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CAMERACRAFT



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CONTENTS ISSUE NO 1

- 3 Cameracraft Update
Changing gear, up to photokina 2012
- 6 Chasing Shadows by David Kilpatrick
Lessons in light we have learned to forget
- 10 Work in Progress – David Tarn’s ‘One’ project
- 14 Change and Decay a progress report
- 18 Déja View – *seen today, scene yesterday*
- 19 Cameracraft Portfolio – the Art of Trevor & Faye Yerbury
- 27 Cameracraft Future Plans and Binders
- 28 The Glass Menagerie – New Life for Old Lenses
How old glass from collectible to cullet found new life
- 32 The Friedman Files with Gary Friedman
When the iron curtain came up on a stage show
- 36 Gentlemen Only Take Polaroids – the Impossible Dream
Richard Kilpatrick on the making of a new legend
- 40 Rearview
Images glimpsed in the mirror of our editorial journey

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TIME and technology change most things, sometimes for better, sometimes for worse. No matter what changes, good photography remains a constant. Our benchmarks for vision and technique go back not one generation or two, but centuries. Daguerre, a working artist, was probably drafting sketches for paintings using a camera obscura a full 200 years ago at the age of 24.

How Westernised eyes (worldwide) compose pictures, how we use light and shade and how we interpret two-dimensional perspective all date back over seven centuries.

It doesn't matter that today's cameras use digital technology dating back barely 30 years, or that the best quality may result from a generation of gear designed last year only to be outpaced next year.

Ninety percent of the technology behind any photograph is organic. It lies in the brain and the eye of the photographer programmed by our exposure to society, culture, education and art.

Cameracraft is not about being professional, being amateur, being an artist or even just owning a camera. It is about the timeless values of the image.

Cameracraft is for anyone who intends to be a good photographer no matter what path technology follows. We will help you rediscover the fundamental values of the photochemical past, and explore the great opportunities of the digital present and future.

We will feature classic work old and new. If you see it in *Cameracraft*, it will because we like it and think you will like it too. Welcome to your bespoke photographic quarterly; we hope you will enjoy it and keep every issue as a companion for the future.



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We go to press just days before the biennial photokina exhibition in Germany, the traditional launch-pad for all the latest equipment.

Traditions change, and manufacturers no longer keep everything under wraps until photokina. There was one exception this year; in August, we received a complete portable flash kit from Elinchrom to look at, with the proviso that nothing must appear in print before September 18th.

Sony's progress

Over the last year, Sony has confirmed that all future interchangeable lens cameras will use electronic viewfinders. We have to record the death of the optical finder. The last solid glass prism in a Sony Alpha model dates from 2008, the design of the Alpha 900/850. The last porroprism (hollow mirror prism) can be found in the Alpha 580. This approach contrasts with every other maker from a photographic background – see our updates for Sigma, Pentax, Nikon and Canon – but falls in line with developments in systems from electronic manufacturers like Samsung and Panasonic.

In August 2012, Sony released their first CMOS sensor with on-chip phase detect autofocus. This system relies on pairs of pixels removed from the imaging matrix and used instead to determine correct focus through a comparison of their brightness balance. The pixels are partially masked, an engineering feat placing a microscopic physical gate between the microlens and the sensel. Only when the image-forming light cone reaches its apex at the focal plane are the brightness values of the two pixels in the pair matched.

In Sony's patent, the lens used must match the optical design of the pixel pairs. Its exit pupil, and thus the shape of its focused ray bundle, must be within a specific range. The first PDAF on-chip sensor in the NEX-5R would appear to use three pixel pairs for

CAMERACRAFT UPDATE



The story of 2011/12 is almost summed up by the shot above showing the 16 megapixel Nikon D4, fitted with a 28-300mm VR zoom, next to the 24 megapixel Sony NEX-7 fitted with an 18-200mm Tamron VC (exactly the same zoom range). Shown together, one shot, actual relationship. And then along comes 20 megapixels in a tiny zoom compact – RX100. Not to scale with the others!

each of its 99 focus points. Depending on the lens in use, the appropriate sub-sensor point will be activated and the other two switched off.

Although this system removes the need for partially reflecting mirrors and optical PDAF modules, it doesn't work with all lenses. Unless the lens fitted matches the exit pupil distance requirements, the sensor must revert to using regular contrast detection manual or auto focus.

Several E-mount lenses

are being redesigned, some of the 2010-2012 series will be discontinued or replaced with a new version, and a new 16-50mm f3.5-5.6 collapsible power zoom becomes the standard lens for NEX-5R, NEX-6 and future kits once the existing 18-55mm stocks are sold.

The NEX-5R is a 16.1 megapixel model, similar to the NEX-5N. There is some debate about how much final resolution must be lost by the inclusion of the PDAF

pixels. Whatever it may be, the exceptional accuracy of this focusing method will no doubt compensate.

In the DSLR/SLT system, the full frame Alpha 99 was due to be shown at photokina (or a few days beforehand, while this magazine was being printed or mailed). It was not known whether the A99 sensor (24 megapixels, much improved in performance compared to its ancestor of four years ago) would use any PDAF pixels. Our bet was no, since the vast range of Alpha system lenses for the A-mount was never designed for this AF method optically or mechanically.

Sony is redesigning many of the Alpha (SAL, SSM, G and ZA) lenses to use focusing motors compatible with contrast detect focusing during video. All the SAM motor lenses already have this function. We can expect to see a gradual update of the A-mount range over 2013-2014.

The most interesting development from Sony outside the E-mount and A-mount systems was the launch of the Cyber-shot DSC-RX100 in June 2012. This camera uses the first Sony sensor in the new 'one inch' or 2.7X factor size, around 8.8 x 13.3mm.

Fitted with a very good quality fixed Zeiss zoom, f1.8 at the wide-angle end, the tiny RX100 packs in 20 megapixels. This would be the same as a full frame camera with 150 megapixels. It seemed to be a recipe for high noise levels while hitting the optical buffers. It proved to be otherwise; the RX100 can fairly match a 16 megapixel APS-C sensor at ISO 3200 given similar processing from raw, and at low ISOs turns in a detail sharpness the Canon 5D MkIII can rarely match when used with a similar zoom.

The 'one' size sensor could be more important in the future. It allows advanced lenses to be designed without unmanageable size, weight and cost. Sealed rear optical systems and silent electronic shutter operation add to the appeal. The Nikon 1 system may be one key to progress.

Nikon — one for all

Launching the first one-inch 2.7X factor system with interchangeable lenses, Nikon beat Sony to claim ownership of this format. Their 2012 introduction of the J1 (consumer grade plastic body) and V1 (metal body, aimed at the enthusiast and advertised in professional media) ended rumours that Nikon would compete with NEX and produce their own APS-C mirrorless system.

