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CAMERACRAFT



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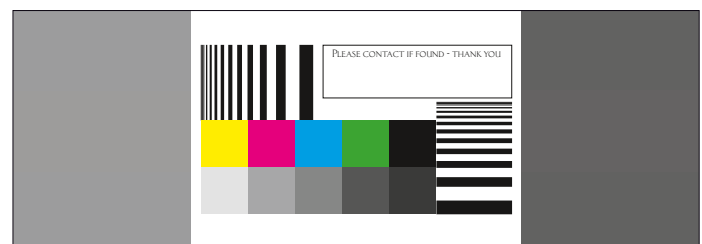
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Editorial and Publisher's Office, Subscriptions Management, Scotland
David & Shirley Kilpatrick, Icon Publications Ltd
Maxwell Place, Maxwell Lane, Kelso, Scottish Borders TD5 7BB
Tel: (+44) (0)1573 226032 Mobile: 07971 250786
email: editor@iconpublications.com

Associate Editor, USA
Gary Friedman
8661 Mossford Dr.
Huntington Beach, CA 92646
Mobile: +1 (714) 805-8468
email: gary@friedmanarchives.com

Editorial and Web Development Office, England
Richard Kilpatrick, RTK Media
102 High Street, Barwell, Leicestershire LE9 8DR
Tel: (+44) (0)1455 840300 Mobile: 07979 691965
email: richard@rtkmedia.co.uk

Cameracraft is printed by Hi-Tec Print, Units 9/10, Houghton Road, North Anston Industrial Estate, Sheffield S25 4JJ, UK. Telephone (+44) (0) 1909 568533.
Contact: enquiries@hitecprint.co.uk or see website, www.hitecprint.co.uk



AT the launch of *Cameracraft* a little over a year ago, a charter subscriber card was promised. The idea was to use a robust credit card style plastic card printing method, and personalise the cards to use as a calibration or test target. It proved impractical for several reasons, partly down to the dye-sub method used to print such cards on our likely budget, and the need for hand collation of cards into a magazine mailing. We were then hit by steep rise in international franked post charges in April 2013.

Our solution is still slightly experimental – it's a small folding card to keep with your camera with a box to write your email or phone number, *Cameracraft* information, and a fold-out inner design with focus target variable frequency bars (eliminates false phase-detect results) and a simple colour checker. It has been printed digitally by Loxley Colour using their Dynamo Press system and if colour management works properly the values will be within tolerances. By printing the 18% and 12% metering blocks using tints made from K (black ink) and CMY we hope to have created a visual white balance indicator.

– David & Shirley Kilpatrick

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Changing colours of the visual world – the palettes of a century

From a century-old book on the 'new' colour photography to a new book which analyses the many processes devised since, how to recognise them and care for them

A favourite book with collectors, *Colour Photography and Other Recent Developments of the Art of the Camera* was published by The Studio in 1908. You can expect to find complete copies (with all the prints still fixed to their pages) from around £30/\$50 and there's good value in the work by Stieglitz, Alvin Langdon Coburn, David Octavius Hill, Bernard Shaw, Gertrude Käsebier and many others. Black and white images outnumber colour vastly but this was a date when colour reproductions in a commercial book print run were expensive and technically difficult.

In contrast, for a very similar outlay of £39.95 (UK) you will be able to purchase Sylvie Pénichon's 360-page full colour volume, *Twentieth Century Colour Photographs*, published on November 11th 2013. The technical notes on processes within this book are only made more interesting when read alongside Charles Holme's commentary from a century earlier, covering some of the failed 19th century attempts to record colour.

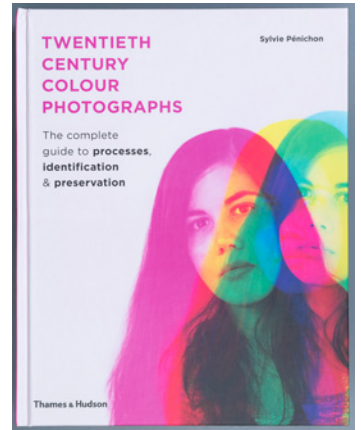
Holmes felt that the Autochrome process devised by the Lumière brothers in Lyons had achieved what was needed. It used, he recorded, four thousand RGB dyed starch grains for every square inch – and that makes a Lumière quarter-plate original, at a little over 3 x 4 inches, a 50 megapixel 'raw'. Indeed, recent digitally processed reproductions from Autochrome originals have treated the muted colours and stochastic grain structure as a kind of raw file, recovering brightness, colour and detail which transforms our view

of the past. The 1908 book does nothing but confirm the faded, soft spectacles we wear when looking back 100 years. The 2013 book in contrast presents many periods of colour photography with the most accurate possible reproduction. Sometimes the original process was not very successful and the result looks dark and desaturated, but some experiments in colour worked well enough to appear realistic today. It's interesting to see that additive, dyed-grain or printed raster films were used into the late 1950s before modern negative and slide films replaced them – and that one, in the form of Polachrome, survived up to 2002.

Often the images in both books seem surprisingly banal. The names involved are now known for collectible art – what on earth were they doing composing shots of such little merit? In 1908, just getting the image at all was a challenge. Within the next two decades technology improved and art itself entered a new era.

In the new Thames & Hudson book (ISBN 978 0 500 517192) every single colour process which can be identified is described, with examples and usually with photomicrographs of its structure. Diagrams show how the films and printing materials worked, and advice is given on how to recognise and look after them. The chronology of the major brands is included, as is advice on archival permanence. But one thing is missing. The inkjet print and the dye-sub print from digital captures don't get covered despite being 20th c. printing processes – if not *photographic* ones.

– DK



Contrasting books 105 years apart. The information on historic processes in *Twentieth Century Colour Photographs*, like the 1936 still life by Paul Outerbridge Jnr, might inspire you to experiment. The older book's landscape by Alvin Langdon Coburn, above, and portrait by J. Craig Annan, right, would be less likely to make you want to build a time machine. Note the loose, tipped-in colour plates.



The tech trend of 2013 is one which will eventually change photography beyond recognition, separating the camera's lens and sensor eye from its storage and transmission and making it a third eye for the photographer.

This is a description which already applies to many popular camera types. The GoPro Hero series – and all the copies and equivalents from bigger names who were left behind – has transformed action sports and the adventures of daily life. It is often mounted on a headband or helmet, if not on whatever vehicle is being taken to the limits of speed, and aimed to look in the same direction as the wearer's face.

Google Glasses, the future replacement for hand-held smartphone and tablet devices, will be a wearable heads-up display. The development of screens which you can see with a glance of the eye, superimposed or next to your field of vision, is going to continue and will be accompanied by extremely small very high quality lens and sensor assemblies. They could be in the bridge or on the wings of pairs of glasses.



The first high quality, reliable built-in capture via WiFi on to iPad arrived under a year ago with the Canon 6D. At the same time many amateur point and shoot cameras were offering some kind of image transfer. Then, with the Cyber-shot DSC-RX100II (above), Sony introduced a high quality (20 megapixel) pocketable camera able to transmit its live view image to remote devices. It arrived in Summer 2013, along with Apple iOS (iPhone or iPad) App software and an Android (rival platform)

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counterpart to enable remote composition and operation.

Unlike the Canon 6D operation, which offered camera setting controls but no possibility of zooming the lens, the RX100II wireless operation at up to 10 metres away gives control of the motorized zoom of the camera but not of any settings.

Then, just a month after this introduction and as I was preparing this issue, Sony released the QX100 and QX10 lens and sensor modules which have no viewing screen of their own but do include image processing and memory storage.

Packaged as a kind of lens tube which clips to a smartphone (right) to make it look almost like a camera with its screen facing the operator, the ability of the self-powered stand alone dumb camera module to roam away from its host was not given great emphasis by Sony. That was left to commentators and testers, who seemed generally more excited by the idea of a lens you can place remotely, than a tube you can clamp to your phone.

This is just the beginning. The GoPro Hero, a movie camera, can be operated in the same way and like the Sony cameras and modules stores everything data-intensive (raw files, large JPEGs and movie files) on the local SD card of the remote part. There's no attempt to use the already



slightly overloaded WiFi connection to transfer big files. The live viewing image for the Sony models refreshes in a jerky fashion, but fast enough to time most shots properly.

As the 4G mobile data network increases worldwide coverage, relaying the relatively small phone/pad resolution JPEGs to home base computers will be practical. It's already been an option using EyeFi card transmission and wireless hotspots via internet, and this continues with the new built-in WiFi camera generation. My own experience of this is that it is all limited by bandwidth, local conditions and contention (how many others are using the same connection hub at the same time). Right now there's still a long way to go.

Nevertheless, this will continue to develop and the wireless separation of file storage and viewing from a smaller capture module has too much appeal to resist. For anyone who remembers back to the days of digital cameras with detachable lens units on cables it's just a return to old ways.

Summer fruits

The summer is always a busy time for new product releases. In 2013, we have seen the arrival of much improved MicroFourThirds bodies and lenses. Panasonic's DMC-GX7 and Olympus's OM-D E-M5 both offer advanced in-body stabilised Sony 16 megapixel sensors, and high quality electronic viewfinders. The Panasonic is a rangefinder-shape design with a tilting finder similar to Konica Minolta's A2 of a decade earlier, while the Olympus is an SLR styled body, enlarged slightly and improved in ergonomics over the 2012 OM-D E-M1.

Sony's introductions included the Cyber-shot DMC-RX100II (or M2, as the model name is coded on their websites), the Cyber-shot DMC-RX1R, the NEX-5T and the Alpha 3000 (which is actually a NEX E-mount camera not one using the Alpha A-mount).

The RX100II improves the already excellent 20 megapixel sensor of the original year-old model by changing the architecture to back-illuminated CMOS. This is an odd term, as what they really mean is rear wired. Conventional CMOS has connections formed on the front surface, between the active cells. Back-illumination reverses part of the silicon sandwich so this 'wiring' is removed from the light receiving face, increasing the available area for photons to hit the mark and turn into electrons filling up the sensor cells.

