source of creativity for me.

This tool can add back some of the detail lost in the blurring process, with a degree of control. It can also be used to create a ghosting, multiple exposure look.

Snapseed

Many of you will be familiar with Snapseed as a mobile image processing app. It has a number of useful basic adjustments and quite a few filters to experiment with. What I do like is how it layers each adjustment so that you can go in and selectively apply it by painting it on (or off) at five intensity levels (0%, 25%, 50%, 75% and 100%). I used this in London Bridge in the rain, see previous page, top-left) to paint the red jacket in.

The key tools I use are:

- Ambience - controls contrast range prior to applying other effects
- Drama - contrast and structure adjustments

- HDR Scape - tonal control
- Vintage / Retrolux / Grunge - textures and tones
- Vignette - does what it says
- Healing - cloning out distractions
- Black and White

I have created some of my own presets that I often use as a starting point, then tweak according to my taste or mood.

Recent Work

The mobile phone is so ubiquitous it's become a fantastic device for street photography, (you are completely ignored!). This genre is not my forte but it's something I'm finding more and more intriguing. Using the *Slow Shutter Cam's* Blend control allows you to create a more impressionistic approach, blending moments in time in a creative and different way.

I'm enjoying the creativity I get using my smartphone's camera and I'm sure there will be new apps and uses I come across as my journey continues. It's a fantastic device to go out and create with.

See more of Robert's work at www.robfriel.com and on instagram @robfrielphotos.



Athletic leap by John Shaw ARPS

The DIG Print Circle



The Print Circle may be one of the hidden gems of the Digital Imaging Group.

ANDREW BROCHWICZ-LEWINSKI ARPS tells us more about this long-running part of the DIG.

One of the fascinations of running the Print Circle is seeing how widely (one might almost say 'wildly') the opinions of each of our members - all experienced photographers - vary on any one image. With a maximum Circle membership of twelve, every image is marked by the eleven others. So it is a bit like submitting the same photo to eleven different club competitions with a different judge for each.

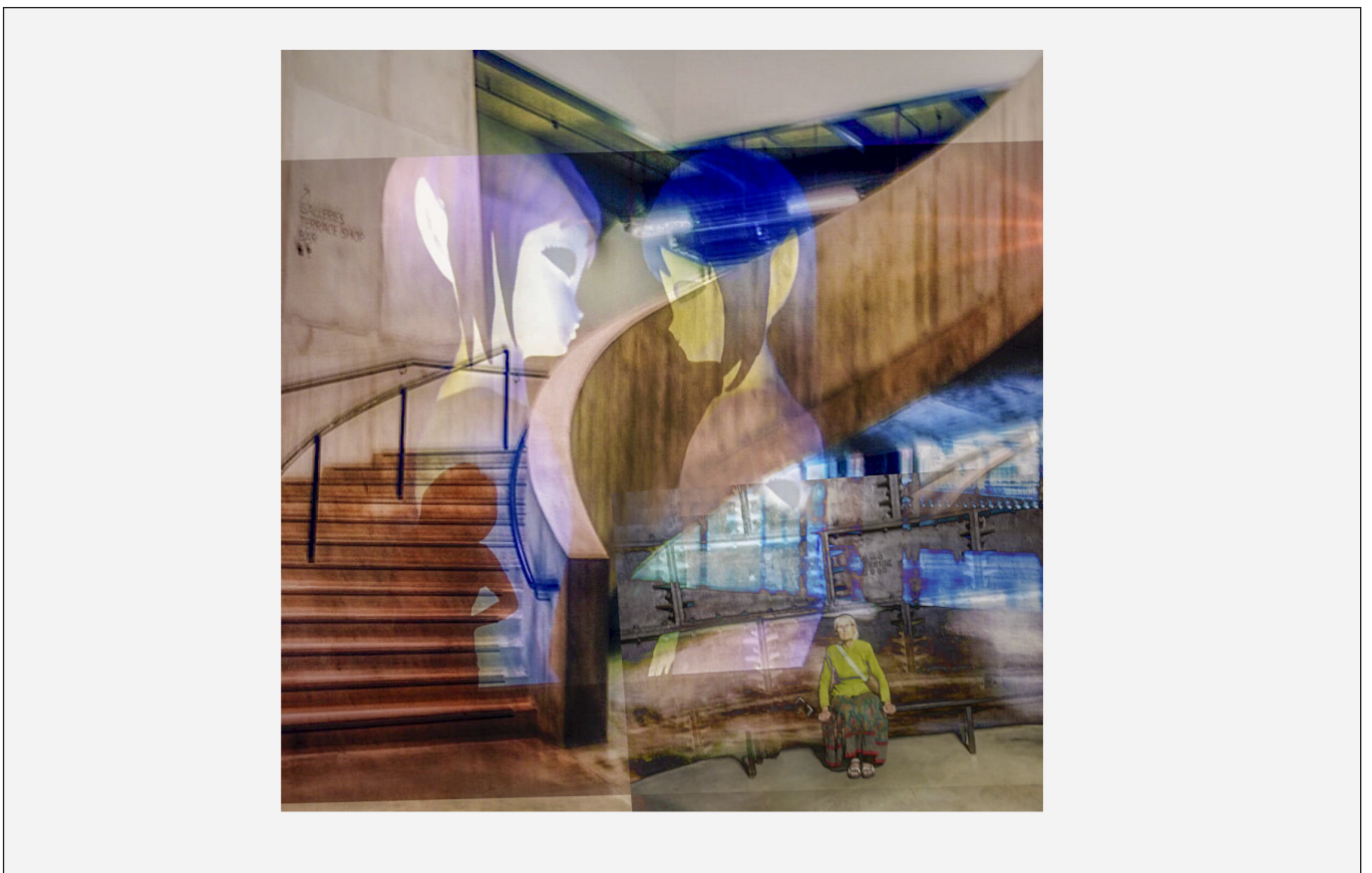
The way our system works is that for every round we each put in one A4 print, and then the folio circulates to everyone in turn. Subject matter

varies from very traditional landscape or studio set-up, through candid street or portrait, to more modernistic pattern, composite or plain quirky. Every member comments, usually very politely, on everyone else's image and then picks their top six in order of merit. The top choice gets six marks, second five and so on. OK, there is sometimes an image which most of us recognise as outstanding, but even then, in any round there are at least six different images that are rated in the top two by at least one member, and in one recent round as many as ten different images got that accolade. Thus the overall winner in any round is obviously one that