Almost as small as the Sony RX100, the 1-series bodies are slightly better to handle and have the great benefit of an eye-level viewfinder option in the V1. This is built-in, like the Sony NEX-7, a late 2011 introduction which established the benchmark for good design in a rangefinder style EVF body. That benchmark was rapidly challenged by Fujifilm, of which more later.

Relying on PDAF pixels for a first fix on focus but contrast detection to refine results, the 1-series shares with NEX a recursive focus-finding action which can be a little disturbing. The finder appears to 'go in and out' as you use first pressure on the shutter, with a fluctuation in brightness and distinct delay before a stable, focused image is seen.

The Nikon 1 sensor is only 10 megapixels, which until the appearance of Sony's 20 megapixel design seemed ambitious enough for such a small area. A year on, and it now seems too little, just as the 12 megapixel sensors of the MicroFourThirds models began to look seriously outdated before 2012 brought in a new generation of 16 megapixel silicon for Panasonic and Olympus.

What we expect to see is the Nikon 1 system with something like the Sony RX100 sensor.

Of more importance to professionals, Nikon took full frame DSLRs to a new level with the D800 and D800E (version without AA filter) in 2012. We have used both these cameras, and they come very close to matching the output of medium format digital backs.



A real product for the twenty-teens – Harman Photo's Titan Pinhole cameras, for exposing sheets of 4 x 5" film or paper.



Fuji X10 appeal – RF style, retro case...



though there is a hint of noise present even at low ISOs which is absent when much larger pixels are involved.

Their 16 megapixel D4, theoretically arriving in time for the Olympics, offers a low-light robustness which many photographers will prefer to the 36 megapixels of the D800 models. As we write, there's no sign of this versatile high-speed full frame sensor appearing in a lower cost body – or of the 36 megapixel sensor migrating to a fully professional body. In the meantime the D3S, D700 (12 megapixels) and D3X (24 megapixels, 2008 vintage) give Nikon six current full frame bodies using four different sensor types, at prices designed to confuse any buyer when the best and latest can end up costing half the oldest model's surviving RRP.

Canon

The 2012 Olympics spurred Canon, like Nikon, to update their professional range. The 1.3X sensor format used for higher speed pro

than they do. The exceptional overall performance of the 21 megapixel sensor, with crippling slow burst rates cured and low light extended into the tens of thousands, wins users who then get to appreciate the lighter weight and relatively compact body.

They now have a further size and weight choice, ideal for travel, with the launch of the Canon EOS-M mirrorless compact system camera. Not yet tried out at *Cameracraft*, first impressions are that a 1.6X sensor is not as attractive as the Sony/Samsung/Fuji 1.5X and a 22mm *f*2 pancake lens, equally to the conservative 35mm focal length of 1970s compact rangefinders, adds little to an 18-55mm kit zoom which really needed to be 15-45mm from the start.

But it's a Canon, it has good adaptation to Canon EF and EF-S lenses, and Canon say they won't follow Sony and release the mount technicals to allow third party adaptors. No doubt they won't have to, given the ease with which Canon firmware has been improved by third party hack projects.

The Canon G12 optical viewfinder equipped zoom compact has already given them a big share of the 'professional's pocket' market.

Fujifilm

That market has, however, been commanded brilliantly by Fujifilm. Just as they once dominated the rollfilm rangefinder field, Fuji between 2010 and 2012 established themselves as leader in the optical finder digital RF-style race.

The FinePix X100 (35mm *f*2 lens equivalent, hybrid optical and electronic switchable viewfinder) became the APS-C Leica which Leica never made, in 2011.

In 2012, the FinePix X10 put a larger than normal subminiature sensor into a classic metal RF body with a mechanical zoom and traditional controls. A simple optical finder works well enough – no expensive hybrid here – and many users just compose on-screen. With a

very good, fast 3X zoom and sensible 12 megapixel count, this highly affordable (sub-£400 UK) camera had to shake off a minor sensor fault before sales really took off. There is nothing else like it and it has those great Fujifilm colours.

Finally, the launch of the X-Pro1 system with its big 17mm back focus lens mount, Leica size lightweight magnesium body, hybrid optical-electronic finder and top class fast prime lenses persuaded serious users to part with the price of a Nikon D3S in order to get a three-lens kit and 16 unusual megapixels filtered in an almost random RGB array with extra greens. With new lenses arriving in 2013, this APS-C mirrorless compact system may cost twice as much as Sony NEX but it's a third of the cost of a full frame digital Leica kit. And that is what it most resembles.

Fujifilm, of course, makes the current Hasselblad glass and even sells the cameras as Fuji models in Japan. We should not be surprised to see them aim for the most discerning buyers.

Sigma

In the meantime, one of the best cameras in the world goes almost unseen because (as we go to press) Adobe has failed to provide vital Lightroom/ACR support for its unique Foveon X3F raw files.

The Sigma SD1 Merrill, named for Foveon sensor inventor Dick Merrill, has a 1.5X format and a nominal 16 megapixel array. This would satisfy most users as a Bayer RGB pixel count. But it's not Bayer, it is a true 16 megapixels where every pixel is full RGB. In practice, the SD1 Merrill has a higher resolution than the Nikon D800 and its lack of anti-aliasing or deBayer processing creates the most exquisitely sharp, tonally smooth, three-dimensionally detailed images possible.

Sigma's own processing software is clever but slow and a poor experience for those used to mainstream solutions. There is every reason to believe that Adobe, Aperture,



This could be the best DSLR yet for design, ergonomics, viewfinder, and low ISO image quality – the Sigma SD1 Merrill.

Capture One Pro or DxO Optics Pro would improve high ISO performance and recover more dynamic range from these latest X3F files, just as they did from the earliest Sigma raws.

The same medium-format level sensor finds its way into DP1 and DP2 Merrill pocketable compacts which use much the same top quality 19mm *f*2.8 and 30mm *f*2.8 optics Sigma also sells for the NEX and MicroFourThirds systems. As a lens maker, Sigma has proved not only innovative (as they always were) but capable of a quality to match and sometimes exceed the performance of big marque glass.

Pentax

It's hard not to like Pentax. Their 1960s Spotmatic was a classic design with the best looks and ergonomics in almost two decades of production.

Like Sigma, they are a bit of a dark horse. The current K-5 and K-30 are class leaders for weathersealing and optical prism viewfinder quality. They use the best CMOS APS-C sensor ever made – the same 16 megapixel Sony sensor which powers the Nikon D7000, Sony NEX-5n, Alpha 57 and many other bodies. They make some of the neatest, best quality system lenses on the

market and they took over the Ricoh camera division in 2011 (including UK distribution in 2012).