The true effect seems to be around 1/3rd of a stop though with other improvements the M2 is perhaps 2/3rds of a stop more useful all round. It also has the important addition of the Multi-Function Accessory Shoe and the wireless and nearfield communication mentioned earlier. The shoe allows an expensive electronic viewfinder to be fitted. It is large relative to the RX100. It's also a little ungainly and insecure, losing the practicality of pocketing the combination.



Freeze proof – the Olympus OM-D E-M1

It is also less needed, as the rear screen of the M2 is articulated. The shoe enables external audio or microphone input, flash (without wireless), and hopefully in the near future a GPS module.

The RX1R is simply a version of the RX1 with no anti-aliasing filter. As the RX1 already had a very weak AA filter, this was unexpected but the difference is clearly visible. Any camera using contrast detection AF will be improved by omitting a filter which is designed to reduce detail contrast, and our sample certainly seemed more precise in focusing. It also revealed a wealth of tiny colour differences in textures, invisible to the eye, making the images seem more three-dimensional. It did throw up moiré patterns which could be spectacular – intrusive, colourful and hard to eliminate. So it's not an enhancement, just a different choice, which may suit landscape photographers (random textures and patterns) more than fashion or architecture (regular patterns all the time).

The Alpha 3000 is a truly odd camera. It's actually a NEX-3 in terms of shooting speed and user interface, with an Alpha 58 sensor, housed in an inflated plastic body which is mostly empty space. This makes it look like a DSLR instead of the mirrorless ILC with 18mm mount-to-sensor distance it actually is. The mount is pushed forward to make it look more conventional, and a fake prism housing shape hides a very tiny electronic viewfinder chip with a powerful ocular. This 1/5th inch size display is only 201,600 dots and despite a 21mm eyepoint the hard plastic surrounded eyepiece requires precise eye centering. The display will look blurred just a single click away from the optimum dioptré setting. Compared to this, the 933,000 pixel EVF of the Konica Minolta A2 from almost 10 years ago is large, clear and easily viewed.

The A3000 is remarkably cheap, undercutting all other comparable DSLRs and most mirrorless rivals when



True innovation – Sigma's latest lenses can be sent back to the maker for the mount to be changed to a different system. Marketing innovation – the Alpha 3000, right, is a NEX in a plastic sumo suit.



supplied with its standard black 18-55mm f/3.5-5.6 SEL lens. It has the Multi Function Accessory shoe, but loses audio jacks, HDMI out and almost all other ports. There is a USB 2 connector which charges the NEX-type battery in camera, and can accept a remote release cable. Other than that, the only openings on the camera are the SD/MSPro card slot under a simple hinged flap, the battery cover, and an unexpectedly high precision metal E-bayonet lens mount.

With no on-sensor phase detection pixels, plain contrast detect focus, no control wheels and no tilting screen (just a very low resolution 230,000 dot 3" fixed LCD) this is camera pared down to the minimum but made to look big. In fact, it does have all the full control you could need, if it's a little slow to get at, and the 20 megapixel sensor performs well with very accurate focusing and exposure during live view and shooting. It's

acceptable across its full 'auto' ISO range of 100-3200 for all purposes, and for personal use the settings up to EI16,000 are fine.

But this is not some great change of direction or harbinger of the end of the Alpha A mount, or precursor of a kind of Alpha 99 full framer cross with an E-mount. It's a budget solution to catch a new type of upgrading user. If you can put up with the awful viewfinder it is also a very lightweight camera which is secure in larger hands.

Nikon introduced the Nikon 1 AW1, effectively not just a new 1-system camera but a new system, sealed for 15m diving with subaqua grade lenses and a double O-ring mount (partially compatible with the existing system). It's the 21st century Nikonos, in a very real sense. With WiFi, underwater flash to come, and all the qualities of the GoPro blended with the best of a compact interchangeable lens

system it could be the new standard for reef diving.

Canon has pushed price and specification barriers with the EOS 700D and 70D, but has not had the change within its APS-C system yet that the introduction of the 6D brought to the full frame world.

Samsung has done the expected, and blended the Galaxy Camera (huge screen, 4G-equipped model for the iPhone generation) with the NX system to create the Galaxy NX, a mirrorless system camera with a 4.8" touch screen and Android operating system. In some ways, it looks like an Alpha 3000 done properly, on steroids. But it costs four times the price and has a very different target market!

Sigma has made a breakthrough announcement, which may prove one day to be the most important of all the summer's news – when redesigning their lenses last year to create the new Art and Sport ranges, they standardised the front assemblies with their focus motor and aperture mechanisms, using a range of different rear assemblies to suit each camera make. Because they did this, they can now offer a service to change any of these new lenses in future between camera mounts. You can buy Nikon fit now, and if you move to Canon next year, just get the lens mounts changed.

This is not a user procedure, the lens must go away, but there have been interchangeable mount systems in the past and maybe one is possible again now that all systems use purely electronic control. As contrast detect focusing or phase-detect on sensor takes over from traditional flapping mirrors and AF modules, there will be room for any lens to fit any camera body. There could even be a camera body with a choice of system mounts or user changeable parts. Sigma has pointed the way ahead many times and it looks as if they have done so again.

– DK



REFLECTION

REFLECTION

Symmetry and pattern are triggers to visual stimulation that may have their origins millions of years ago. The human brain developed to keep humans alive and reproducing, and the way the brain interprets what our eyes see dominates its processing-power.

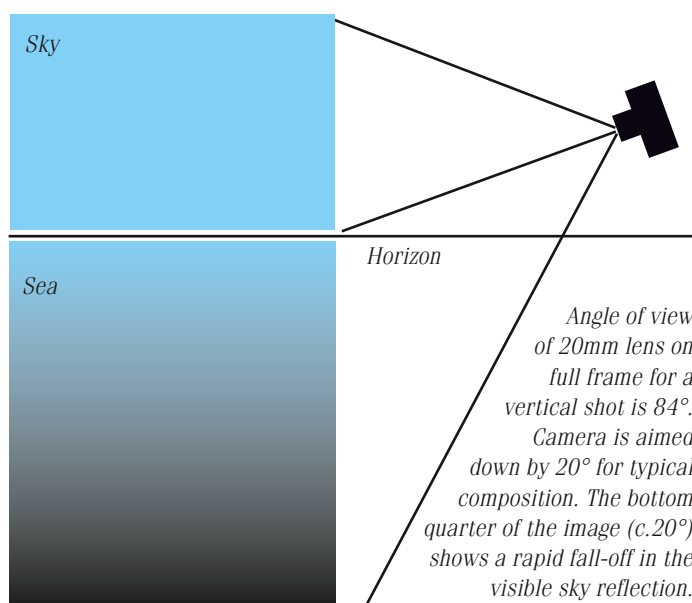
It's easy to understand why we are drawn to symmetry. We are constructed on one axis of symmetry and share that quality with most of the visible living world. Vertebrate or not, animal life is built the same way and most plants even if they have irregular patterns of growth have some symmetry overall and a great deal in the detail of leaves, flowers, and fruit.

The simplest left half, right half reflected symmetry is one of the clues we have that what we see is either alive or has been made by a living being. In turn it could be food, a threat, or even a mate.

We recognise shapes and patterns for similar reasons and can tell at a glance when forms are repeated within our field of view, even if the size and orientation of the shape is changed. We use pattern, form and textures to help our binocular vision gauge distance and in two-dimensional photography these things do even more of the work.

Our constructed environment uses symmetry and pattern constantly to provide spaces where humans can orient themselves and navigate confidently, whether it's as simple as a street with two lanes and property each side or a room where all the

by David Kilpatrick



The angles, the surface, and the physics

I set out to study the gradation of reflections in water (*see facing page*) and how the angle of incidence and reflection combines with sky polarisation and lens angle of view. It took no time at all to become tangled up in some complex math, which does not need repeating even if I eventually manage to understand it.

However, it's simple enough in practice. The angle between your camera and the point on water (or a similar surface) where you want to have strong reflected sky light or a clearly mirrored subject needs to be 37° or less. Using an ultrawide lens for a vertical composition with the horizon near the top, you may have angles all the way to 90° (e.g. your own feet at the bottom of the picture); between 37° and 90° the reflection will reduce from around 50% brightness to a mere trace, at which point you'll be seeing through or into the water. The best lens angles for a good reflection with this kind of composition are 21-24mm equivalent for horizontal shots, 28-35mm equivalent for vertical. Anything wider, like a 12mm or a fisheye, will always have the brightest reflections or reflected light restricted to a smaller relative zone.

I also found when looking for facts that very cold water with its higher refractive index should reflect more light over a slightly wider angle than warmer water, and that blue sky reflects more efficiently than warmer tones like red sunset sky. Salt water will also show stronger reflections. So – arctic and antarctic seas make better reflection shots than heated swimming pools. I guess you knew that already. Science confirms instinct, but it's probably such a small effect that other factors overwhelm it.

doors and windows are similar in size and position so we know where to expect a door handle.

Reflection is one of the ways we create predictable design, left and right halves which mirror each other. We are so used to this that the brain tries to see reflections as part of the item reflected, even if they are multiple as in a kaleidoscope. We see the overall pattern and shape almost as a single item.

The same thing happens with reflections in photographs even when they are not closely linked to the item reflected. We connect them. Cartier-Bresson's man jumping over a puddle has a reflected leg which is separated, but we see the jumper and the reflection as linked. If you move a reflection by retouching an image, or try to fake a reflection and get it in the wrong place or make it too perfect a mirror image, it's immediately obvious to most viewers.