THE DIG PRINT CIRCLE



The Lifeguard Station by Peter Brook LRPS



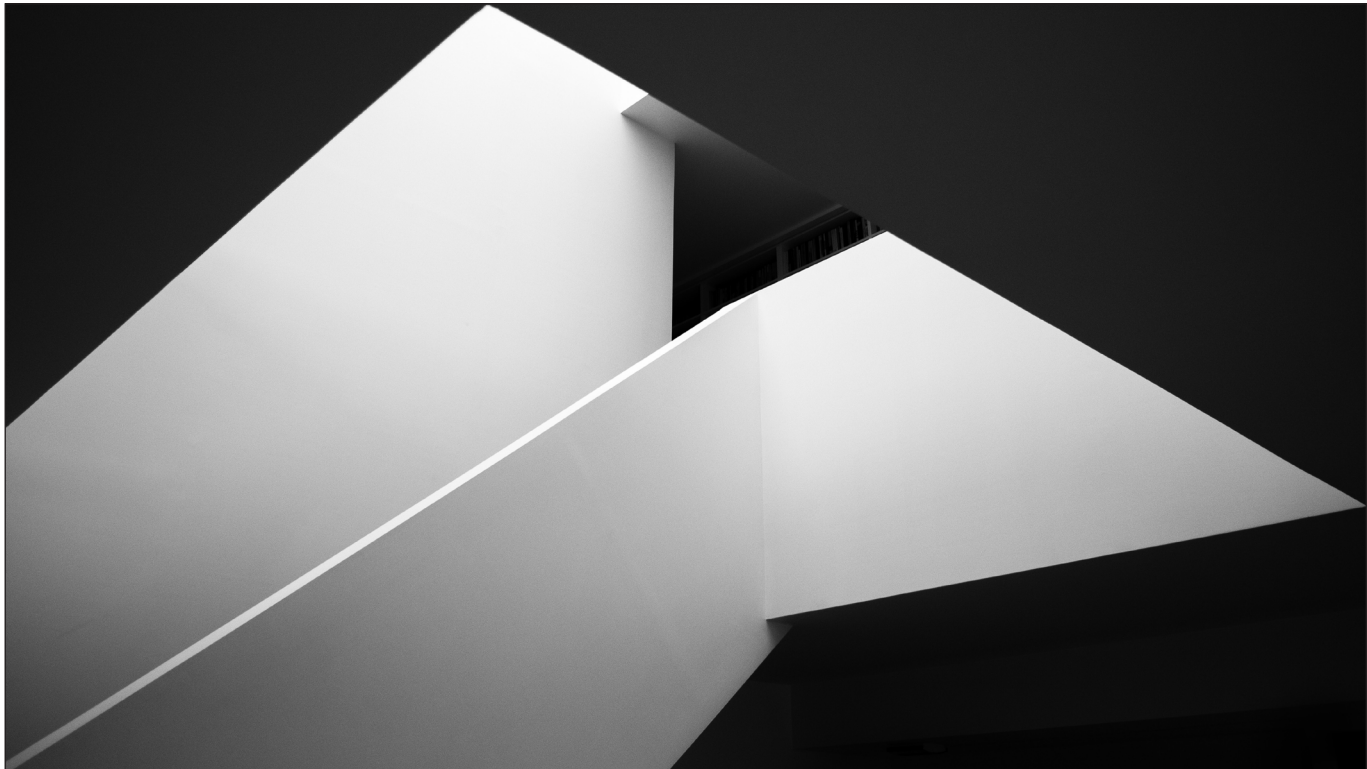
Tate Collection by Ken Wilkie LRPS

more people placed first but really also the one that fewest people didn't rate - so consensus rather

than unanimity. In the photos in this piece, I have included most of the *(continued on page 21)*



Touring the Moon on a Pepper by Bryan Kelvie FRPS



Skye House by Rex Waygood



Three weddings and a lady photographer



JULIE FRANCIS LRPS takes on the ultimate 'get it right first time' challenge.

Eighteen months ago I was asked to photograph three consecutive weddings for family and friends. Without giving it a second thought I immediately said yes, having photographed a couple of weddings many years ago on film. As the big days grew closer I realized that I would have one chance to get it right as I certainly could not go back and shoot again - something to bear in mind if you are intending to shoot a wedding. Luckily my husband Ashley is also a photographer and

between us we were confident to take on the task.

Wedding one was in a Somerset Country Hotel and the second two were both at the same registry office in Essex, albeit with different evening reception locations. Initially we took far too much camera equipment and quickly learned by wedding number two that all that is required are two camera bodies, three lenses (16-35mm, 24-70mm *f*/2.8 and 70-200mm *f*/2.8), a tripod and a decent flash. Small or on-camera flash is

THREE WEDDINGS AND A LADY PHOTOGRAPHER



not going to cut it. We also used a gold reflector and I took a pop up studio background for an evening 'photo booth', effectively a portable studio set up which proved extremely popular. If you are going to shoot a wedding you also need to think about the camera bag you use. It needs to have quick access, be comfortable to carry and waterproof. You also need to look smart and wear comfortable shoes. Another important point to bear in mind is that wedding photography is not camera club photography, and although it goes without saying that a good standard is required, you really do not have the time to fine tune every single individual image or you will be processing images for a month! Most of what was shot came straight out of the camera with a minimal amount of post processing. It is therefore worth remembering to get as much of what you shoot at weddings correct in the camera from the onset. Our brides and grooms were very happy with the photographs we gave them and certainly were not looking for bright spots, rules of thirds and all the other things that camera club members tend home in on. A 'record shot' should not be



considered a term of criticism for weddings!

Our first action was to visit the wedding locations beforehand, checking for possible obstacles and to locate the best areas from which to shoot. To our horror the Somerset Hotel had a very dark covered outdoor wooden pergola in the gardens where the couple were to be married, together with lurid artificial grass and unpainted iron railings and stairs in the form of a fire escape for the bride's grand entrance. I then discovered that as the official photographers we had a designated place to stand and this was not really ideal. Similarly, we had a designated place in the



Registry Office and the couple were to stand facing huge windows with very high ceilings. Backlighting from the windows together with strong colour cast from the ambient lighting proved problematic both from the perspective of colour balance and contrast. Visiting locations beforehand also gives you the opportunity to work out a Plan B should the British weather have its wicked way. We could also identify parking

THREE WEDDINGS AND A LADY PHOTOGRAPHER



locations and have a rough idea of the travel times involved between venues. There is no scope to be late as a wedding photographer!

I made a plan and decided that I was going to shoot the weddings as a sequence of events unfolding so that the story would emerge. I particularly wanted to capture candid moments with lots of small details that contribute towards those special memories. This meant taking time to shoot such things as close up shots of the bride's shoes, the flowers whilst laid out in the hotel, the back of the bridesmaids hair and tender moments between a young bridesmaid and grandma. We even took a macro shot of the wedding rings laid over an Ordnance Survey map so that the name of the village just peeped through the centre of the ring. We took close up shots of the table decorations, the cake and even the traditional jellied eels at the weddings in Essex. We wanted our Brides and Grooms to have a record of not just the people but also of the fine details.

Having both a male and female photographer really helps with the pre-wedding shots meaning I could concentrate on the bride and bridesmaids getting ready and Ashley could attend the second location to shoot the groom. I have to confess that my absolute favourite part of the day is shooting the bride and bridesmaids pre-wedding shots. After a while the bride and the rest of the party soon forget that you are in the room and that was when I took some of my most intimate images, capturing the magical moments as the transformation from track suits to beauty and joy begins to unfold. Most of these were shot on two cameras using a 24-70mm and 70-200mm lenses.

I did not need flash as the rooms were all well-lit and I could shoot wide open where required, occasionally pushing ISO up to the 400-800 range when necessary. I took all of the pre-wedding shots in manual mode. I shot all the weddings using a Nikon D750 (full-frame) and a Nikon 7100 (crop). Ideally I would like to shoot a wedding with 2 full frame bodies. Ashley is a Canon user and he shot with 5D Mark III (full-frame) and a 7D Mark II (crop).

Once finished with the pre-wedding shots it was then on to the venues and an opportunity to speak to the Registrar and introduce ourselves as the official photographers. The Registrar will show you where to stand and will pull no punches in telling you that to photograph the actual signing of the register itself is against the law. The 'signing' is a shot that you should not get wrong as it is always set up beforehand. For this shot I used the Nikon



THREE WEDDINGS AND A LADY PHOTOGRAPHER



D750 with 24mm-70mm $f/7.1$, $1/125$, ISO 100 with flash.

I obtained a list from the bride and groom as to which photographs they specifically wanted. Working from a list made the photography extremely efficient as guests are often anxious to start on the champagne. Photographing large groups was the most challenging as often guests were using their own mobile phones and cameras to take shots at the same time, meaning that to get everyone looking at the camera simultaneously was almost impossible. Eventually I asked them all to look at the camera and wave their hands which seemed to grab their attention long enough to get the shot. Other shots asked for were the throwing of the confetti shot and for this I did use shutter priority on continuous mode and fired off a burst which seemed to do the trick.