The K-5, in particular, is interesting for functions which include the ability to shift the stabilised sensor to a fixed 1.5mm off-axis 'rise or cross' position (mini shift lens).

Their own mirrorless K-01 is unusual because it uses the regular K-AF mount instead of having a separate compact lens system. With a dedicated pancake 40mm, it's still a very slim small camera – but that is no surprise from the maker which brought the world the M-system and beat Olympus at the game of small and perfect.

They also harked back to the Pentax 110, the subminiature 1970s SLR, with their Q-System using a tiny 5.5X factor sensor, equally tiny lenses, and a body not unlike the Nikon 1 in format.

The Pentax 645D 40 megapixel digital medium format system, finally revealed as a working product at photokina 2010, has been the most affordable such camera of the last two years despite fierce competition from Mamiya, Phase One and Hasselblad. Where we are aware of many Phase One and Hasselblad users, the same can't be said of Pentax 645D. Someone out there is using them – but who?

Samsung

With the NX system competing as a soundalike name for NEX (or the other way round, really) Samsung has been slightly hampered by the very deep register and body thickness of their system, which makes it hard to use with adapted lenses. The 20 megapixel sensor has a good enough reputation, the cameras seem well designed, their i-Lens function with a lens ring control is clever and appeals to traditional camera users.

The question 'who is using them?' is possibly geographically biased. Unlike Sigma or Pentax 645, where rarity is linked to the unusual nature of the buying decision, Samsung is a giant electronics company trying to capture a mass market.

Since they parted company with Pentax, there has been no cross-brand system building. Perhaps they have left behind the enthusiast and 'car glove box camera' pro market as a result.

MicroFourThirds

The full SLR FourThirds system is almost dead. In the last year or two, the MicroFourThirds mirrorless variant has taken over entirely.

Panasonic and Olympus, after a short period where their products looked similar, have taken different paths with the retro-styled Olympus OM-D system appealing most to former SLR owners. Inside, the brands use much the same technology and have particularly smooth video.

If they have any failing, it is that MFT offered a chance to miniaturise more along Nikon 1 lines. As with NX and NEX, the lenses have prevented pocketability. Panasonic pioneered the collapsible power zoom (14-42mm) and now that Sony has copied this with a squashable 16-50mm for NEX, you can expect it to become the future form of mirrorless system kit lenses.

In our next edition we'll look at photokina 2012 – whatever it brings.



CHASING SHADOWS

by David Kilpatrick

We have stopped seeing the world in black and white. Many generations of photographers learned to ignore colour because monochrome was their daily medium. They lived by light and its ability to transform scenes and subjects.

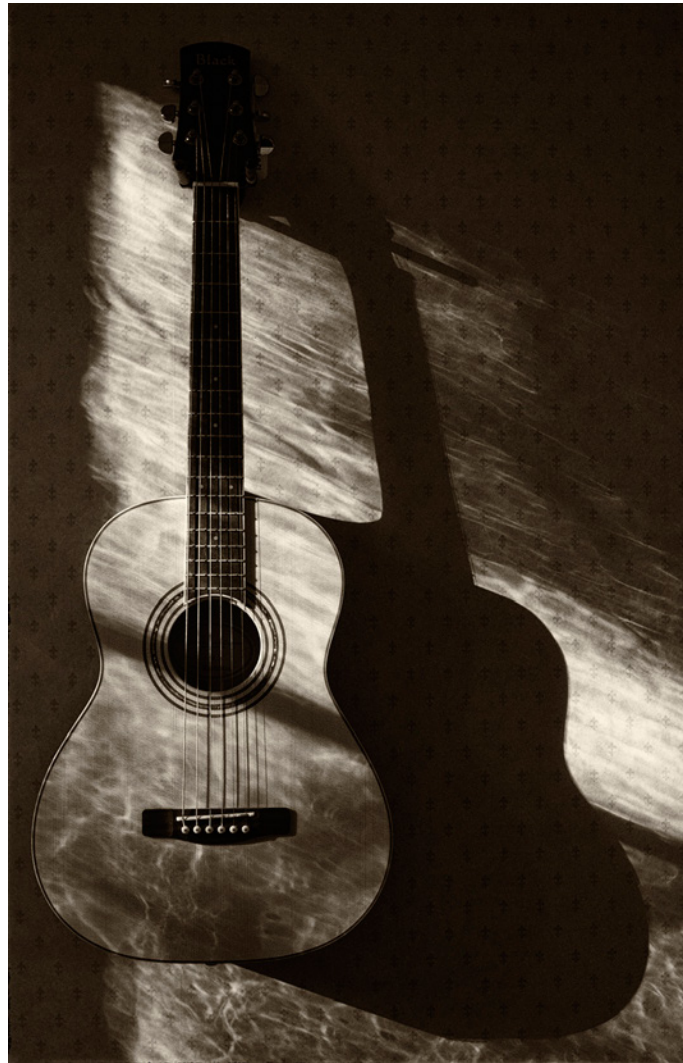
The study of shadows cast, umbral, and penumbral filled pages of textbooks and magazines. From the exact shape and position of the nose shadow in a portrait to the different qualities of sunlight and studio sources, it was at the heart of over 100 years of camerawork.

Colour photography began life with a dynamic range so limited that the rulebook was thrown away. Softer contrast without cast shadows became popular, especially in the studio where umbrellas created an era of symmetrical dirty smudges surrounding objects. Studios went to great pains to remove all hint of shadows, floating cut-out products in plain space with or without the help of retouching.

It's a legacy which lives on. Even now, commercial portrait studios love to show subjects against pure black ('film noir') or white and rarely allow the subject to cast a shadow.

We have forgotten how important cast shadows were in the first fifty years of the movie industry, where direct undiffused lights provided power in two senses.

We have not forgotten mid-20th century monochromists like André Kertész, Bill Brandt, Hugo van Wadenoyen or Walter Nurnberg, to name just a handful in very different fields. But we may have forgotten how they observed light and used shadows. In the digital age, we associate strong shadows with



The quality of monochrome inkjet printing and software like NIK Silver Efex Pro 2 (used for BW conversion of the cover and pictures in this article) combined to promote a return to traditional motifs like shadows. Drawing with light also means drawing with shadow.

technical problems like noise or over-inked prints.

As we move away from optical viewfinders to (EVF) electronic displays, shadows are once again seen as earlier black and white photographers learned to previsualise them – pure black which the eye can not penetrate, as it can deep shade in the real world.