We are used to the slight asymmetry of genuine reflections, their uneven qualities caused by imperfect reflectors, and the different relative viewpoint of the camera unless it is placed right on the reflecting surface. You can see this on the facing page; for the top shot, the camera is inches above the water, for the bottom on it's at standing height on a raised river bank and the vertical scale of the reflected bank and cows is about two-thirds of the height of the original, from the water's edge. To get maximum reflection from water or a smooth surface, get the



Most photographers use wide-angle lenses for scenes like Blackpool Central Pier, above. The 16mm focal length on APS-C allows a small area of water (left behind by the tide) to become a huge foreground, and the sky at this angle the polarised light content causes a roughly 50% loss in reflected brightness at around 53° from the Normal, or at 37° above the horizon, creating a natural gradation. To secure reflections which do not vignette this way, work with a longer lens, as below, with 200mm also on APS-C giving an almost 100% brightness for the reflected sky (DK).



camera as close to the surface as possible.

As my diagram on the previous page shows, there's an angle where reflections of light or actual objects begin to look weaker in water, glass or many common surfaces. It's around 50-53° from the vertical, meaning that if you find a viewpoint which means you aim your camera down by more than 40° you won't see much reflection. If there was a high diving board at each of a swimming pool, it would be pointless to climb one end thinking you could get a picture of the diver at the other end mirrored perfectly in the water. Another example would be a boat race, if you want a shot with a boat and rowing crew reflected in the water, get right down on the riverbank don't find a viewpoint on a bridge.

You do get some mirror reflection at any angle, even 90° head-on to a water surface – otherwise Narcissus couldn't have seen his reflection in a pool, and you couldn't tell if there was water in a well or tank. Water would be rather more dangerous otherwise.

Polarisation & angle

The angle beyond which reflections fall off exists because it's the point at which all directions of polarisation within light are transmitted through the medium (like water) and not reflected. Around this angle, there's a graded zone where one direction of polarisation is reflected only, either fully or partially. This is the visible reflection which you can 'dial out' by using a polariser.

A very similar gradation (a zone starting around 60° from the sun's position) applies to polarised light in the sky. When you combine this with the polarising effect of reflection off a specular surface (mirror-like, but not a silvered or polished metal true mirror) you get the very strong graded tones often found in sea and lake views. Use a polariser with care, as your attempt to deepen the sky will result in nearly black water. This one condition where graduated ND



Using evening light and shade, a window in Venice blends the Rialto Bridge view with the shop display (Alpha 900, 28-75mm f2.8 at 28mm, David Kilpatrick). Below: the mirror wall of a bus stop at the Pile Gate of Dubrovnik puts two views into one (Alpha 580, Sigma 18-250mm OS at 40mm, Shirley Kilpatrick).



filters remain unchallenged, and it's no surprise that most landscape photographers who seek out dawn and sunset images over the sea carry both polarising and neutral density filters, learning how to apply these effectively and emphasise natural effects.

Part of the trick is to realise that polarisation of the sky itself is at the minimum at 0° (aiming at the sun, or sunset position). You therefore get the strongest overall reflection over the greatest angle of view when you shoot into the sun, use a sunset sky. Car photographers head for west or east coast beaches in early Spring or Autumn to use the intense, broad reflections created. Shoot with the sun to your left or right, even if it has gone down, and the zonal polarisation of clear sky light will tend to produce a more sharply fading reflection in water and less attractive effects on polished paintwork. Hazy sky is less subject, to polarisation and on an overcast day or with low cloud orientation of the camera is not so important.

You'll recognise all these conditions when you see them. It's not necessary to carry a compass. Use your eyes!

A polariser will remove reflections from water, polished wood, car paintwork and similar surfaces most effectively when the camera is around 30-40° to the surface. Head on (90°) it has no effect but there will not be any reflections except faint 'true mirror' images – like the photographer seen in the glass of the painting being copied (solution, use a shift lens and move to one side). At very acute angles to the surface, around 0° to 10°, a polariser will not remove reflections fully because more of the component light is reflected, including all directions of polarisation. So, if you are shooting that polished wooden antique and want to see the quality of the wood, set the camera up around 30-40° to the table top using crossed linear polarisers on the main light and the camera lens. That's how auction house

studios do it – and why they often own the tallest tripods and a stepladder for the photographer.

Light vs dark ground

Another factor influencing reflections is the colour of the surface as perceived. A very deep pool can appear to be completely black especially if it's in shade, but the reflected view is fully lit. My photograph of the 'bottomless lake' Avythos (abyss) in the heart of Kefalonia shows this (*right*). It was not a comfortable place to visit, with rickety access boards and marshy margins to an inky black depth of clear water. The reflection could have been made stronger by getting the camera close to water level but that was out of the question.

In contrast a shallow light blue tiled swimming pool in overhead sunshine is never going to show attractive reflections. You just need to be aware of these factors. They are the reasons why puddles on black-top tarmac or cobbled streets make superb reflections, why the murky waters of Venice are such a great hunting-ground, and why reflections of floodlit caverns in the often dark waters underground are generally dramatic and successful.

When water or glass is clear, and there's sufficient



The black depths of Avythos interact with a polarised sky angle. Below, a 20mm lens and downward angle cut through foreground reflections at Castle Stalker for the 'rock pool effect' of a transparent foreground.

light, a complex mix of the brightness of the reflected scene and the transmitted scene can create a double exposure effect. This may be graded according to the angle effect already described, the reflected view dominating at

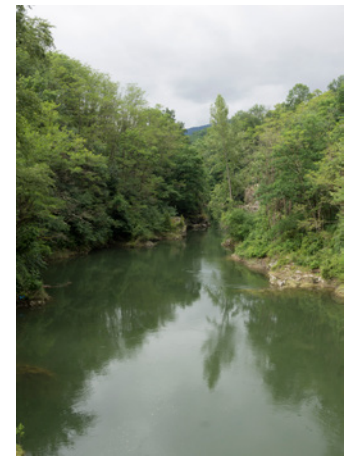
the horizon but fading to reveal a clear image under foreground water. This 'rock pool effect' with ultrawide lenses can show the foreground and distance as two halves, almost separate pictures. A reflection seen in a window from outside can be

wiped out when someone turns on the lights indoors. Similarly, windows with no apparent reflection will acquire one when street lighting comes on.

Boosting reflection

A polariser when turned through 90° from the position where it removes reflections will have the effect of strengthening them instead. You can also boost reflections by making sure the camera is within the critical 35-40° to the surface, or as close as you can physically get it. With careful use of focus and aperture settings a car roof can become a believable substitute for a lake.

In general scenes, the Clarity control found in raw converters like *Adobe Camera Raw/Lightroom* or *C1 Pro* is designed to have a contrast-boosting effect on lower contrast detail. It can be used to make faint reflections look much stronger – see the comparison below.



Valley of L'Ariège, as seen, above; below, with Clarity applied to maximum in Adobe Camera Raw conversion emphasising the reflection clearly. By Shirley Kilpatrick.



Eliminating reflection

A polarising filter is not always the best way to cut reflections. In the studio, large black backcloths or a completely black-painted room make a good start. You can then add reflections by introducing white panels and lights. Polarising filters can be added to lights instead of, or as well as, to the camera lens. This is a very expensive option especially if you use large diffused light shapers; I checked on-line prices for Rosco and Lee polarisers. A 12 x 17" sheet is around \$50 (or fifty pounds or euros, too, as usual).

When you need to shoot through a window, a coat or a scarf can save the day. Place the lens as close as possible, then wrap the garment round to seal off light, in contact with the glass. Once, flexible rubber lens hoods were popular, and these are great tools for shooting into aquariums, vivariums or glass fronted enclosures. Zoom lenses with petal lens hoods have replaced them, and these hoods are useless for preventing reflections. I'm now thinking that a flexible rubber hood would be a good addition to my kit. They are still around and nothing like the cost of the hoods which Canon, Olympus and others do not supply with their lenses!

Mirrors

Mirror surfaces include polished metal and silvered glass, which owes its quality to the metallic coating being in effect a polished surface.

You can't eliminate reflections in true mirrors with a polariser, so whatever you see in chrome car trim, brass door furniture or shiny jewellery will be what the camera sees. If the surface is convex, it will act like a wide angle lens and will show the photographer and camera. In the studio it may also show lights, stands and general mess.

The first rule is that the narrower the lens angle of view you use to frame a reflective object, the smaller the area of



Two examples where reflections have been observed with a creative eye – top, *Stater*, by Christy Hicks; lower, by Gary Friedman, printed in reverse from a Tri-X negative to 're-mirror' the words.

reflected surroundings. This depends on how much of the radius of the curved surface you are including. It doesn't matter how far away you get from a mirror sphere, it will always show much the same reflection – even if you are a smaller part of it. Most items are not complete spheres so using a longer lens helps. In



the studio, it is still necessary to have very large white surfaces (whether soft lighting, or reflectors, or background paper) even for small jewellery. Light tents, infinity curves and coves are designed to solve this problem by encasing the subject in white.

The last resort is to use 'milk', a studio aerosol spray



Using the digital centre marking of a live view screen for copy stand alignment with a mirror tile. This also works with EVFs.

to dull the product with a matt layer. It's a poor solution and with the advent of high resolution digital photography every droplet of this stuff becomes visible.

Framed flat mirrors are photographed at an angle, again with a long lens, so that a reflection of some neutral surface is seen in the glass. This can be background paper lit with some gradation to make it look more realistic. Out of focus detail can also be used. A shift lens can be used to keep the frame apparently head-on, but position the camera to one side so its reflection is not visible. This technique is also used for photographing glass framed pictures copied in-situ.

For accurate copying, and setting up to test lenses, a mirror tile is all you need to get your camera perfectly aligned if it has an EVF or a live view screen provided with a central mark or a grid. With an optical viewfinder SLR, this method only works if the focusing screen is exactly centred (very few are). The digitally generated marks on a live view screen are perfectly centred, removing the need for a once-essential accessory like the ZigAlign.

The technique is simple – fix or lay the mirror tile centred on the flat surface to be photographed, position the camera as close to centre as you can by measuring tripod height, and focus on the reflection of your camera lens in the mirror tile. When the centre of your lens is exactly on the centre mark of your EVF or live view screen, your camera is parallel to the subject plane.