I quickly learned that at weddings one needs to be extremely bossy and in control and having someone to help organise people into groups is imperative. Having a family member helps if you are a stranger, if only to identify Aunt Joan or Uncle Bertie or whatever.

The photography does not stop at the ceremony and for us we travelled on to the reception. We took the obligatory photographs of the cake, the first dance, guests giving speeches and candid shots of guests becoming the worse for wear. At one of the receptions I set up a portable studio with a Speedlight on a stand with a small softbox. I used a tripod, the Nikon D750 with the 70mm-200mm lens. I mainly used between $f/9$ and $f/11$. This simple little portrait studio set up kept me busy all night as relatives wanted lots of family

group shots and was extremely popular.

We shot over 1,000 images at each wedding and of course the work does not stop there as we then had to make our best picks and process the images which we did in Lightroom. We were also asked to produce some black and white images. We did not get involved in any printing and gave the images to the happy couple on a memory stick enabling them to arrange their own prints and photobooks.

What I learnt from the experience is that professional wedding photographers do it right! You only need three lenses and even then the wide angle was used only for the group shots. Secondly, have a plan and be prepared! Ensure that you have enough spare batteries, cards, etc. and test your equipment the day before. Thirdly, be committed and confident. Take lots of shots as the one thing you cannot repeat is the moment. Don't miss the moment! You will not get to enjoy the wedding - it's hard work and a long day on your feet, carrying heavy equipment with a camera ready to shoot at all times. Notwithstanding this, would I do it again I hear you ask. Yes, I do believe I would.





Cloning your life away



Few shots are perfect straight out of the camera. It's so easy to miss the odd irritating distraction, or passer-by passing by at just the wrong moment. **DAVID CUMMINGS ARPS** has become a dab hand at cloning those distractions out.

Like any member of the Digital Imaging Group, I enjoy using both digital cameras and software to create images that reflect what I think is important to show to others. I have been known to lecture and write articles on a 'simple' workflow in which an image is captured in a manner that is already

composed and exposed for presenting as a final image with little manipulation. As a matter of personal taste and philosophical leaning, I don't spend a lot of time combining images to expand either tonal range or to add disparate elements to create a new 'combined' image.



Machu Picchu, 2013 - edited version

But I've been bitten by Photoshop's Clone Stamp Tool as a way to leave out things that just maybe don't belong. That tool and the Spot Healing Brush are great ways to clean up an image in ways that weren't possible before the new software tools arrived. Too many times in the past we'd be frustrated because a film image had elements that just didn't belong, and added needless detail and confusion to a scene. There are many old negatives that I didn't bother to print because something just didn't belong and I couldn't fix it. These days that's not the problem it was in the past. Welcome the Clone Stamp Tool and its sister the Spot Healing Brush Tool.

Here I present three examples of how you can

spend endless time using these tools effectively to improve a scene. Hence the title. The final image of Notre Dame Cathedral (see next page) took seven hours of editing over two evenings. I normally wouldn't spend the time doing this (I work full-time) but this is the Fourth of July week in USA and we do very little except wave flags and sit at the computer for a few days. The task of preparing these images was strangely appealing to my OCD personality this week. I'll likely not spend this much time cloning an image like this again any time soon.

The image of Machu Picchu, above, is a panorama of four vertical images. I had promised myself before the trip I wouldn't take that hackneyed



Notre Dame de Paris, 2011 - edited version

view but when you're there you just can't resist. The problem was the hundreds of tourists just like me that were enjoying the scene (see page 20 for the original view). Of course, you can be the first person there in the morning or the last to leave,

but short of this you must have people in your 'iconic' image of Machu Picchu. Or you can fix some tea and start cloning them out.

If you enlarge the image and study it at pixel level, my shortcomings as a retoucher are readily



Meknes, Morocco, 2017 - edited version

evident. Some of the areas were quite easy to fix - sample a stony wall from next to the people, overwrite them with the stamp tool, and maybe clone tiny areas inside and around the area to disguise the fact that it's the same stones over and over. But some areas did not have visually similar analogues nearby and maybe I rushed a little. So be sure that you can find areas that were cloned if you spend a minute with the original image which is part of the panorama that had the people in it. That's what I had to deal with. I will say that I have a sixty-inch print of that image in my office and in five years no one has gotten close enough to it to see what I did. Nobody has ever noticed that it was retouched. That is the value of not showing the original beside the one you fixed. Believe me, the lay public won't notice. Digital Imaging Group members may.

One thing I've learned is obvious when you think of it: the Machu Picchu panorama was four vertical images from a Nikon D800e put together. The raw files are about 36mp, and the finished panorama when cropped a little was 12,859 pixels wide. That's a lot of detail. Even when enlarged



Meknes, Morocco, 2017 - original version

for working, it was hard to blend in stones with other stones without tell-tale edge artefacts. I learned that doing tons of cloning is easier to hide with a lower resolution image.

Consider the image of Meknes, Morocco, above. It is an example of a rather pedestrian travel image that had lots going on around the main subjects. It's not a special image but it is a useful exercise in what we're talking about. Note that it's possible to take out the man behind the standing woman by sampling and using elements of the wall near where he sits. The important part is trying to not show repeating patterns as you sample, move, and drop image content over the thing you want to hide. The finished image may be a little 'sterile' compared to the original but if the finished version is all you had to look at I think you'd buy it as a valid concept.

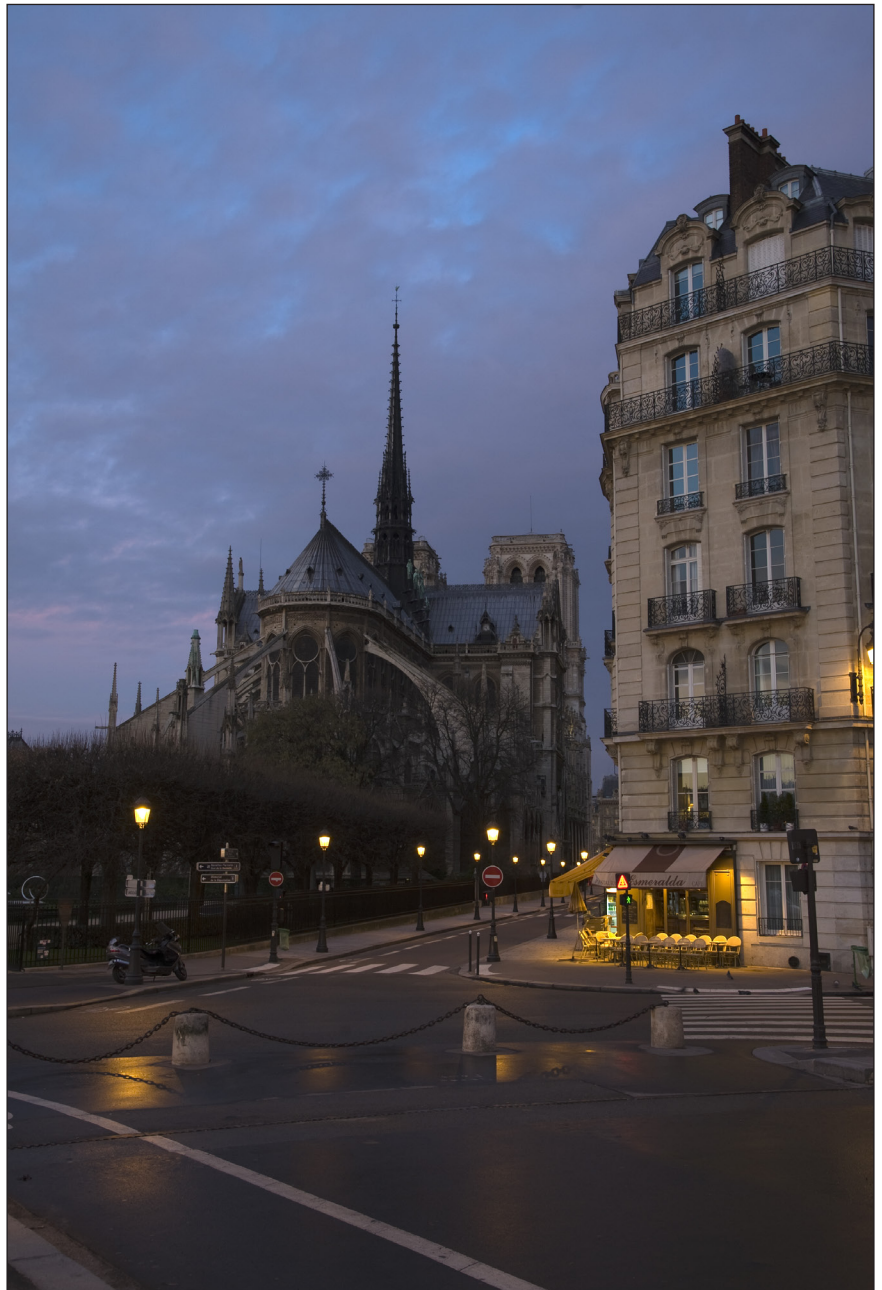
Sometimes it's useful to use the Quick Selection Tool to select the element you're keeping. Then when you drop cloned information next to it, it stays out of the selection border. I gather that my audience doesn't need much detailed explanation of the technical use of the tools.