Electronic viewfinders tend to lose highlight information as well. The sky appears at sunset without a sign of the sun. No

doubt this will be corrected as technology improves, at both ends of the tonal range.

Electronic finders give us the ability to change our view to black and white. Once, special viewing filters were used so that you could assess a scene in near-monochrome; movie directors still use them. Today you can preview the world in perfect monochrome at eye level, and see the effect of changes in exposure and contrast, through your EVF.

The colour of shade

Shadows as a subject or important element of a scene often work better in black and white. In colour, they take on a cast from either the open sky or surrounding fully lit areas. Blue skies on a sunny day may produce blue shadows. Many photographs capture the effect on snow where cast shadows can look as blue as the sky itself. Exactly the same relative colour shift affects sand or concrete, they are just not as good at gathering and reflecting the sky light.

Shadows as an effect of lighting on a subject, not cast shadows but the umbral gradations of a solid object, have an infinite range of colour casts as they are lit entirely by reflected light from the rest of the scene.

It is these casts which make pictures taken by reflected light so appealing. If a backlit portrait is taken with light reflected from sand or warm-coloured walls flooding back into the shadow, skin tones acquire a golden glow against the neutral to blue bias of the background scene. Fashion photographers love the narrow streets of Mediterranean seaside towns. Their combination of coastal light and multiple reflection from honey-coloured walls produces light that can be directional yet soft, tinted but still able to show fabric colours.

Colourful places where houses are painted can offer a choice of open-shadow colour casts, some to avoid and some to enjoy. Blue or green surfaces may not colour reflected light sympathetically, but they offer good backgrounds for people lit by warm colour reflected light.

This type of town or village

is also a good place to look for cast shadows. They just look better falling on a painted stucco wall than they do on red brick or modern construction surfaces.

One of the enduring myths of photo-expert advice is that you should avoid shooting during the middle of the day. This may well apply in the open countryside. It doesn't apply in the built environment. Whether you are talking skyscraper canyons or Greek island alleys, morning and evening light can leave north-south running streets in the dark or create a choice of blinding into-the-sun versus flat sun-behind you views on east-west orientations.

Mid-day sun can reveal textures and cast shadows on vertical surfaces, whether buildings on rock faces. It may bring other problems, such as contrast and colour temperature or the presence of strong heat haze.

Winter sun in latitudes where days are shorter may leave some subjects in permanent shadow. You can also encounter a difficult mismatch between clear blue sky and low sun with a yellow bias. It's nature playing crossed curves, blue shadows and jaundiced light, and this is a good time to consider converting to black and white.

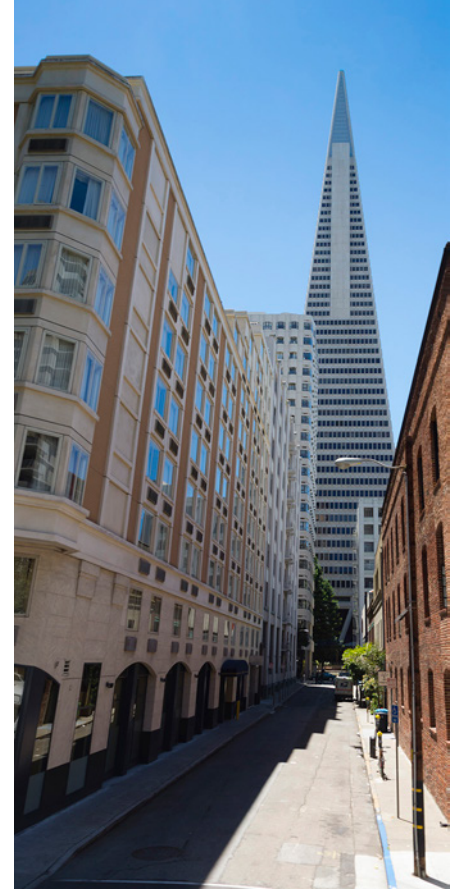
Sharpness & scale

The sun is unique its ability to cast long shadows without the quality of the umbral edge changing. It's such a relatively small source, so far away, that it will cast sharp shadows on sea or ground from aircraft 30,000 feet above.

Even so, cast shadows from sunshine have a slightly soft edge which the eye sees as natural. We are so used to the quality of sun shadows that we can recognise a stage spotlight or flashgun shadow subconsciously. Creating a sun-like shadow from an artificial light source is difficult and calls for a small source at a great distance. The largest theatre or studio produces shadows from spotlights which have a steep perspective.



Left: shaded areas lit by reflected light – gold on gold, Palace of the Arts, San Francisco – demonstrate why placing your subject in shade facing a sunlit wall can produce appealing colour. Right: 1pm, mid-day in the city, when the light and shade is better for a narrow street than morning or evening sun.



Below, 12 noon sun in May in southern Italy – a time of day to avoid, many will say. But the cactus flower shadows are from overhead sun.



Shadows from the sun may lengthen but they don't spread out – this is entirely an effect from the 24mm lens on Nikon D700. The shadow at the camera position is the same size as the tree casting it.

Using a close source – as with someone standing below an old-fashioned street lamp – this perspective can be dramatic. Combined with a wide angle camera view looking from the end of the cast shadow, towards the subject and the light source, it becomes a signature for mystery or drama. The huge flickering shadows cast by candles are caused by the same projection effect.

If an artificial light shadow has a soft edge (large relative source) this will be rendered differently by contrast settings. Portrait or low contrast capture will show the full gradation of the edge, higher contrast will make it look sharper. A pure lith-print or line conversion style will have no gradation and turn the shadow into a perfectly sharp shape. The exposure and contrast settings you choose will change the look, and the psychological impact, of shadows used this way.

In cities shadows may combine with reflected light from glass, ceramic or metal architectural surfaces – both in sunshine and by street light. Look around and look down.

Shape shifting

I work in an old house with south-south-east facing windows. Inside, there are shutters with random gaps and knot-holes. In the windows, the glass panes are mostly 200 years old. Outside, wisteria hangs over them and trees change their shape as they grow and are cut back. Clouds, seasonal change in the leaves, the wind, and the changing path of sun cast light and shadow into the house.

In over twenty years I've never tired of the changes in shadows cast by objects in the rooms, or across them. The windows can act like a huge diffused light source, their shape modified by trees. Even soft shadows have distinctive directional qualities and appear to move as I watch them.