My copy-stand has a mirror tile sitting ready and it's how I set up for straight copies of prints or books. It's little harder with a chart on a wall, or a hanging painting, but not impossible. One solution if you can't mount a mirror on your original is to mount the item on a mirror after aligning the camera. You can also use the glass of a framed picture this way by aiming the lights at the camera first, to get a clear reflection for alignment.



Above – a great use of a reflection in an environmental portrait of writer George Saunders, taken by New York Times photographer Damon Winter, which appeared after Saunders delivered a memorable address to graduates at Syracuse University. Below – the asymmetry of reflections and their perspective makes real world reflections look very different from Photoshop created imitations. In this shot by Shirley Kilpatrick, the positions of the reflected birds follow a diverging wide-angle vanishing point, and their shapes are seen from underneath, dark against a bright sky instead of light against the landscape or water.



Vanishing points

When using a wide-angle lens aimed down at a reflective surface (lake, wet street, etc) the reflection does not mirror the perspective distortion or vanishing point of the original. Instead, it continues the lines of perspective. These will in turn oppose the perspective grid of the surface (ground level) creating a complex visual structure. It's one reason why realistic reflections are so hard to fake in *Photoshop* or CGI. A reflection is always seen as if the viewpoint (camera position) was below or beyond the reflecting surface. Reflections can thus give you a view you can not 'see' from where you stand. A mirror in the studio, or any room setting, can enable a better angle and distance from your subject. It can even enable two views as every good wedding photographer knows. All you have to do is look.



DISTORTED VISIONS

Reflections have long been a favourite theme for my photography. The main series shown here was taken when I visited Venice to create pictures that pay respect to the French Impressionist painters. One of the greatest compliments paid, after I showed them, was the comment "I thought it was not possible to take different photos of Venice"!

Using medium to long lenses allows one to exclude any vestige of the original subject but blend its colour, texture and form. I had an idea where I wanted to photograph, in the City and on my favourite islands of Murano and Burano where I knew colour abounds. My objective was to capture reflected colour in the waters

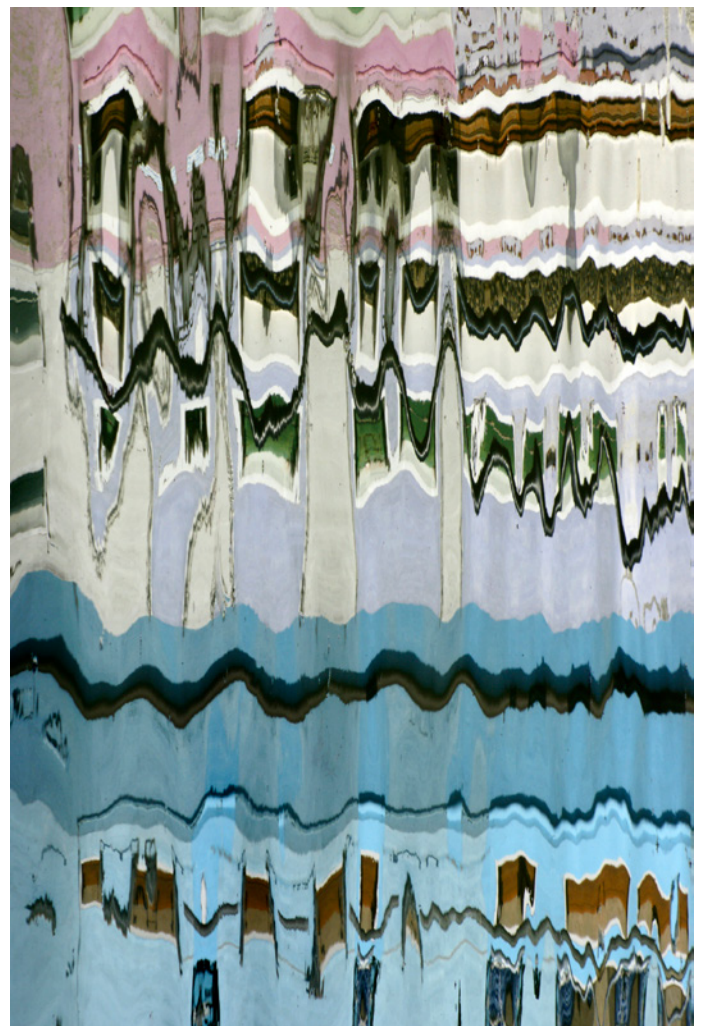


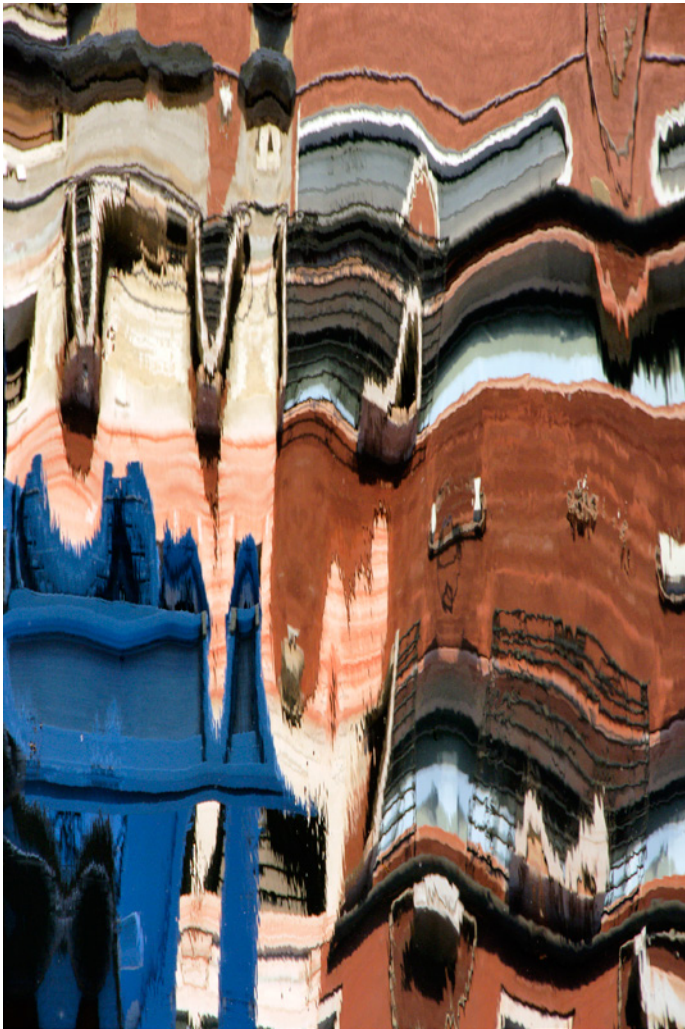
A whole world – reflections in a tuba, though not in Venice

of the canals, and at a time when the surface was fairly still. I still needed to use fast shutter speeds to freeze movement, and usually medium apertures so that there was a degree of sharpness across the frame.

Early morning was my favourite time of day, when the water is flatter and cleaner. Locals going to work on boats disturbed the reflections, but as the water surface calmed down patterns appeared. I had to watch that shadows did not intrude. I often needed to use manual focus to keep the reflection sharp rather than the water surface itself, and needed to be very aware of where shadows were falling.

– Peter Karry





SPRINGS ETERNAL



Paradise Found, Ocala National Forest, 2003

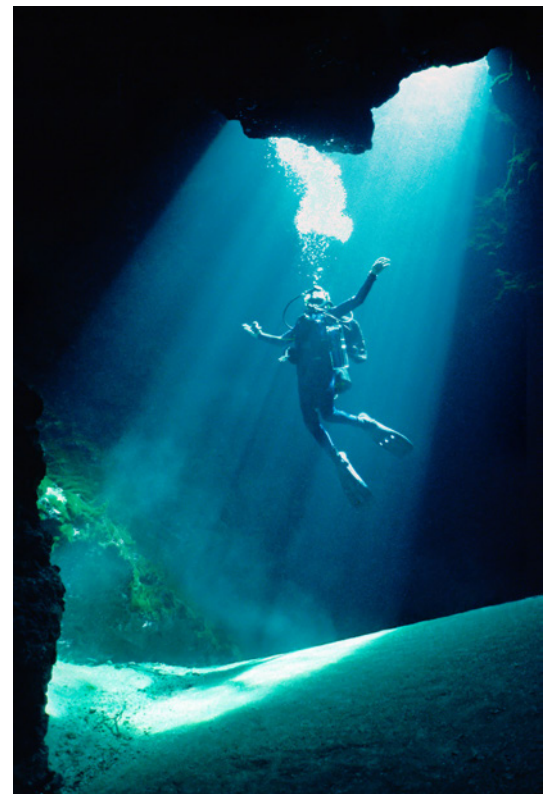
Many places have beautiful beaches, bays, rivers and lakes but Florida alone is home to the world's largest and most impressive collection of freshwater springs. But 500 years after the arrival of Ponce de Léon on his mythic search for the Fountain of Youth, our real magic fountains are imperiled due to pollution, neglect and the groundwater demands of a thirsty state.