CLONING YOUR LIFE AWAY

The original image of Notre Dame de Paris, right, is from a Nikon D700. It is a single image that started at 12mp, and when you enlarge it to clone details you get a pleasant fuzzy blur in details and along edges that hides your sins much better. The reader may not be impressed with either the original or the final retouched image, but it was fun to see how far I could take it. Note that after correcting the verticals I had to make up the right side of the foreground building, and then I decided to lose the street signs, the kerb painting, and the crosswalks. I couldn't come up with a realistic texture for the pavement after deleting the bollards, so I just cropped a lot of it off the bottom. The lighted cooler at the left of the restaurant had to go. The casual observer won't notice it, but I had to reconstruct the 'E' of 'Esmerelda' from whole cloth. There was no 'n' to copy to complete the 'Restaurant' word, so I cheated. It seemed natural to lose the streetlights, so I did. Only on the second evening did I have the courage to lose the motorcycle and the large heavy black crossing sign in front of the window in the lower right. I had to construct the window from other parts of the window.

Of course careful comparison of the two images shows my shortcomings, but if I hung an 11x14 of the retouched version in my office alone quite likely nobody would notice a thing. That's why we do what we do with these images.

I don't consider myself an expert in the ways of Photoshop, but if this article gives a reader the insight to play with these particular tools, then it was an effort worth doing. Do compare the pairs of images. And then consider that the retouched one may be valid if viewed alone.



Notre Dame de Paris, 2011 - original version



Machu Picchu, 2013 - part of the original version, including tourists



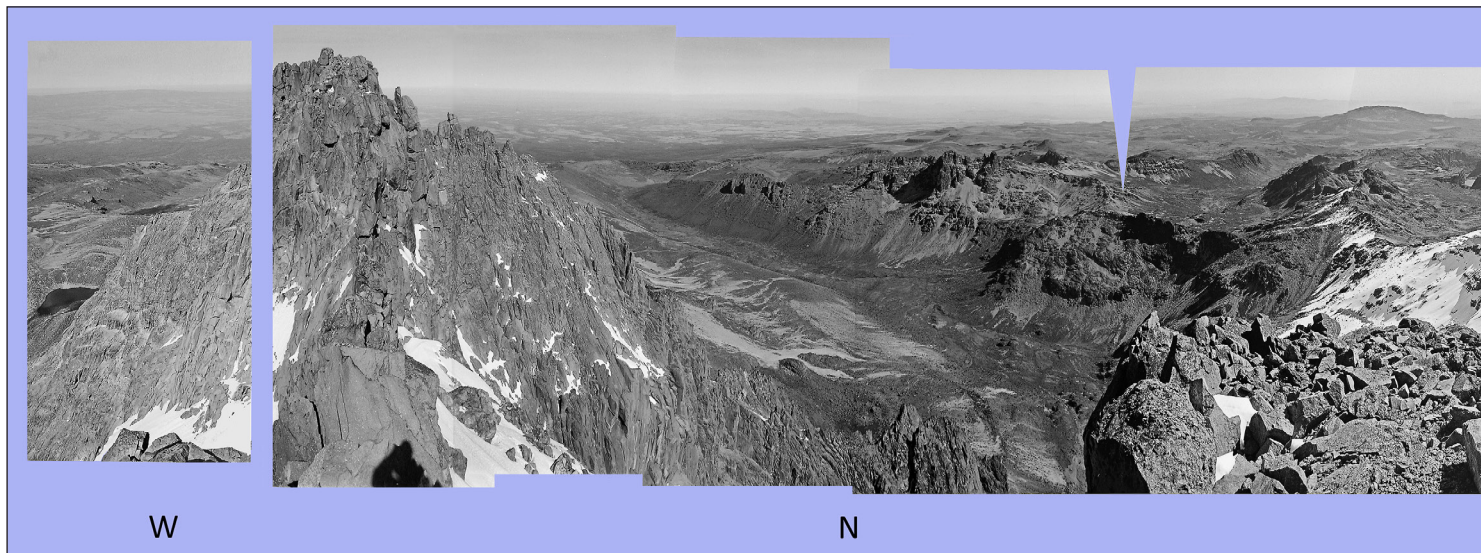
I See You by Dennis Russ LRPS

(continued from page 11) winners in our last four rounds, but also one or two interesting non-winners that were 'loved or hated'. I wonder how many of you could correctly pick which were which. I'll give you one answer: the clearest run-away winner was John Shaw's *Athletic Leap* - but even that had three people who did not rate it higher than sixth. And that is why the Circle is such useful fun. We have and celebrate our differences.

The Circle is on Round 238 at present. Since nowadays we complete about four rounds per annum, the Circle must have been going for ages before any of the current members ever heard of it. Originally we were part of the now-defunct RPS Colour Group. When that group folded some

five years ago, we were made welcome in the Digital Imaging Group, where we seem to have flourished. We are, I suppose, quite a glam group at this moment, with one FRPS, three ARPSs and five LRPSs. But we do all know that letters do not necessarily make the best photos!

As I said earlier, the maximum membership can only be twelve as otherwise the whole operation becomes too cumbersome and long-winded. The lowest comfortable membership is eight, as any less means the competitiveness becomes a bit less meaningful. At present, we have just dropped to eleven, so we have the welcome mat ready for one new recruit. If interested, do contact me on abroch@btinternet.com.



Based on the original monochrome negatives taken in 1966, but recently digitised and spliced together using Photoshop the near side of Batian lies the Gate of the Mists (not visible); directly N is the broad expanse of the Mackinder Valley sloping towards S; on the horizon stretching from SW to NW is the high ground of the Aberdares range.