Observing this has taught me much about how photographers can shape their own light. Natural light, especially in older interiors, is rarely as simple as a square softbox in the studio. It nearly always has 'shape' – the source is not a point, or a circle, or an even dome of sky. That sky may be four times as bright at one horizon and have a zone of dark clouds. Trees or buildings may shape the 'source' of light for your subject into a triangle or a narrow slot. Sometimes, especially when cloud covers the coastline but leaves the sea open, light may come from a panoramic band similar to what studio photographers used to call a 'longlight' and place level with the subject.

Every different shape of light source casts shadows which echo its outline. A tall slot window in a castle will cast shadows that are very soft ended but well defined at the sides. Think of one of the most unpleasant light sources of the 20th century, the six-foot fluorescent tube, and the visually tiring quality of its 'shadowless' light.

When sun falls through leaded lights, the glass may refract light into patterns while the small panes are divided by the sharp shadow cast by the leading. If there's



A ragged pool of light reflected from windows in Prague casts vague shadows of people, an image 'held in' by the surrounding deep shade.



This simple but very detailed (24 megapixel) beach study looks casual but meant waiting for a few minutes. It's not an arranged shot, but a found one (whether that matters or not). The shadow moved fast enough for its position to be anticipated.

something outside casting a shadow – branches and leaves for example – the final combination can be complex and beautiful. It may even be worth photographing in its own right, just light and shadow falling on a surface.

When photographing an interior the natural and artificial light may have been planned for effect, and that could include the way it forms shadows. No matter what culture a viewer comes from, photographs which use shadows as a key part of their design will hold their attention.

Time and exposure

On a more practical note, like many photographers I started life using limited equipment and materials. I quickly learned that the one stop difference between clear sunshine and slightly hazy sun, with the edge of a cloud in the way, could decide whether my shot was well exposed and easy to print or short of the ideal.

So we watch shadows! The eye is not too bad at telling the strongest sunshine from its diluted state, but cast shadows offer the best indicator.

Standing with the camera on a tripod, one eye watching the building or landscape for the changing light, the other watching for the shadows to sharpen up. A familiar exercise?

Shadows also change with time and move surprisingly rapidly with the sun. The texture of lichen, the visibility of old carved letter in stone, or the dimensional rendering of a building can be transformed with a five or ten minute wait.

Reclaiming lost art

Why have shadows, once so important to photographers, lost their place? We can now photograph things in any light we wish, Fox Talbot called some early works 'Sun Pictures'; 170 years later, we don't need the sun.

Before photography, there was no great obsession with the sunlit world. Artists rarely painted sharp light and shade even if they had the occasional blue sky. After photography, artists began to enjoy the effects of light and shadow.

Then the trend reversed, with the changes that introduced this article. Today, it's unfashionable to show direct light and shadow. Trends such as the inevitable use of long time exposures in the landscape (accompanied by booming sales of 10-stop neutral density filters) and working in dull conditions post-processed to 'art effect HDR' dominate aspirational work.

Digital processing has given us one recent benefit, in the form of the Shadow control for *Lightroom 4* and *Adobe Camera Raw* in CS6. This allows the brightening of a carefully defined band of tones, with the effect of putting detail into cast shadows. Where traditional negative photo printing would let such a shadow be almost pure with a mere hint of density above fog level, we have the option of imitating the eye's adaptation and showing more in our shadows without sacrificing a true black point. We can now use shadows as we want. It's time to find them again.

– DK



White buildings make a fine blank canvas for shadow, creating the wall texture and the cast patterns from trees and ironware (Carmel Beach, CA). Below, the geometry of a deep cast shadow emphasise lines, shapes, light and the baseball-capped boy. Jamestown, CA.



For a number of years now I have said that photography is not about the equipment, that it is not about the techniques, that it is not about the rules of composition and perhaps most controversially that it is not even about light. Real photography that might be considered art is about passion for the subject, it's about the story the picture tells.

During 2011 I didn't take enough photographs, you can not be a photographer without taking photographs, and so I started a project to prove what I mean about photography and to take more photographs.

For one year I would take at least one photograph every day using just one camera and one prime lens. The camera is a Lumix GX1, the lens a standard 20mm. To make it interesting every photograph has to be a real image I would be happy to print and hang on my wall. Each is offered as a limited edition of ten small prints and One 'unique' larger print.

I can't even say this was a good idea at the time, it is an idea I have eschewed for at least twelve years because I should never take on something like a 365. I knew this because of a flaw or a strength in my nature depending on how and when it is applied. I knew that taking a picture every day without setting standards would be easy. I knew that it would be difficult to do so with the kind of standards I would set, and crucially I knew that no matter what life threw at me during the year I would take a photograph every day.

In an attempt to accommodate this flaw in my nature I set another rule, failure is an option, if I miss a day I miss a day. After all the goal is to take more photographs, to spend more time being creative, the one everyday is simply a mechanism to achieve the goal, it shouldn't become a straight jacket. My wife warned me very early in January. Her words still echo, "Don't let it take over your life". I think I rather glibly replied "as if, this is just a bit of fun for Facebook"...

ONE



DAVID TARN SET OUT ON THE FIRST DAY OF THE LEAP YEAR 2012 TO CREATE ONE FINISHED ART IMAGE EVERY ONE OF ITS 366 DAYS EACH IN A LIMITED EDITION OF TEN+1 PRINTS USING JUST ONE CAMERA AND ONE 20MM LENS



There is no underestimating the importance of the audience for this project. I aim to have the day's photograph on my Facebook wall the day or at latest the day after it is taken. The comments and the "likes" and just the sheer amount of interest in the project are a very genuine encouragement to continue. I have been genuinely surprised by the interest.

From the point of view of my original goal it has certainly worked, I have taken a lot more photographs than I ever have before. The most frustrating part of the project is the everyday part, some days I can take a dozen images that make the grade and have to choose just one from them for the project. The very next day I might struggle to find anything, and I have all these good photographs I can't use from previous days. It is very wasteful that way.

The One project has been a voyage of discovery for me. I have explored the area I live in much more closely than ever before. I have spent hours walking from my own front door seeking an image for the day and been really surprised by the number and quality of subjects I have found simply by looking and being open to the possibilities. I have discovered that the single most important thing when it comes to finding subjects that speak to me that I hope will speak to the viewer is my willingness to look, think and listen to my inner voice.

Where I am, location, conditions, they come a distant second to my own frame of mind. I have always wanted to live somewhere I could walk from my front door and take an interesting image, it has taken close to the 20 years I have been a photographer to discover that I do. I hope to turn the whole project into a book next year.



See: www.davidtarn.com

Top left: after the party, a New Year's Eve shot which started it. Left: Ribblehead through wet screen, January 2nd. Facing page: the Hot Seat, South Gare, January 29th; Saltholme, May 12th; tethered horse, May 9th.





Bus Stop, August 12th.