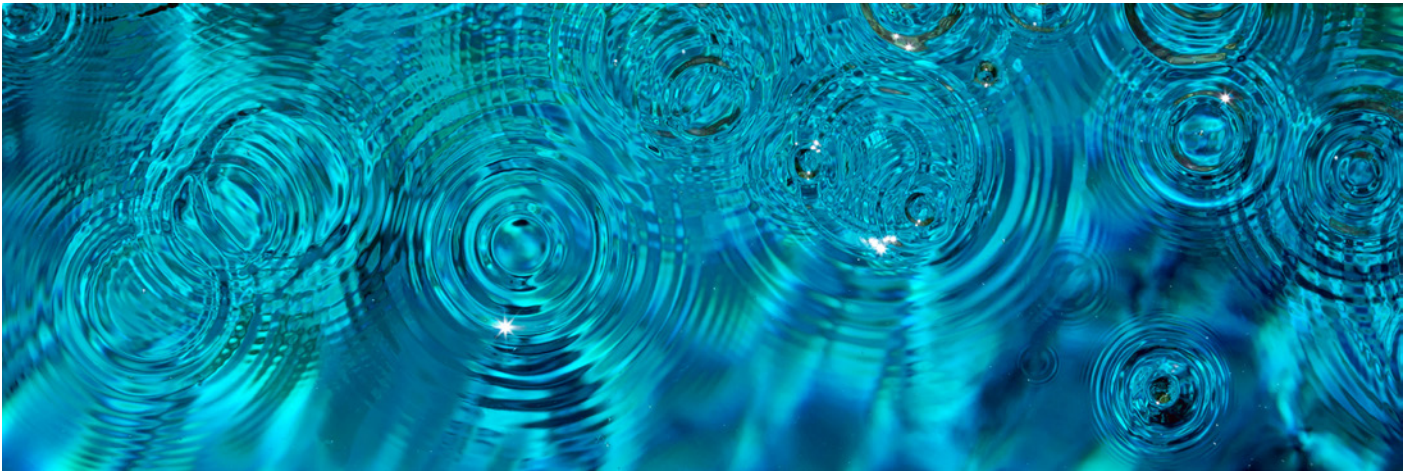
Some have stopped flowing and many are choked with algae, their blue waters turning murky and green. Once a source of awe, our springs are now a source of deep concern.

For many years I've been chasing the light in my search for the soul of Florida and I was content to shoot the beauty you see here, which reminds people why we fell in love with Florida in the first place. I finally woke up a couple of years ago and realized my pretty pictures weren't changing anything and I felt an ethical imperative to show the flip side of the story as well. I partnered with Dr Lesley Gamble, a University of Florida art history professor, and graphic designer Rick Kilby to create the Springs Eternal Project.

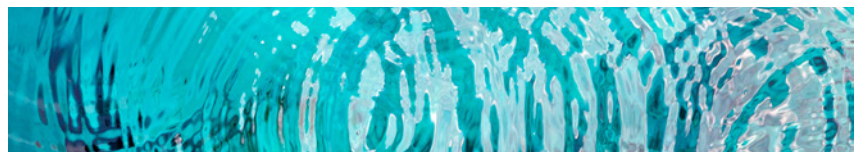
Our exhibition *Springs Eternal: Florida's Fragile Fountains of Youth* can be seen at the Florida Museum of Natural History until December 15th 2013 (see *Déjà View*, page 194).

— John Moran





This page – all images taken at Gilchrist Blue Springs, 2013

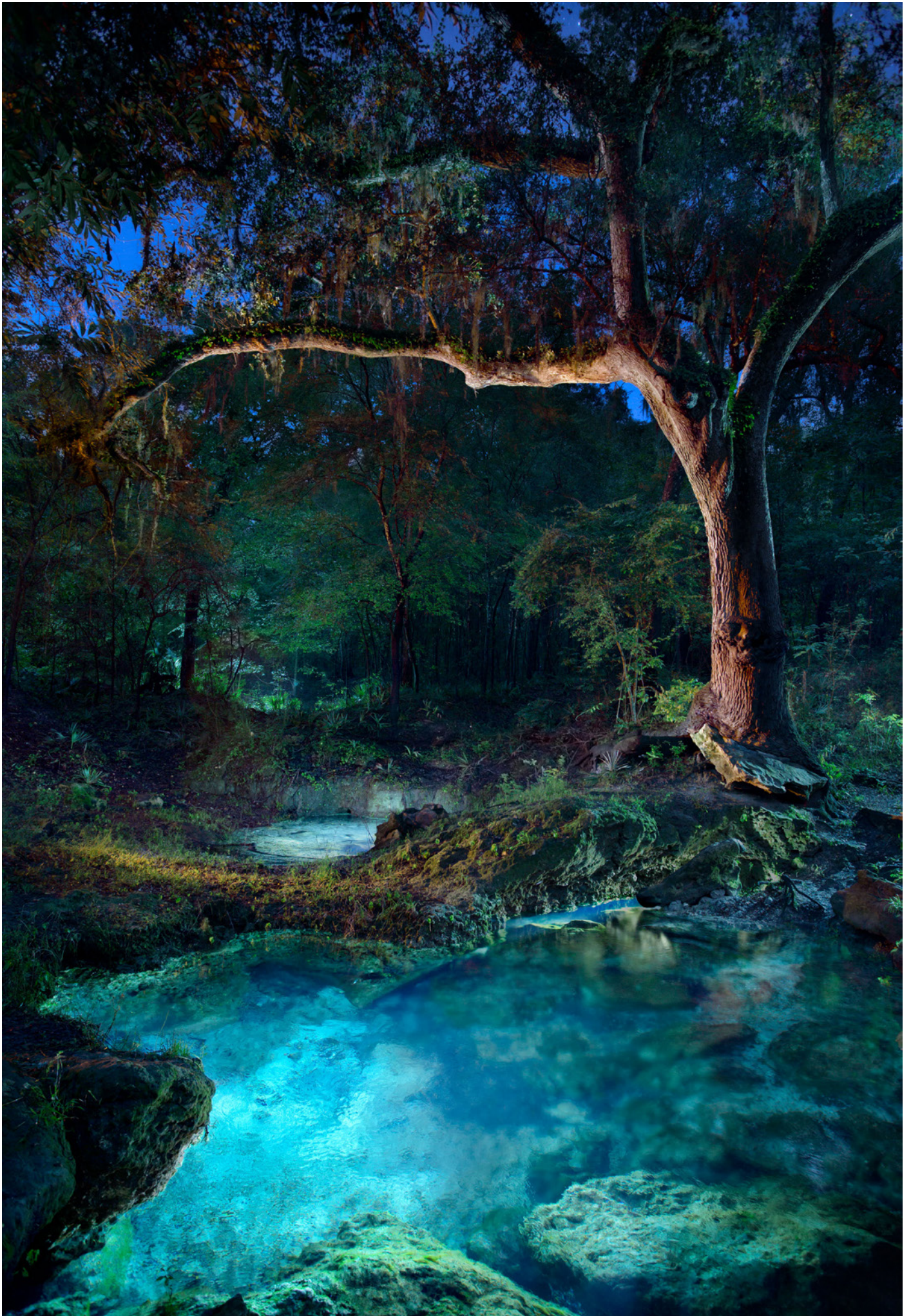




This page – Top: Florida manatees, Crystal River National Wildlife Refuge in 2012. Above: Cypress Springs, underwater tree, Florida panhandle 2012. Right: Ginnie Springs in 1997. Facing page – Oasis in the Dark, Suwannee River. Photo by John Moran and David Moynahan.

John Moran now shoots with several Canon cameras, including the 5D MkIII, having migrated to Canon from 2007 on after more than 30 years using Nikon. The column of fish featured on the cover, the bare tree above, turtles and manatees, were all made with a Nikon D200 in a Subal housing. In the case of the fish, manatees and turtles, a pair of Inon flashes was used. The small image on page 190 of the diver in a shaft of light (Ichetucknee Springs State Park, 1995) was taken with a Nikonos V and 15mm lens, a combination also used for the Déjà View images on page 194.





DÉJÀ VIEW



THE PACE OF CHANGE FOR FLORIDA'S FRESHWATER SPRINGS

John Moran has taken many underwater and landscape images of the Florida freshwater springs, documenting the changes over three decades. Above, he shows the decline in the state of one spring, Devil's Eye in Ichetucknee State Park, over a period of just over 10 years from 1995 (left) to 2006 (right).

"*Springs Eternal* pairs photos from my 30-year archive, and historical photos from state archives, with contemporary views to create a then-and-now narrative of Florida's springs and the changes we have seen due to long-term rainfall deficit, groundwater overpumping, pollution and neglect. This exhibit is part of the larger Springs Eternal Project", he says, "co-created with

University of Florida art history professor Lesley Gamble.

"Reaching beyond museum walls, Dr Gamble's website – SpringsEternalProject.org – and 'Urban Aquifer' bus project both lend additional public engagement. This includes

images displayed on a fleet of Regional Transit System buses bringing visions of Florida's stunning springs to the streets of Gainesville.

"Pictures have a way of reaching people in ways that words alone can not.

This project seeks to inspire public participation in the increasingly urgent statewide conversation about the fundamental role of water in defining Florida's future.

"The organisers are seeking sponsor funding now to finance Springs Eternal, a project of Alachua Conservation Trust, and support the production, materials, research and fieldwork expenses incurred in creating it."

Donations are invited towards the project and you can read more about it, and see more photographs by John and his co-workers, by visiting both the project website and:

www.johnmoranphoto.com where there is an image gallery featuring many more views, and downloadable PDF documents.



Springs Eternal exhibit (photo: Jon M. Fletcher), Florida Museum of Natural History, Gainesville. Clerestory window photo by Dr Lesley Gamble.



CAMERACRAFT PORTFOLIO

No 5

STEVEN TAYLOR



LAKELAND SILVER



Previous page: The Screens at West Water, 2005. Gandolfi 5x4, 150mm lens, FP4 Plus in ID11. Above: Jardin des Tuileries, Paris, 2007. OM4Ti, 35mm, Tri-X in Rodinal. Below: Kendal, 2007. OM4Ti, 35mm, Tri-X in Rodinal.





Above: Rusland Trees, 2010. OM4Ti, 24mm lens, Tri-X in Rodinal. Below: Rusland Sunset, 2009. OM4Ti, 35mm, Tri-X in Rodinal. Next page: Trees Dancing, 2004. Gandolfi 5x4, 150mm, FP4 Plus in ID11.









Above: Young Trees in Snow, 2010, OM4Ti, 35mm, Tri X in Rodinal. Below: Grizedale Forest 1, 2011. OM4Ti, 85mm, HP5 Plus in Rodinal.





*Lowestoft, 2012, OM4Ti, 35mm lens, red filter, Kentmere 400 in Rodinal.
All scanned from prints on Ilford Multigrade FB paper.*

STEVEN TAYLOR - A WORKING PROFESSIONAL WITH A MISSION TO EDUCATE

In the last quarter of the 20th century Britain was home to a fine art monochrome photographers whose influence can still be seen in the way we create and see images today.