Photographing Mount Kenya

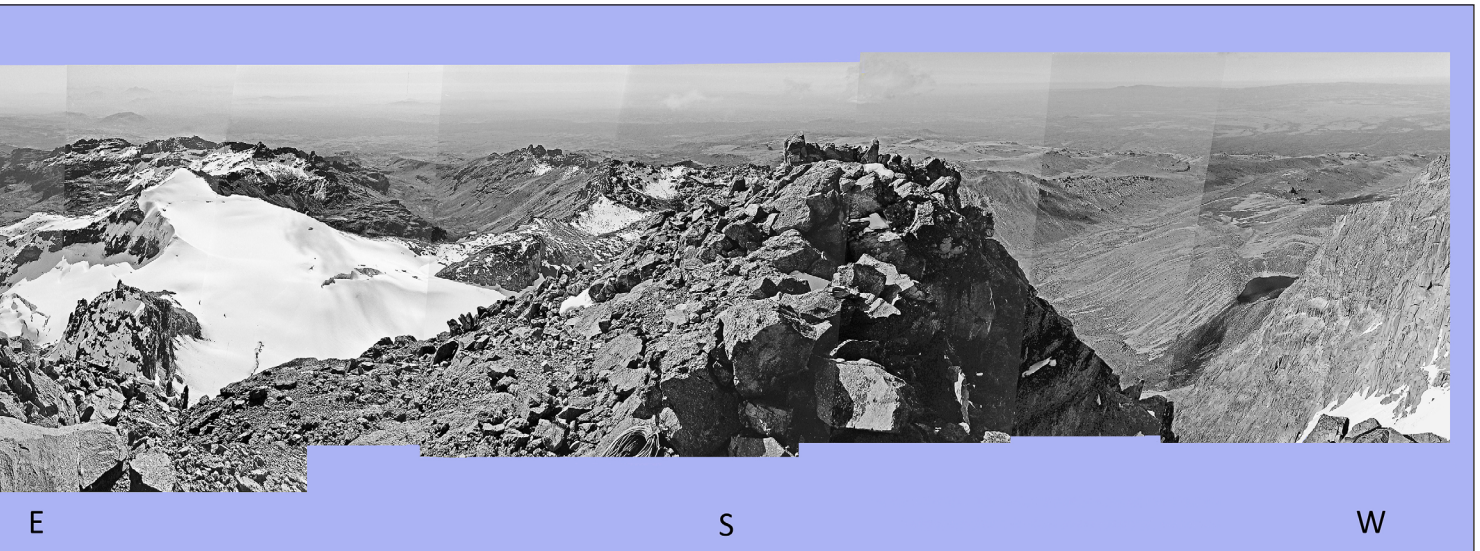


Over fifty years ago ANDREW CAROTHERS LRPS climbed Mount Kenya with his camera. Now h today's technology he recreates the panorama that he shot during his climb.

Over half a century ago, as a newly qualified teacher I spent two years at a school close to the foothills of Mount Kenya. Like many others before and since, I was fascinated by the sight of its craggy peaks, perpetually covered in snow and ice just 16km south of the equator. On clear moonlit nights the glaciers shone like beacons over the surrounding plains and forests, inspiring me to take a closer look. Over the following years I made several visits to the peak area, climbing what is sometimes rather disparagingly called the 'tourist' peak of Point Lenana (4985m). It is not to be taken lightly, however, as it requires high levels of fitness to reach. In the middle of World War 2, it became the focus of an extraordinary episode. In February 1943 a party of climbers reached Lenana and were astonished to find on the summit the flag of Italy, at that time an enemy of the British Empire of which Kenya was a part. The story of how it came to be there is surely one of the most remarkable in the history of mountaineering. Three Italian prisoners of war, confined in a camp just north of Mount Kenya,

and bored out of their minds by the tedium of camp life, had decided on a bold plan to break out and climb the mountain. Over several weeks they secretly accumulated some rations and makeshift climbing gear before escaping one night and making for the distant peaks. They had no maps, their only guide being a view of the mountain taken from a corned beef tin. For fear of discovery they avoided well-used tracks and were forced to hack their way for several days through dense undergrowth. On reaching the peak area they realised they were too exhausted and poorly equipped to tackle the main summits, so they planted their flag on Lenana instead. On their return they sneaked back into camp at night, reported for morning roll-call and were duly sent to the clink for a spell as punishment. The epic adventure was later recounted in a book, still in print and well worth a read (*No Picnic on Mount Kenya* by Felice Benuzzi).

The twin main peaks, Batian (5199m) and Nelion (5188m), are a different proposition, however, requiring rock-climbing skills and



Top. Points of interest: to the N of W is the peak of Batian, with author's shadow below; between the shadow and with the peaks of Terere and Sendeyo on the far side; to the S of E is the peak of Point Lenana with the Lewis Glacier

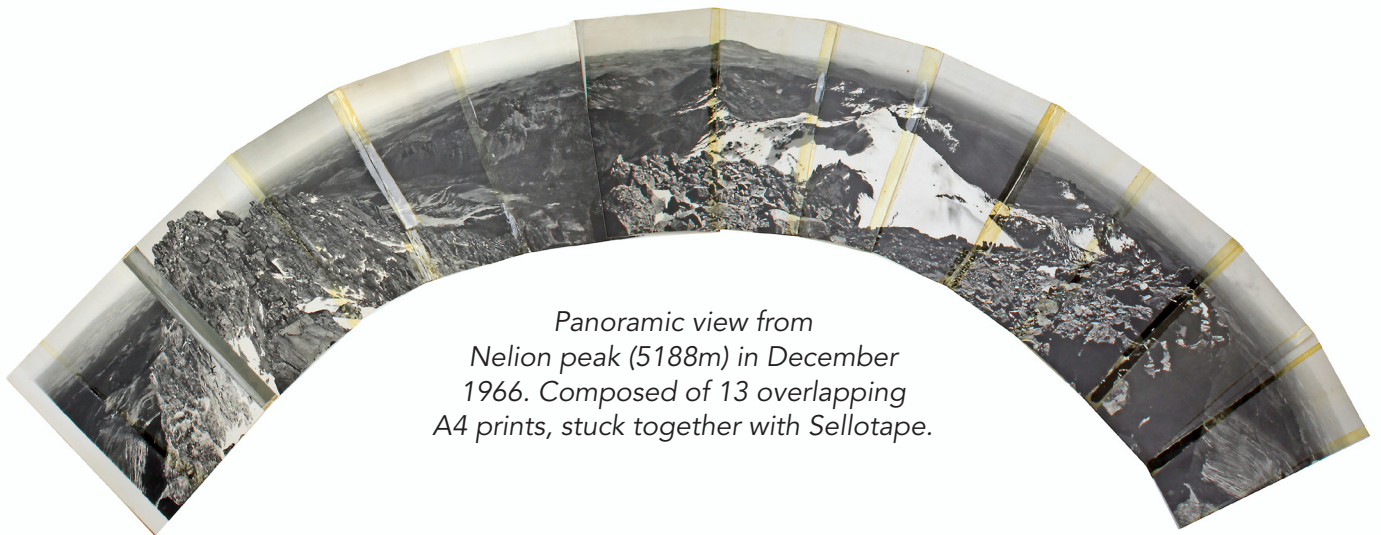
in the 1960s

re revisits his negatives and, with the aid of

good equipment. My chance came in December 1966, when an experienced climbing friend, Charlie Barton, asked me to join him in an attempt on them. As a keen, though immature, photographer I had the idea of taking a full 360 degree panorama from the peaks. So far as I knew no-one had done this before. Indeed, by 1966 only a hundred or so people had ever reached the summit, and even fewer would have had both the motivation and the right weather conditions for photography. We planned to reach the summits by mid-morning at the latest, as typically mist and cloud built up during the day. Accordingly, we set off from the hut at the base of Lenana some two hours before dawn, equipped with ropes, crampons, ice-axes, etc. We traversed the Lewis Glacier under the stars, then climbed the southeast face of Nelion to reach its summit at about 9 am. Already, we could see cloud moving in from the south so, rather than wait until we reached the peak of Batian, I took the panorama then and there. It required 13 frames, spaced roughly 25-30 degrees apart

on 35mm monochrome film using a hand-held Leica M3 camera. We reached Batian about two hours later after abseiling down into a deep cleft, known as the Gate of the Mists, then climbing up the other side. By this time, cloud surrounded us and visibility was down to a few metres, so further photography was pointless. On returning home I printed the 13 frames on A4 paper, then overlapped them and stuck them together with Sellotape. The result (see next page) was not quite what I expected. Instead of coming out in a nice straight line they formed a rather ungainly 90 degree quadrant. So I learnt, too late, that when taking a panoramic view it is advisable to keep the horizon (a) horizontal and (b) in the centre of the field of view! Still, it was the best I could do in those far-off pre-digital days, and so I put it aside for the next 50 or so years. Then in 2018 I rediscovered the original negatives still in excellent condition in the back of a cupboard, and thought of using digital technology to straighten out the distortions and piece together the whole ensemble as a single image. I used a slide copier