The Destiny Centre, Stockton, January 16th.





Jesus and Junk, March 14th

Mixed Media, duckpond, February 19th.



It's one year since we published the final issue of *Photoworld* magazine and a little over thirteen years since the final issue of *Photon*. That magazine had, in its turn, absorbed both our own *35mm Photographer* title and the freelancing newsletter *Cash from Your Camera* produced by Lee Frost and Steve Bavister.

2012 is also the 25th anniversary of Icon Publications Ltd, a company founded specifically because of what was then called the desktop publishing revolution. For 24 of those years, we've issued hundreds of photographic magazine editions from Kelso. The final *Photon* was the 73rd edition, and was replaced by *Freelance* which reached its 48th bi-monthly before finding a new home in 2007 with EC1 Publishing Ltd, the contractors for the Royal Photographic Society's *Photographic Journal*.

In the meantime, we printed a dozen miscellaneous titles such as the short-lived *35mm* and *Photo Club News*, an early digital imaging title called *DI+*, and even a couple of *Vectis* magazines for Minolta – anyone remember the APS film interlude? Alongside all this, for professionals we have published over 200 membership journal issues for the British Institute of Professional Photography and the Master Photographers Association.

And of course, there are 116 issues of what started as *Photoworld*, became *Minolta Image*, and ended again as *Photoworld*.

All of this accumulated landfill fodder is still to be found in binders and on shelves, in boxes and racks. Any hunt for a snippet of past information can lead to an hour rediscovering all kinds of stuff which is not forgotten but recedes sharply with the perspective of change.

Except for one component. *The pictures.*

Put a magazine from a quarter of a century ago next to one from today – from the same print works – and there's no great improvement in the quality of reproduction on the

CAMERACRAFT

CHANGE & DECAY a half-term report



Found, displayed on a shelf in our offices, using a vintage Kodak mahogany 'No 4 Cartridge' double darkslide – a hand emulsion coated artist's paper print by Les McLean. Written on the reverse, '4 Layers, No Developer, Toned'. Now that was photography...



Early roots – *Photo Technique* in the mid-1970s when David Kilpatrick was Associate Editor; *Minolta Mirror* in 1980, with a featured photo essay, the year before taking on the *Minolta Club of Great Britain*; *Creative Photography*, produced in 1982 as launch editor for Carlton; and *ILFORD PHOTO* in 1986, one of Icon's first DTP created magazines and PIRA award winner.

page. There are occasional runs of issues where something was not perfect with scanning or reproduction, or digital cameras were in their infancy of 1 to 3 megapixels and we wanted to see just how far the files could be pushed.

If a single issue appeared where the quality had fallen there was a reason, like a short-lived change to a different litho printer, or a disastrous month for the wet-processed separation films we used for printing before

2003. Our leaking processor eventually meant a whole wall had to be replastered.

Some types of image were worse than others. Scans from ordinary enprints and tricky originals like lustre surface paper were poor. Today we would probably rephotograph the original using a DSLR, rather than attempt a flatbed scan. The best slide films, like Fujichrome Velvia 50 and Kodak's final generations of Ektachrome, were almost impossible to scan with any level of shadow detail.

Despite this most of the 700-plus magazine issues produced by Icon, all devoted to photography, still look contemporary in terms of the way the images are reproduced.

So what exactly have we gained from technological change and development – and what have we lost?

The fault line

I've been looking at the great work which came from our contributors like Jon Tarrant, Geoff Redmayne, Les McLean, Professor John Hannavy, the late John Tinsley, Steve Newman, the late Bob Smithies, Colin Dixon, John Chillingworth, David Bigwood, Duncan McEwan, Peter Karry, Raymond Lea. And too many more to mention, plus the featured photographers with their portfolios, and the individual images sent for gallery pages.

It all looks *different*. Each contributor or photographer had a very distinctive signature to their output. No other photographer's black and white prints looked the same as Ray Lea's single weight drum glazed fibre based work. Their strong contrast and intense blacks, not without detail, matched his pictorial eye for traditional monochrome views.

Similarly, Les McLean's fine art prints look quite different from Colin Dixon's though both used a wide range of films, developers, papers and toners (and still do). Peter Karry bought his slide film from the same store as anyone else and his cameras had the same

meters, but you could tell a sheet of Peter's slides instantly because of his preferences in density, contrast and colour.

Most of our contributors had their own darkrooms in daily use until the early 2000s. Some used photo labs with a distinctive twist, like a modification to the E-6 process to make it work better for Fuji or Kodak. Some worked mainly on rollfilm, some on 5 x 4, others on 35mm.

This was also the period of 'real' cross-processing, Polaroid manipulation and lift techniques, scanning and digital enhancement, hand-coated emulsions and alternative processes. At one time, thanks to Dr Tim Rudman, the whole photographic world seemed to have lith print vision.

What made everything so distinctive was that the faults and failings of the processes – or the way the individuals used them – put their stamp on the final image.

There were so many variables that each photographer could evolve their own look.

This is what we seem to be missing today. It's also something we plan to return to in *Cameracraft*, particularly the potential for hybrid analog and digital processes.

Faking it

As I write this, the wonderful Irish photographer Gerry Coe has achieved his second Fellowship of the British Institute of Professional Photography and received a certificate which has written on it – for "iPhone Art" (two examples from his portfolio, right – 'Lone Tree' and 'Titanic'). I published Gerry's first enthusiastic outpourings of his iPhone in February 2011 *Master Photography* as a portfolio feature. At first he just showed them off for interest – the Hipstamatic and Instagram retro-process apps giving them a kind of wall-art quality. Then he found that not only would they enlarge to wall-art size, he could sell the results at gallery fees. Clients started wanting the iPhone art and proved willing to pay for it almost more readily than for 'straight' photography.