Fay Godwin, Thomas Joshua Cooper, John Blakemore, Paul Hill and their many students and co-workers redefined the British landscape by moving away from the predictable search for pictorial conditions and postcard composition. Adverse light, damaged landscapes, forgotten details and unprecedented use of both dark and light space overturned the camera club identity of black and white.

A group of Midlands colleges – once polytechnic or art colleges, today with university status – led the way. Trent-Derby and Leicester de Montfort fostered talents who in turn kept monochrome silver imaging alive and dynamically developing long after all mainstream media had switched to colour. At the same time, the print and the printer both became hero. Darkroom printers from the 1970s to 2000s had the reputations and influence we now only see with chefs of Michelin star restaurants. They had their own books and even their own products, like Gene Nocon's revolutionary electronic timer able to store and repeat the many steps of a dodged and burned hand print.

Steven Taylor learned his photography in this environment, alongside contemporaries like Tim Rudman. He has been making images and studying photography for many years, and has been recognised in his adopted landscape of the South Lakes, with a period as photographer in residence for the Brewery Arts Centre in Kendal followed by a commercial career running a successful studio and gallery in Bowness-on-Windermere.

Like most professionals, he undertakes portraits, weddings and commercial assignments. In 2013, he made the move to a new Grizedale Forest visitor centre at the western end of Windermere where he has been able to create a gallery and darkroom complex to bring 'analogue' film imaging to the public.

This is The Alchemist's Workshop and the subject of a separate article in this edition, *Cameracraft* No 5.

The gallery shows his art prints which are bought by collectors but also by visitors for the walls of their homes and offices. The



Conceptual Portraiture in the woods of Grizedale Forest, above – one of the more enigmatic examples from recent work. Below, a very traditional documentary wedding image which works well in b&w.



value of darkroom silver prints has increased now that many limited editions are identical inkjet (giclée) runs rather than unique individual hand-printed versions. It is also the place to meet and discuss his wedding and portrait photography. This is not the same type of photography you'll see in most high street studio windows. The portraits are now 'conceptual' and can best be compared with corporate pioneers like Brian Griffin. Steven uses the forest environment in the same way Griffin used the interiors and architecture of corporate space. His portrait sitters interact with the woodland and its often low-key lighting.

He says – "The sitter becomes a collaborator in the creative process and often very surreal images are made. I hand print the results on beautiful Ilford silver gelatin fine art papers: they are processed to strict archival standards, designed to be investments in family history. You can let your imagination run wild or just smile sweetly if you prefer."

In the darkroom he now has a range of enlargers from 35mm to 5 x 4" and teaches traditional photography with the support of

the Harman Industries' Ilford and Kentmere brands of British-made traditional silver halide film and printing papers. It is set up for small group workshops as well as individual use.

Steven and his son Josh Taylor (who took the portrait, top) have built an enviable reputation for their documentary approach to wedding photography and travel worldwide to cover weddings. They do of course also work in colour and use digital equipment, but the true value of their work lies in keeping silver film photography alive for the future.

www.thealchemistsworkshop.co.uk



THE GOLDEN LAND

Marc Pecquet

Five years ago, as a young retiree at the grand age of 60, I decided I should find volunteer work in emerging markets and give back a little; as some kind friends told me, a nice way to ask forgiveness for a career in banking. I was lucky enough to find engagements with NGOs operating in Ethiopia, Libya (!) and Myanmar.

When it was confirmed late last year that I had been selected to participate in a three to six month volunteer mission in Myanmar – or Burma as most Americans and British still call the Golden Land – starting in January 2013, I immediately set on doing two things; contact my pen pal Gary Friedman for any advice he could give and order the Alpha 99, which had just gone on sale.

Gary's advice I followed to the letter; I created a blog and decided I would regularly



Two Myanmar pagoda sunsets: above, the Golden Rock stupa of Kyaiktiyo; below, Mawlamyine, a long shot with the 70-400mm G.

write short pieces and load my best shots: the blog is out there and you can visit it on marcpecquet.com.

The tough question was "what equipment to bring?" I have a Sony Alpha 900 and Alpha 99, and quite a number of the old Minolta lenses (I became addicted in the mid

1980s when the Maxxum 9000 came out) and I decided to bring along four prime lenses and four zooms. Add to this vertical grips for both bodies, three flash, extra batteries, a laptop and two hard disks plus two suitcases for a six month stay and my golf equipment... the Burmese love golf! And yes,

my favorite airline carries golf bags free of charge. You can start imagining what I looked like when I started the journey for the airport.

No problem at the check in counter; there things actually were a breeze and I was left with my large backpack, a camera waist belt and another large waist belt in which I like to carry my Sony 70-400mm (one in front, the other in back). Check in completed, I decided to stay as long as possible with my wife who would only join me later in the trip for a three-week stay in Burma. At the last possible moment I headed for the passport control... and there I was stopped because it is obvious that I had too much carry on. I was told that I couldn't board... imagine the cold sweat, butterflies and other sensations one has when one learns one can't travel with one's favorite toys. I had five



minutes to re-jig my carry on and leave behind half my stuff. My wife found this funny – I was on the verge of a nervous breakdown!

So, in front of all passengers going through passport control, I got on all fours unpacking my gear and having to make a snap decision on what to take and leave behind. There was absolutely no rationale for my decision, but this is what I took:

The computer and external drives (I was going there to work, right?), A99 with grip (I can't resist new toys), Minolta 28-70mm *f*2.8 G, Sigma 15-30mm *f*3.5-4.5 EX Aspherical (which I ended up NEVER using), Sony 70-400mm and the small HVL-F20 flash (which I also never used) as well as my seven batteries (my wife promised to bring me the Minolta 85mm *f*1.4 G when she would join me). With this basic equipment, I took over 10,000 shots in three months and learned to love the A99.

Human interest

My firm intention during this second trip to Burma was to focus on the people; on a previous journey before the advent of digital, I had taken but few shots of individuals and had been criticized for this by family and friends. So let me tell you about the experience of photographing people in Myanmar:

The tourists are a sight for the Burmese as the country opens up and it is easy to establish contact both with adults and kids: eye contact, a smile, a nod of the head and a try at pronouncing "Mingalaba" ("Hello" in Burmese) will get you off to a good start. I discovered that my passport to communicating with the people of Myanmar is a simple smile. In Myanmar, a smile gets a response, guaranteed! Child, adult, young, old, male, female – all will respond with a friendly smile and on many occasions, try to engage in a timid conversation.

Pessimists will say they are trying to sell you something such as food or an artifact. Sure in many cases,



*Above: fisherman at Inle, Below: playing the fast-moving hand and foot ball game Chinlon in the street (taken with the 85mm *f*1.4).*



particularly if you are in the market, they will try their luck. A kindly "negative" smile will generally get you a burst of laughter and more smiles. My take is that the people of this wonderful country have been isolated from foreign influence for so long that their curiosity is as keen as ours. They want to reach out, just as we do. For several generations they had been told not to communicate with foreigners and suddenly we are officially made welcome by the government. And tell them you are American and you will get a huge smile and a thumb up for Obama in

response. I can't recall when I had such a welcome as an American!

Then show your camera and ask if you can take their picture (I don't know how to say that, but "Mingalaba" – a pause – "photo?" appears to do the trick). Take a first hurried shot; typically that won't get you a smile, just a stare into the camera. Turn it around and show their portrait (digital is fantastic for this!); that's when they start laughing and you get all their attention. Take more shots and you are bound to get the coolest results; and show them, they love it!

The Yangon Photography Club created a couple of months ago by photographer Chris James White – look them both up on internet and you will see some really nice shots – recommends, if you live there and have a printer, that you track your subjects down and give them a print; in rural Myanmar, it is likely that it will be the first picture they get of themselves other than the typical ID mug shot with a frown and non-smiley face!).

This by the way, works wonderfully well with monks of all ages (don't try with the one in the middle of his prayer who is about to levitate – just be discreet). Don't do what I saw this horrible tourist do: he squatted in front of a monk in the middle of prayer with a noisy DSLR and took at least ten rifle-sounding shots with a humongous flash triggered each time. The guy's wife didn't seem too proud.

Also, as a volunteer sharing the professional knowledge I have gained in forty years of experience, I have the acute sense that the Myanmar people I worked with and met appreciate any help we can offer; it encourages me to give and do more.

Will the Myanmar people's wonderful attitude to foreigners last for long? Probably not as the country develops in the next five years and this is the reason I want to go back soon. Well, also maybe because I'll soon be too old!

A final note; of the 10,000 shots I took in Myanmar, I quickly threw away 3,000 (out of focus, no interest, duplicates). It took me a few weeks to select the nicest 2,000, then three months to bring this to 500 – which can all be viewed in my book *Myanmar, a Golden Land Journey* which you can view in full here:

<http://www.blurb.com/books/4504515>

However, choosing a selection for this article was difficult, and the final choice probably isn't the right one – so please view the book on internet (you don't need to buy, I make no profit!).





Above: learning lessons at Kha Khat Wain Kyaung monastery in Karen State. Below: Kyauk Kan Latt, one of the many remarkable landscapes combining natural wonder with works of architectural art.





Above: a different angle on lessons at Kha Khat Wain Kyaung monastery in Karen State. Surprisingly close camera positions were possible without causing any objections from the monks. Below: the fabled brass neck coil of a Kayan Lahwi (long neck) Padaung woman in Pagan. These are worn from the age of two, and are not for the benefit of tourists. The practice continued when Myanmar was closed to tourism.