PHOTOGRAPHING MOUNT KENYA IN THE 1960s



*Panoramic view from
Nelion peak (5188m) in December
1966. Composed of 13 overlapping
A4 prints, stuck together with Sellotape.*

to digitise the negatives, then the 'Invert' filter in Photoshop to convert to positives. I had hoped to find software to help stitch the images together, but couldn't get satisfactory results. So, it was a question of painstakingly adjusting each image to its neighbours through many iterations until they all joined together as seamlessly as possible. The main distortions, caused originally by my pointing the camera downwards, were corrected fairly easily by stretching the bottom of each image with the 'Distort' filter, but others required many hours of patient jiggling. Finally, I added a plain background to set off the main image and inserted the cardinal points with the help of a large-scale map. The end result (see previous page) is a great improvement and really brings the scene to life. As can be seen, there are two small gaps in the main coverage which honesty required me to leave in place. Also several joins are visible as slight differences in brightness between adjacent images. These resulted from taking the originals in all possible directions under the full equatorial sun, and I was unable to remove them completely. It might be possible to reduce them further, but I prefer to keep them in as a reminder of how it was all put together.

This view would look very different today. The glaciers on Mount Kenya, as on many other mountains, have retreated drastically over the last half century. The images to the right show the extent of the loss from the Lewis Glacier between 1965 and 2010. When the German missionary, Johann Krapf, became the first European to set eyes on Mount Kenya in 1849, many could not at first believe that he had seen snow and ice so close to the equator because they thought it impossible. Sadly, the doubters



Shrinkage of the Lewis Glacier. The upper image was taken by the author in 1965 (the foreground figure is of Charlie Barton). The lower image was taken from an almost identical viewpoint in 2010 (with kind permission of Dr Hilde Eggermont).

may yet be proved right as it seems likely that by the end of this century Africa's equatorial glaciers will be no more than a memory. Although they were already retreating in the 1960s, I feel very fortunate to have been able to see and photograph them in something closer to their pristine glory.



Can you tell the difference?

The image on the left uses only 256 colours while the one on the right uses only 64 colours.

Home experiment with colours



Ever adventurous, REX WAYGOOD has been delving into the intricacies of colours once again. This time he's investigating just how many colours we can do without.

What you need:

- Patience
- PS or Elements (not Affinity)
- Some A4 printing paper, quantity proportional to patience or curiosity
- Some test images
- A few test observers
- A file naming system to keep a track of what you have done
- A pen

Background

Everyone knows that Photoshop is 16 bits, but it isn't really. It uses 16 bits to express levels from 0 to 32768, i.e. $2^{15} + 1$ with the 16th bit being the 1.

Anecdotally this led to a discussion on an online forum about Adobe stealing half the

complainant's colours, i.e. 2^{15} vs. 2^{16} . Fortunately, his inability to understand numbers and colours meant that his wrath was only one quarter of what it should have been as the real loss is nearer 2^3 (8) times, i.e. he has lost 7/8th of his colours and only has 1/8th left (ignoring the slight error due to the +1)! That is because there are three channels to create a colour. Adobe Photoshop can represent $(2^{15}+1)^3 = 3.518 \times 10^{13}$ colours, a lot. Elements is a bit less!

Having discovered we are using a restricted tool we can do some home experiments to discover if it really matters when looking at images. (Spoiler: it doesn't.)

In Photoshop and Elements there are two tools that can allow us to experiment with limiting the number of colours in our image. They are:

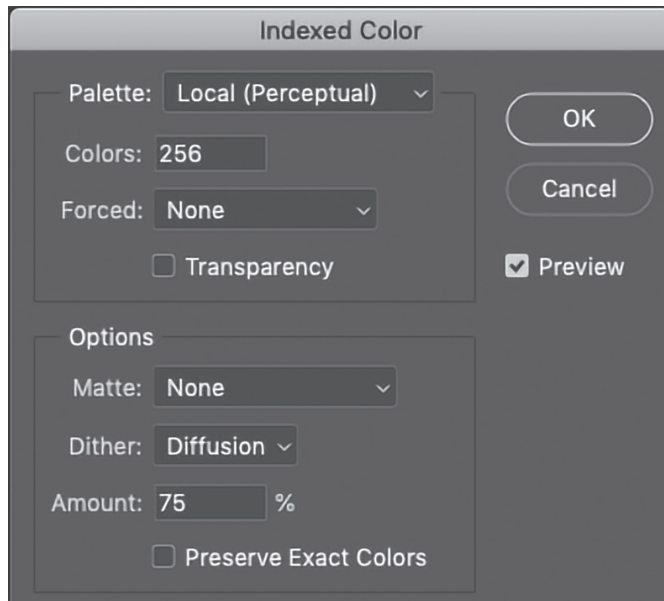
- Image/Mode/Index Color (if this is greyed out

HOME EXPERIMENT WITH COLOURS

then convert the image from 16-bit to 8-bit), and

- File/Save As/CompuServe Gif.

Either way you get this pop-up.



The maximum number of colours you can choose is 256.

At this point I will confess that in my first experiment (*Caught*), I chose an image that I was pretty confident did not need a lot of colours and avoided any gentle gradients that would show the lack of colours.

I suggest that you try something like *Caught*, a portrait like *Nora*, and something perhaps with a gradient sky. If you are still curious do some more!

If you want to understand the settings at this point, then read this (it links to Adobe Help):

<https://tinyurl.com/index-colours>

Having chosen your images for the experiment I recommend that you use a good file name system.

This is the experiment I did with Dither

PA093509_8_LP_64_DitherDiff75.tif

PA093509_8_LP_64_DitherNone.tif

PA093509_8_LP_128_DitherDiff75.tif

PA093509_8_LP_128_DitherNone.tif

PA093509_8_LP_256_DitherDiff75.tif

PA093509_8_LP_256_DitherNone.tif

The file naming convention I use is 'File Name_8 Bit_Palette LP = Local Perceptual_Number of Colours_Dither Diff = Diffusion.tif'

If you do not do this, I guarantee you will get lost!



Above: *Caught* -
top PA093509_8_LP_256_DitherDiff75,
middle PA093509_8_LP_128_DitherDiff75,
bottom PA093509_8_LP_64_DitherDiff75.

Right: *Nora* -
top M7303223_8LP_256_DitherDiff75,
middle M7303223_8_LP_128_DitherDiff75,
bottom M7303223_8_LP_64_DitherDiff75.

I speak from experience!

I did not experiment with Forced other than None, Transparency, Matte other than None or Preserve Exact Colors.

I returned to the original 8-bit TIF version to create the next Index Color version.