Any day's picture feeds from friends and unknown friends of friends of Facebook will throw up many examples of *fauxtography*,



From Gerry Coe's BIPP Fellowship in iPhone Art

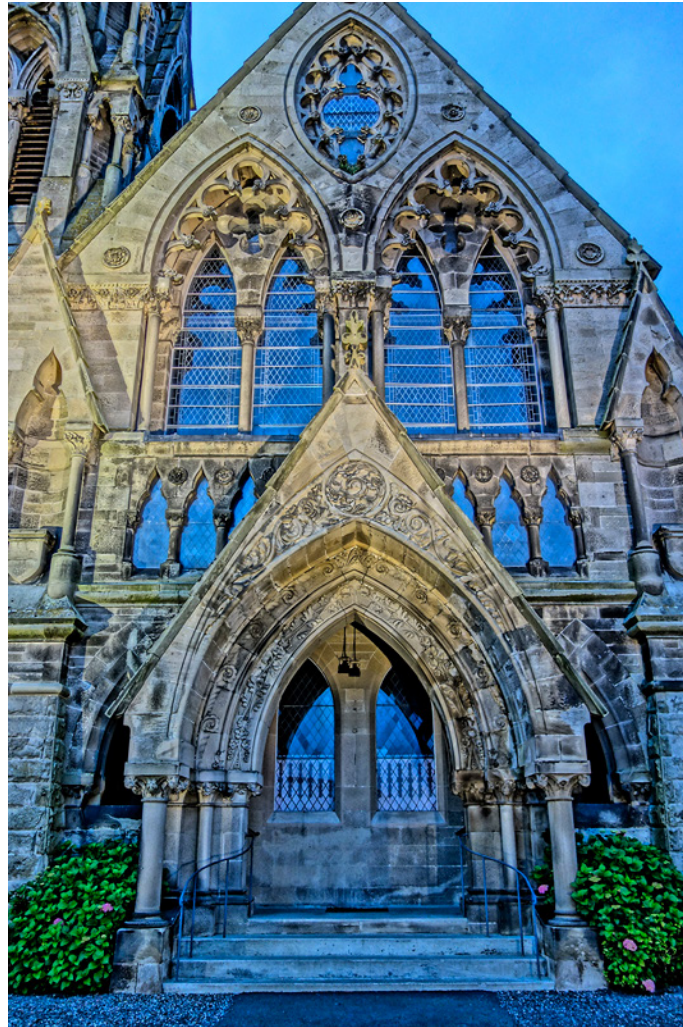


as the genre has become known. Hipstamatic as an app offers *shake'n'bake* – the motion sensitive iPhone responds to shaking by applying random changes to a shot. From this, professional photography has progressed to *take'n'fake*.

In the world of pro competitions, the rise of digital fantasy images has caused everything from disgruntlement to disqualifications, and many changes to rules. For 2012 the Master Photographers Association split wedding award entry categories into one strictly for 'real' shots taken on the day, and one for staged or manipulated art. In some ways it's an impossible distinction to make, because plenty of clients ask for and pay for the digital fantasy as well as the documentary reality. There is a big business now where the photographer becomes a travel guide or companion to a couple, before or after the wedding, visiting far-off locations for a week of shooting them as fashion models or pseudo-celebs. Favourite destinations include London, Paris, Rome and Venice. Earlier this year, a Chinese newlywed flew with her wedding dress all the way to Edinburgh and booked photographer David Bryce to pose her against the city's varied iconic architecture.

Often (though not in this case as it happens) such images are matched by extremes of digital processing, using the HDR (High Dynamic Range) Art Painting technique to emboss the original tones with a silky, metallic finish. Colours can become desaturated, contrast is enhanced, cloudy skies take on the look of having been very crudely burned-in with visible glow-zones round buildings that in turn have soot-darkened outlines.

A true HDR image is produced by taking three or more exposures on a tripod, of a static subject, bracketed over anything from 1EV to 6EV range. These different exposures are then blended by a process of tone-mapping, taking the shadows from the



2012 – off-the-shelf HDR effect, Sony RX100 camera
1912 or earlier (probably 1896) – off-the-shelf carbon pigment print



overexposed range, midtones from the correct exposure, and highlights from the darker frames. When done with a precise masking technique and blending, the result is natural in appearance. It's rather like a contrast-masked transparency dupe or a water-bath two stage developed b&w print.

The popular HDR Painting or Art effect is based on automated plug-ins, or in-camera software, which can not do the fine manual selection work needed for a technically impeccable HDR. Instead, wide radius unsharp masking prevents any sudden transitions. Local contrast is enhanced within areas of the original image which have low contrast (regardless of what medium density zone they fall in). The mask creates the dodge-and-burn effect glow wherever strong contrast boundaries are present.

Many cameras – now from all makers – include something called HDR Art or Painting in one or more strengths. Some take multiple shots in rapid succession, and use pixel alignment where the software identifies correlated patterns and matches them. This allows the photographer to shoot hand-held. The technology is so good it can even identify the sharpest face detail of the multi-shot burst, or the face with eyes open and a smile, and prefer this area of that particular image when synthesizing a final output JPEG.

So, pocket cameras like the Sony Cyber-shot DSC RX100 with its extreme 20 megapixels of resolution can now do the take'n'fake stuff just as competently as the professional fashion-follower of the previous year. The amateur can set the mode, take the shot, and end up with the same silvery metallic-looking watered silk world. Flat dull cloudy skies suddenly become interesting, water, stonework and fabric leap into hyper-real relief.

Through our professional magazine I'm quietly trying to get professionals to rein in the excesses of HDR processing right now! It's

rather like colour-popping, where a monochrome picture has a single object in full colour, or just one colour in the spectrum is allowed to survive desaturation. A few years ago we published instructions on how to do this using photo editing programs. Then every single wedding from smalltown studios seemed to feature a monochrome bride with a coloured bouquet, or a row of black and white blokes with just their red carnations popping out. Now you set the effect on your digital pocket camera – or even your high end DSLR.

Trends without ends

The distinct personal differences from choice of materials, equipment and processing which marked the two decades before the digital deluge have been replaced with selection of Presets, Actions, Plug-Ins and Filters for *Lightroom* or *Photoshop*. The monochrome and toned conversions of *NIK Silver Efex Pro 2*, and the many image looks of onOne Software, are just two examples of how commercially designed ‘processes’ standardise today’s supposedly creative output.

But, if you followed Tim Rudman’s lith printing methods 20 years ago, was that so very different? I found a portrait by Morgan of Aberdeen, of a beautiful Edwardian girl, at a Sunday car boot sale. On the back of the unusually delicate almost copper-toned print is a label advising care, as the archivally permanent image is a carbon pigment print. At the time it was fashion – and the carbon colour came from a sheet bought off the shelf...

– DK



Postscript:

Here’s what I wrote in *PHOTOpro* in Winter 1991 – have a good laugh:

“...images will soon be captured to near-photographic quality and printed to a standard indistinguishable from a good 10 x 8 conventional print”.

We got there, and yet in a way we also did not.