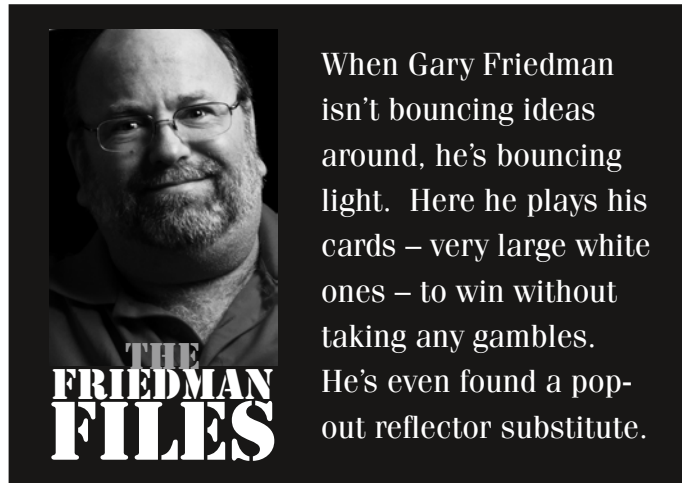
Above, Karen man and child. Below, father and daughter at Kinpun. In both photographs the yellow-white cosmetic paint on the children's faces is traditional 'thanakha' made from powdered tree bark and roots. It is a cosmetic, a sunscreen, and applied with special care for some ceremonies and occasions. Both images made with the classic Minolta G 28-70mm f2.8 lens wide open.



REFLECTED GLORY

This issue's theme is "Reflections". You've seen some images of reflections and learned a little about how and why reflections work. But reflection is also important in the context of lighting. Reflected light, especially the glow produced when brilliant sunshine hits a white wall and floods into a shaded area, can look great in its own right.

Contrasty light and backlight (contre-jour) can be tamed using portable reflectors outdoors, and flash or studio lighting can be tackled using just a single light source if you add reflectors indoors. Your ceiling or walls could be ideal reflectors. Here are some quick examples on how using reflected light can enhance the look of your images.



When Gary Friedman isn't bouncing ideas around, he's bouncing light. Here he plays his cards – very large white ones – to win without taking any gambles. He's even found a pop-out reflector substitute.

Bouncing the sun

You can lighten your shadows with the time-honored approach of a giant reflector to redirect your ambient light to where you want it to be. To make this technique effective,

it's best to put your subject in the shade (where there will be no harsh shadows), then use a white board or fabric panel from close to the camera to redirect the strong sunlight on to the dark side of your subject. You can see a textbook

example of how to do this below, using a Lastolite type (spring-rim folding) reflector which has one light side and one black side. That's because it is also used for 'subtractive lighting' to do the reverse and block out unwanted reflected light, from surfaces like that sandy beach. If you have two assistants, and two of these, you can create directional light and a 3D look.

Didn't remember to bring your giant white reflector with you on vacation? No worries... a neutral light-colored jacket or beach blanket can accomplish the same thing. My favorite portable (and cheap!) reflector was made from one of those sun shades that you place behind your windshield to cool the car on hot days. For five euros I bought a

If you want to see this reflected light technique implemented on a large scale (usually beautiful models on location), have a look at the website for California Sun Bounce (ironically a firm based in Germany) – www.sunbounce.com. This offers a ton of behind-the-scenes videos of professional lighting by just using reflectors to redirect the ambient light to meet the photographer's needs. No expensive studio lights (or battery packs) necessary!





collapsible one with two inner hoops; and I just cut it in half. Voila! Much cheaper than the professional version and works just as well, as you can see below. It even looks the same as the photographic item.

Shooting with no direct light – in these two Hasselblad Fujichrome shots by editor David Kilpatrick, there is no light source aiming at the subject. On the left, lit entirely by reflected sunshine falling on a white wall in an Algarve village (visible in the reflective sunglasses), boosting the effect of contrasting colors. On the right, lit by two 6 x 4ft reflector panels placed on either side of the camera lens to form a 60° angle with a gap just wide enough for the lens between them, with two studio strobes placed either side of the sitter fitted with French flags to prevent light spilling on to her shoulders and hair. This can be allowed, of course, and may improve the result too – see the final example in this article.



The real thing – California Sunbounce Pro-Tense spring rim reflectors in action, versus my five euro (or pound, or dollar) car window sunblocker cut up to provide two soft silver pop-out circles. That's just right for occasional home use.

FROM THE
FRIEDMAN
ARCHIVES



Reflection is also a form of meditation, illustrated in this image I took in Hainan, China at 5:00am. It's amazing what you see when you get up early! In my mind, the symmetry and simplicity of the composition is what makes it work. This being an early digital camera (Konica Minolta A1), some might criticize this image for having highlights that are blown out, although in this instance blown-out highlights are just as valid an artistic technique as intentional silhouettes. The A1 actually handled the gradations of direct sunsets better than later DSLRs.

Flash and studio

My examples on the right are taken using a single flash with softbox, black background to show the effect, and also a large black cloth hung behind the assistant to minimize room decoration fill-in.

The professional-looking male portrait below was taken using just one flash and two pieces of translucent white cloth (which costs a total of five euros not including the flash). The principle is quite simple: The first piece of cloth on the subject's left acts as a diffuser, and the second cloth reflects some of the surplus light back to the subject, acting as a fill. This is a 'studio' I can keep in my backpack.

I don't like ceiling bounce flash, but you can use a large, white wall to reflect your flash sideways to simulate daylight. The shot below was actually taken near midnight, but looks like perfectly natural window light.



Reflecting backlight

Using the technique of reflectors between the camera and subject, or beside them, you can create hair and rim lighting plus attractive reflected facial lighting using a single direct flash only.

The portrait, right, was taken using one "hair light". A large white cardboard reflector to the subject's left redirected much of the residual light back to the subject to act as a 'key' light. A second large white cardboard sheet redirected the residual light from the first reflector back again to the subject and acted as a 'fill'.



You can read more of Gary's tips for practical photography – often at low cost – and follow his travels by visiting his website: www.friedmanarchives.com



Reflected light is also essential for putting the finishing touch on a studio portrait. The first example of the sequence below starts with 'black fill' – light absorption not reflection, to create the most dramatic result. Red fill was also used to show its effect warming the shadow tones.



THE ALCHEMIST'S WORKSHOP

If you go down to the woods today, you are unlikely to see bears. No matter what you're told as you tote a heavy Zenit Fotosniper, tempted by the promise of an analogue sanctuary in the heart of Grizedale Forest.

Nevertheless, it's worth making the trip. Landscape photographer and lecturer Steven Taylor has, fortuitously, found a peaceful space for his gallery, an inspirational location for photography and a delightful place to live in in the Lake District. It is not something he is overly protective of, as with support from Ilford, he has created The Alchemist's Workshop at the Grizedale Visitor Centre.

With a passing traffic of extreme mountainbikers, walkers, motorcyclists and tourists in search of tea and scones, many would be

Richard Kilpatrick visits Steven Taylor's Grizedale Forest gallery and darkrooms in the English Lakes – where you can hire 35mm and pinhole film cameras, develop and print your own silver images

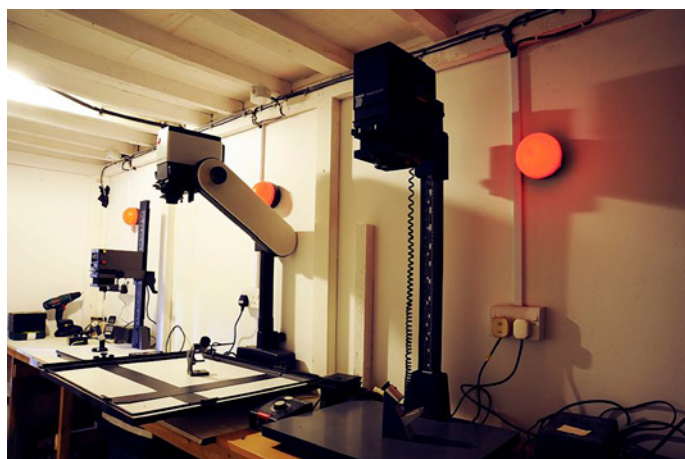
content just making stunning landscape images and selling them. Steven has taken years of educating young photographers, and make the experience of photography tactile, real once again, and it is proving to be something of a hit.

I took the opportunity to go and visit, and sample the experience, with fashion and beauty writer Suzy Nightingale. Suzy's experience of photography is almost entirely in the digital age, with no working knowledge of film, processing or darkrooms, so her impressions of the day and ability to work with the tools of what many see as a bygone era are perhaps, somewhat more relevant.

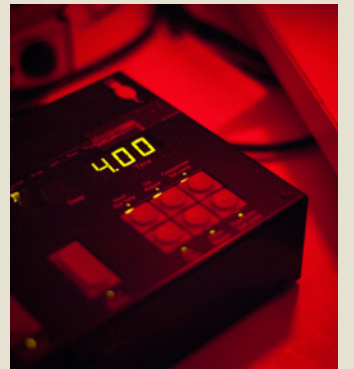
After we had found the visitor centre, which is exactly where the postcode indicates and surrounded by ample



For £30 you can take out a classic Olympus Trip 35 film camera (indoors and out, below, with the gallery and darkroom spaces) or a Harman Ilford Obscura pinhole camera, complete with film and supervised processing. The darkroom is used for group tuition and is also available for personal hire, and the cameras are also for sale.



The Craft – photos by Josh Taylor



parking, Steven talked us through the cameras sold or rented there. For £30, you can hire a refurbished Olympus Trip 35 or Ilford's new Obscura pinhole camera for the day. Typically the Olympus and roll of Kentmere 400 black and white film (made locally, and part of the Harman group like Ilford) is the easiest route. One roll and film development with a contact sheet and one chosen 10 x 8" print is included in the price. A variety of black and white stock is also carried. The Olympus is a classic point and shoot, zone focus compact with auto exposure, metering via the batteryless selenium round-the-lens cell. It offers only two shutter speeds of 1/40th and 1/200th paired with apertures from *f*2.8 to *f*22 for the surprisingly good 40mm Zuiko lens. Robust and still in good supply on the used market, the cameras are serviced, calibrated and reskinned in funky bright colours before making it to the workshop.