I also suggest keeping a copy of the original in case you overwrite it!

I struggle to see the difference between Dither None and Dither Diffusion 75% in my images. I think the settings are subject dependant.

The pen is to write these settings on the back of the print as soon as it emerges from the printer!

I then printed out four images, the original 8 bit and the three with a reduced colour count.

Then you need to find a few human beings, preferably not photographers! Lay the prints out randomly so that they are not easily compared, i.e. not next to each other. (I also assigned random numbers to the front of the prints to help the poll.) Then ask your humans to wander round and tell you the order best to worst quality of print. Do not tell them how they differ before the experiment!

Warning! If you create and save the Indexed Color files and then want to see what they look like printed, then you must turn the mode back to RGB Color. Also don't resize the image, the resize can create colours. (256 to 273359! on my test)

As I had 'cheated' with *Caught*, knowing that it would hide the effects of a limited palette, I then did the same experiment with a portrait of Nora, my wife, guessing the skin tones would show the limited palette. I also admit that other demands on my time and diminishing curiosity means I haven't tried an image with a sky.

In my experiments not many observers have got the order of quality correct!

Were you surprised by your results?



Additional Information

You will notice that when you have created an Index Color Image there are a limited number of save options, I used TIFF.

I exported a 100-colour image to JPEG aware that the compression would increase the colour count. I had 8664 colours in the JPEG. Another set of experiments?

In my experiment I used a default colourspace of sRGB. The images in this article are indicative.

Are Index Colors of any use? With architectural images the limited palette is artistically interesting (Mike Cowdrey-type Images). They are usually used to make images for the web. For more detailed help with Indexing colours in Photoshop then Googling 'Index Colours in Photoshop' brings up more detailed help if required, including videos.

How do you count colours in an image? There is a plugin for counting colours - <http://www.telegraphics.com.au/sw/product/CountColours>. I cannot get it to work in my Mac version of CC but it does work in my Elements. I would be interested to hear if you can get it going in CC for a Mac. I use a different method of counting colours using ColorThink Pro.

If your curiosity wonders what happens above 256 colours here is a method.

Crop your image into four sections. This can be done 'unequally' to suit the image. Individually Color Index them. Put them back together. The maximum colour count will be 4 times the Color count you chose. I did Nora's portrait at 4*256 (1024) and a colour count gave 985 colours.

If you would like to see the reduction in colours in Lab colourspace here are two links to YouTube Videos for both Caught and Nora. The first shown in both videos is the full colour version, then the 256 indexed and finally the 64 indexed.

Caught <https://tinyurl.com/caught-indexed>

Nora <https://tinyurl.com/Nora-Indexed>

A real techie exercise was to compare the original Caught file with the 256-colour version and then the 64-colour version. I did this by sampling the two pairs of images on a 120*90 grid (10,800 points) and measuring ΔE_{00} at each point. I then found the average, maximum and minimum values.

Caught All to 256 ΔE_{00} (Ave, Max, Min) = 2.98, 18.79, 0

Caught All to 64 ΔE_{00} (Ave, Max, Min) = 3.94, 27.80, 0.21

(Note: ColorThink Pro uses ΔE_{00} rather than the simpler ΔE_{ab} . There is no simple conversion! See CIEDE2000 in the Wiki page below).

This next bit is idle curiosity and in no way a rigorous bit of colour theory, it is more of a sizing of the problem, but you might be interested. There is a thing called Pointer's Gamut and it is the gamut associated with real reflective surfaces. (Google Pointer's Gamut for more info. I liked <https://tinyurl.com/pointers-gamut>) I propose that you are unlikely to ever take a photo that contains all known reflective surfaces! What colour count is required to fill Pointer's Gamut with just noticeable different colours? A measure of colour difference is ΔE_{ab} , which is simply the distance between colours in L,a,b, a 3D colour co-ordinate system. (See https://en.wikipedia.org/wiki/Color_difference) The level of colour difference is statistical with lots of observers. Wikipedia quote a Just Noticeable Difference (JND) of $\Delta E_{ab} \cong 2.3$, others say $\Delta E_{ab} = 4$ for a perceivable difference, but I took $\Delta E_{ab} = 5$ as that made the task doable! My count gave 7165 colours to represent all the real world's reflective colours. My hypothesis is a real photo would need less!

Color is spelt that way when referring to a Photoshop command or menu.

Thanks to Dr Tony Kaye ASIS FRPS for his assistance, guidance and checking. Thanks to Dr Barry Senior Hon FRPS for checking. Thanks to Iain Robinson at Henry Ling Ltd. for checking that Indexed tiffs would print.



BALANCING THE BOOKS

Roger Hinton LRPS

The idea for 'Balancing the Books' evolved from an informal monthly project we have here at Bon Accord CC in Aberdeen. A word is chosen and members interpret that in their own style. On this occasion the word was 'Books'.

My idea was to create a stack of books which appeared to be about to fall over. I would then add a figure to the top of the stack. All Images were taken in RAW with a Nikon D800 and processed in Photoshop CC.

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I arranged the books on edge on the floor, with a black back-cloth to make cutting them out easier (see figure 1). The lighting was fairly even so I could match up the light and shade with other elements at a later stage.

The background for this image comprises part of a cobbled courtyard with buildings masked out to form the base with rendered cloud layers above to provide a dreamy sky (see figure 2). These are merged with a graduated layer mask. With opacity of the cloud layers set to 90%, a blue layer beneath, plus curves adjustment, helped to lift the colour of the sky. An enlarged and blurred copy of the cloud layer was laid over the whole image with low opacity to add a misty feel.

The figures came from my collection of Edinburgh Fringe images from various different visits. I had a tightrope walker and a clown bending down. The girl pointing up provided a third link for a triangular composition. There are always lots of unusual characters on the Royal Mile during the Fringe. The problem is that the street is very busy. It is well-nigh impossible to get a clear shot so the subjects generally have to be selected and cut out to be useful (see figure 3).

I make my cut-outs by first using the quick selection tool. This can be fairly rough as the selection is then refined using the Polygon Lasso selection tool to add or subtract areas of detail whilst zoomed close in. The selection can be saved at any time by creating a layer mask. Ctrl/Cmd and click on the mask then gets the marching ants back for further work. Just delete the old mask and create a new one as work progresses. The accuracy of the cut-out can be checked by displaying the image layer, with its layer mask active, over a plain white or black background layer. Fine adjustments can then be made by painting white or black into the layer mask. Finally the selection is feathered by 1 or 2 pixels to help it blend in using the Select and Mask panel.

Spending time to get a good cut-out and ensuring the lighting is compatible is essential for a natural looking composite.

Each of the main subject elements has been stored in a separate group folder. The lighting for each figure and associated stack of books was then adjusted using individual clipping masks for levels, curves etc. as necessary and the layers annotated to record what went on (see figure 4).

Finally the three main elements were each grounded to the cobbles by adding shadows lightly painted in black onto blank layers using a soft, low opacity brush.



Figure 1

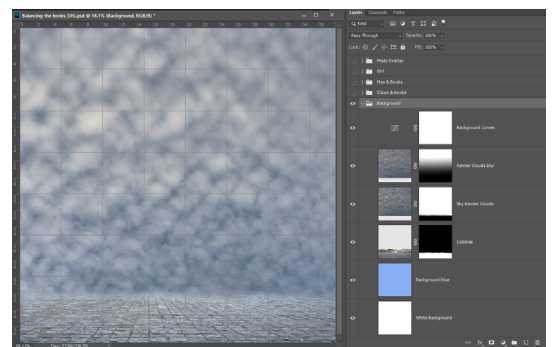


Figure 2

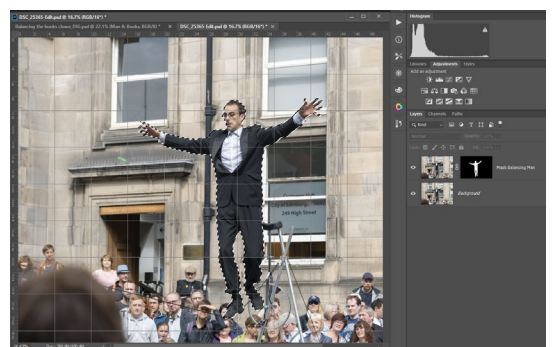


Figure 3

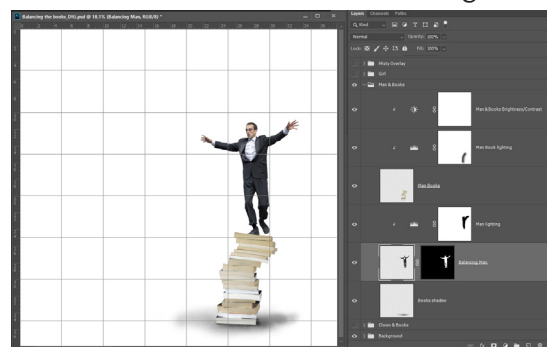


Figure 4



SPEEDWAY

Michael Berkeley LRPS

I am always looking for new sports to photograph, so I wrote to the Press Officer at Poole Pirates and he was happy to give me a Press Pass for the fixture against Belle Vue Speedway.

For those unfamiliar with speedway, a 'match' consists of 15 races of 4 laps of a dirt track, with bikes (which have only one gear and no brakes) reaching speeds of over 70 mph. Coloured helmets indicate which team the rider is on, red and blue denoting home team riders.

The fixture started at 7:30 pm and, as it was a sunny evening, the light was ideal for photography. Over the evening, I tried all sorts of places to shoot from, both from inside and outside the track, and I found the most fruitful location was inside the track by the start/finish line.

Nine times out of ten, you will see images of speedway taken with a high shutter speed, which will freeze the action (see right). This is easy to do, with the only real challenge being to get the subject in focus.

This gives a very sharp image but, to my mind, the result appears static and lacks atmosphere. I therefore tried panning as the bikes came around the corner. With the camera set to 3D-tracking (AI-Servo in Canon speak), I 'locked on' to the rider as he approached the corner and the camera kept him in focus as he moved across the viewfinder. The trick is to blur the



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background, while keeping the rider sharp - the result is much more effective, providing movement and therefore drama. This involves a degree of trial and error, and it is easier if using a tripod or monopod. As it happens, my final image (see right) was handheld and was the 4th of 14 shots that I took in that particular continuous burst. I selected it over the others because of the way in which the grit was being thrown up by the rear tyre, which added to the impact.

I don't find panning the easiest of techniques and that partly explains why I had over 1200 files to review the following day!

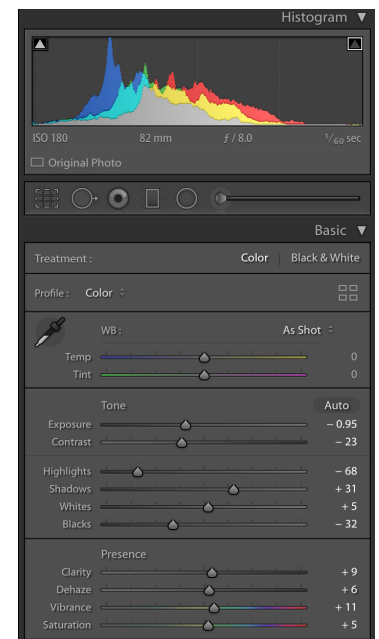
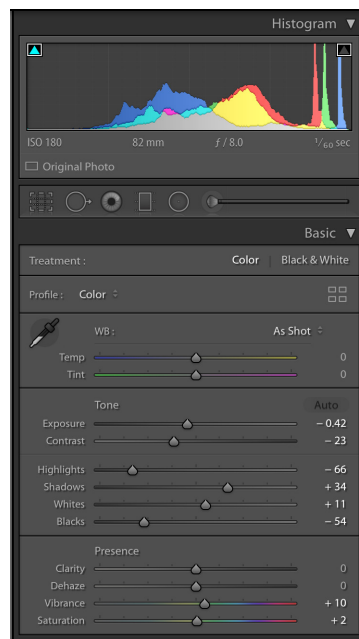
In Lightroom, my first step is usually to review exposure. I use 'Auto' first to see what it will give me, and I find this is normally a very good start. In this instance, I increased clarity a small amount and reduced the exposure slightly to provide more richness to the final image.

I then cropped the image, leaving a bit more space to the left of the image to allow the rider to 'move into'. In hindsight, I am slightly surprised that - using a 70-200mm lens - I was at 82mm rather than a bit longer, but that was probably because it made it easier to pan.

All in all, I was pleased with the result. I was even more pleased when the judges accepted it during the DIG Annual Members Projected Image Competition!



The original shot



Exposure adjustments in Lightroom ('Auto' on the left and adjusted settings on the right)

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WATERFALL

Ton van der Laan LRPS

I love to take images of water and specially of moving water. A close up of a waterfall as in this case, with so many options to approach it, gives the extra challenge of finding the right composition and the optimal balance between aperture, focal length and shutter speed. I had to take many images to have a few that have interesting dynamics and power in the composition.

This photo was made on a trip to Scotland in 2017 with my wife. We made a day trip along the River Dochart that took us to Killin and the Falls of Dochart. It was dry but with uninteresting grey light. Standing on a bridge gave me the best option to get the simple composition I was looking for. Less is more. With my Sony RX10 Mark III with its 24-600mm lens I had a lot of flexibility to play with the focal length to find a good composition.

I set the ISO value to 100 to be able to work with the slow shutter speeds that would soften the water but retain the flow lines. The Sony's excellent stabilization proved itself when I zoomed in to 600mm hand held to get really close to my subject. I didn't have great expectations that I would get anything usable but even with a shutter speed of $\frac{1}{15}$ sec hand-held, a number of sharp images appeared on the LCD screen.

The image I chose for the print contest had the right dynamics for me with a horizontal flow of darker water at the base and a lighter yellow diagonal flow of water colliding with the surging water to

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the left. I liked the speed of the water and the clashing currents, but this image needed post processing to bring out the potential power of the image. Straight from camera it was quite flat.

I processed the image in Adobe Camera Raw 9.1.1. I took down the exposure a bit (-0,55). There was room to increase the Whites +42 and to add a bit of Vibrance (+9). With the Adjustment Brush I painted the yellows and some other parts to enhance the local contrast, using quite a bit of Clarity (+56) to give the darker streaks in the water more definition.

Sometimes you know you are ready with post processing and you have your final image; sometimes you have to wait a while and look at the image again and again. In my opinion the yellows were still a bit flat so I upped the saturation of yellow by 20 to 25 using Photoshop. I compared this with doing the same in Camera Raw but I got a better result with saturating the yellows in Photoshop.



Image out of camera



Image after RAW conversion

PRINT EXHIBITION 2019 CATALOGUE

A correction and an apology

Along with the last issue of DIGIT you will have received the catalogue showing the images selected for the DIG Print exhibition 2019. One of the images selected was 'Searching for the Surf' by Michael Foley LRPS. Unfortunately, a technical gremlin crept into our system and we printed the wrong image from Michael in the catalogue. We offer our apologies to Michael for the error and are pleased to reproduce 'Searching for the Surf' below.



A searchable, cumulative contents list of previous issues is available from the Digital Imaging Group magazine page of the Group's website at: www.rps.org/DIGIT



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