Conceptual portraiture

Out in the woods, we accompanied Steven for a conceptual portrait shoot. Part of a series he's working on, the context of the woodland scenes is occasionally jarring, occasionally natural and feeding into a reference or hook. There's no overarching narrative to the series, beyond enjoying the process of creating the images, and yet the viewer can identify themes, stories to suit their perception. Steven works with a Mamiya medium format system, shooting quickly, quietly, with minimal fuss. He uses only natural light and reflectors.

It's easy to understand why demand for his black and white workshops, run for 35mm and large format users alike, is high. The Alchemist's Workshop darkroom experience is such good value for experienced photographers looking for a spark, a change of pace and scenery; he's very comfortable with just sharing years of experience, discussing ideas.

After lunch and his portrait shoot, we head back out into the woods to play with

the cameras. Suzy was at a distinct advantage with the Trip as I elected to resurrect the aforementioned Zenit and its slow 300mm Tair zoom lens, further hampered by a lack of battery for the metering. The Zenit FS12 uses a PX675, which I had, but the manual in the box states two Mallory cells, a lesson in preparation. As a backup I took the relatively modern and automated Contax T2, which is perfectly content with the DX-coded Kentmere film. Challenging dappled woodland light is something many photographers grew to love and hate when amateur photography meant processing your own black and white! No HDR back then. It was in abundance on one of the sunniest days I've seen in the Lake District.

Returning to the darkroom, Steven explained how to peel open the film cassette, fold or cut the leader and load 35mm film into familiar spirals. It was all flooding back for me, having not been in a darkroom for twenty years, for Suzy it was an entirely new situation – one that could actually lose the images she spent hours gathering.

But, lights off, Suzy has the can open and the film in the take up spool quickly. It fails to spool, and Steven quickly helps out and we get on to the illuminated part of processing the films – the swirl of chemicals as we invert the tanks to agitate, the bubble-dislodging tap on the table top, then the familiar smell of the warm drying cabinet. All over the walls, the mixtures, timing and temperatures for different chemicals assist with the "Alchemist" side of the workshop, though the abrupt beep of a kitchen timer is a little different to the familiar ticking of the darkroom clock I grew up with.

Five enlargers, from a Leica 35mm AF model to rollfilm Dursts and a big De Vere 504 allow small groups to work together and also provide a cap on the group size for the paid workshops Steven offers. Much of the equipment has been donated by photographers,





and if you're clearing out your darkroom I can think of few places more appropriate for your kit to enjoy a productive retirement.

Inevitably, my untested and meterless Zenit yielded a one-in-three hit rate with my own inexperience with the camera. Where I'd given in and just guessed seems to have been the right option, though. The Olympus Trip 35 delivered impressive consistency. Steven talked us through creating a contact print, and then Suzy selected one of her images to produce a 10 x 8, creating a test strip first. The shadows, light and lines of the visitor centre's modern block appealed so that is the image she picked.

With only an hour or so to walk and take pictures, we didn't allow ourselves the full experience – as many will start the day at 10am with their cameras and return after a good time spent exploring the Grizedale Forest, which includes hidden artworks and a breadth of scenery that only the Lake District can provide. For those staying longer, the option to buy a refurbished Olympus for £75 is exceptional value. In an era when low-cost, plastic analogue tech attracts a premium Steven's pricing on refurbished Olympus beats similar offerings on eBay and elsewhere by about £20, and you can use the camera before buying. An enjoyable drive and crossing the Windermere ferry to return to the M6 finished a day that should be on any photographer's itinerary when visiting the Lake District.



Pictures: facing page and above left, shots taken by Suzy Nightingale – first roll of black and film, and first experience of developing and printing. Left: Suzy uses the Trip 35. Below: Steven working on woodland conceptual portraits, photos by Suzy. Above: Grizedale Forest woodland art, by Richard Kilpatrick, shot on Zenith and Contax cameras and film processed at the workshop. See www.ilford.com/artisan for details of other sponsored workshops in the UK.



www.thealchemistsworkshop.co.uk
www.golakes.co.uk



CAMERACRAFT REARVIEW

**Objects seen in this mirror may be closer than they look.
A curated gallery of selected or submitted images.**

Panoramas on the roof of the world, and in the basement of the world – two very different places on opposite sides of the globe.

Left, the salt mines of Wieliczka in Poland, photographed on industrial assignment by Marek Czarnecki. Marek is one of the country's leading commercial photographers and a specialist in 'gigapan' images. The salt mines are said to be good for breathing, but not for cameras.

See: www.czarnecki.com.pl and www.gigapano.eu

Below, a multi-shot HDR composition of Machu Pichu, the great lost city of the Incas in the Peruvian Andes, by Domingo Leiva. Machu Pichu is not so good for the lungs, and equally hostile to cameras and tripods, in a different way. To undertake photography within the ancient site an expensive permit is required. See: www.dleiva.com





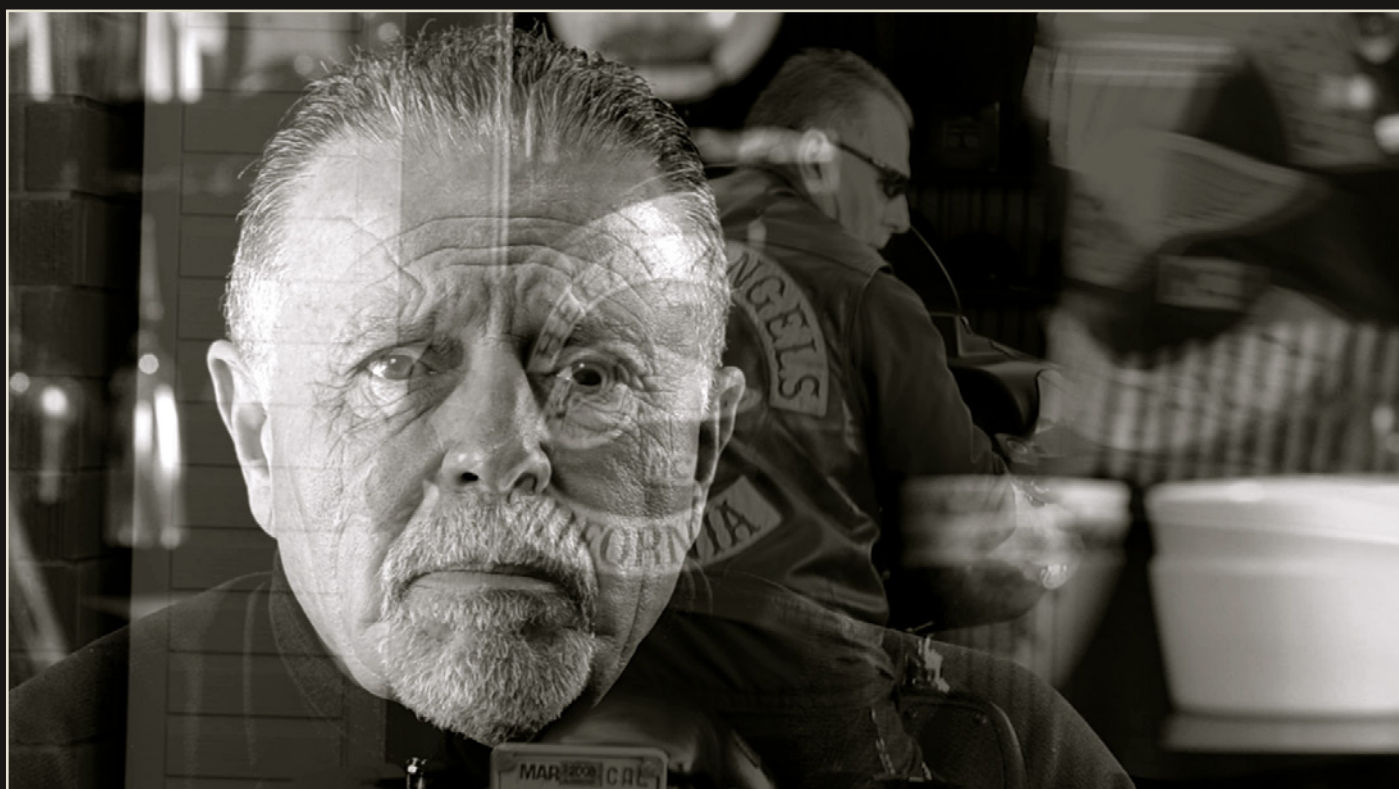
Top, by Glenn Turner of Camberley, Surrey: brave ladies atop Boeing Stearmans of the Breitling Wingwalkers display team, Farnborough Airshow, July 2012. Alpha 700, 100-400mm Minolta Apo lens at 400mm. Below, Cliff Whitem photographed this lane near his home town of Saline in Scotland in winter snow. Right, Mike Riach shows the other side of Scotland, in August, a walk on the beach of Banff taken using a Sony RX100 acquired from your editor (who promptly went out and bought another as it was so much missed). Right, Upper Antelope Canyon's April light by London professional Panikos Hajistilly (www.panikosphoto.com). This image won him the London & Essex Group overall Photographer of the Year 2013. Canon 5D Mk2, tripod, 6 seconds, 16-35mm f2.8 II lens. "The rays from the sun only hit the middle of the walkway for about 10 minutes each sunny day. The ray is visible because of dust in the air, and reflects off the red of the sandstone, amplifying the redness of the rocks."







*Time to reflect – what's black and white and being read about everywhere? These dissolves are from UK independent filmmaker Nick Mead's documentary *The Last American Outlaw*. George Christie, former No 1 Hell's Angel, was accompanied by Nikon D7000 HD video on a ride of rediscovery through the roadscapes of the West. During the filming, Christie was arrested and charged with two counts of arson, and his battles with the FBI in the face of what he claimed was false evidence from informants became part of the story. There followed a battle to repress the film, won by the authorities while matters were still sub judice. Christie has now started his one-year jail sentence. Mead has been able to première the film.*



CAMERACRAFT REARVIEW

If you would like your work considered for our Rearview gallery, email a webpage link to editor@iconpublications.com or send no more than three email-friendly attached images. We will request a larger file if you're shortlisted.