Timeless values, silver or digital

Is it classic black and white darkroom work – or the modern equivalent? Ron White produced this Calla lily view – almost a traditional subject for any monochrome portfolio – without going near a darkroom. The final print is a giclée, or fine art inkjet. He used a Nikon D90, exposing for a quarter of a second at f32 and ISO 400, using a Nikon 18-200mm at 120mm. The raw file was processed in Adobe Lightroom and converted to monochrome using NIK Silver Efex Pro. www.rfwhitephoto.com

DÉJÀ VIEW



How many photographers, shooting the must-do views of Eilean Donan castle in Scotland, realise that this apparently authentic ancient stronghold is in fact a 20th-century reconstruction? Above is the view we see today, from the shore of Loch Long, taken by Duncan McEwan. Below is a view from the 1920s pictorial book series *Hutchinson's Britain Beautiful*, credited to Valentine & Sons Ltd, undated but probably pre-WW1. This castle of the Mackenzie Earls of Seaforth was bombarded from the sea and destroyed after the Battle of Glen Shiel in 1716.

“The rebuilding was carried out between 1911 and 1932”, Duncan tells us. “I don’t have any images, slide or digital, from the angle shown in the old print largely due to the growth of trees and scrub. I think it might still be possible if you find a way through, but I have always stuck to the easier options! I have recently finished illustrating a ‘then and now’ book on Glasgow, trying to match up exactly images by George Washington Wilson, Francis Frith and Thomas Annan. I found that tree growth, even in the city, has blocked so many views. I found it a fascinating and challenging exercise.”



CAMERACRAFT PORTFOLIO

No 1

TREVOR & FAYE YERBURY

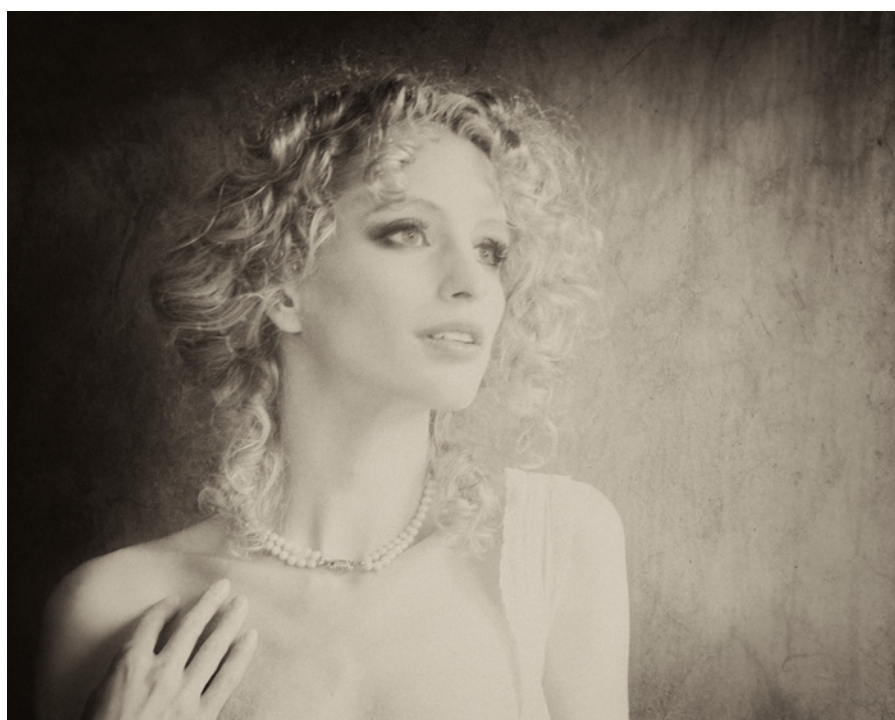


by Trevor Yerbury

REFLECTING 150 YEARS OF TRADITION IN A PHOTOGRAPHIC DYNASTY



Model Fredau features in all three of these images – above and right, styled by Faye and taken by Trevor; below, taken by Faye. Trevor works with large format and film, both also use digital systems and simulate darkroom processes for printing.







by Faye Yerbury



by Trevor Yerbury



Both images by Trevor Yerbury



YERBURY BEHIND THE SCENES: BRIDGING 150 YEARS OF LOST ART

Many photographers experiment with older processes and equipment. Few continue to use them in the course of daily work. Trevor Yerbury, representing the fourth generation of a photographic dynasty founded by his 7'4" tall great-grandfather in 1864, is one.

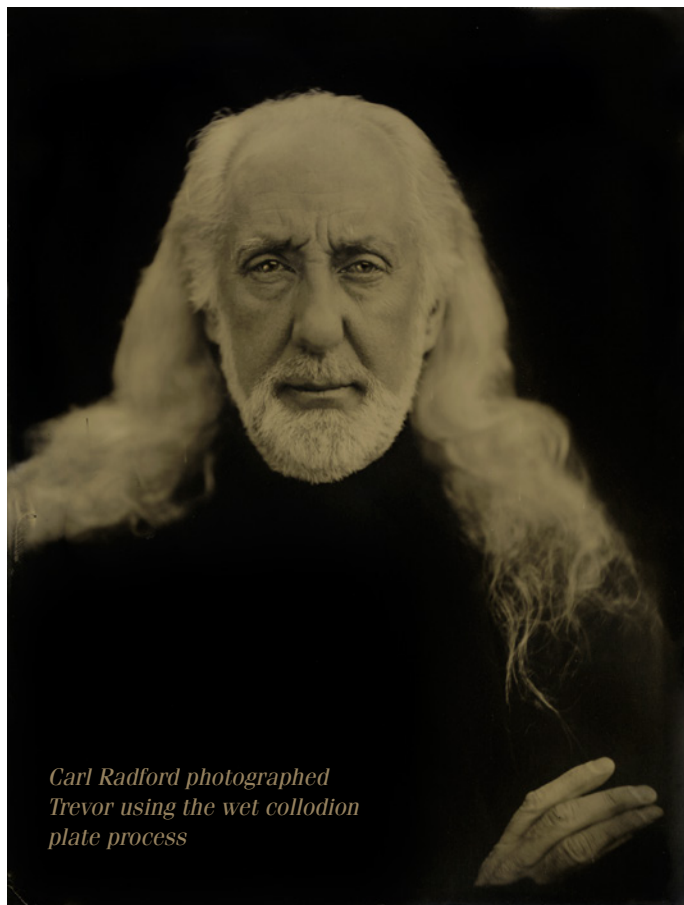
His dedication to using film extends beyond the comfort zone of a classic Hasselblad to working with 10 x 8" Gandolfi and Canham view cameras. Even in the world of commercial photography, the larger 10 x 8 format became unfashionable half a century ago.

Yerbury of Edinburgh has always been a name associated with unusually fine prints. The expensive and delicate processes used a century ago, such as platinum printing and carbon pigment transfer, were associated with salon-quality art and not just alternatives based on convenience. They were painstakingly difficult to master in their heyday, when photographers were expected to master chemistry and brushwork skills.

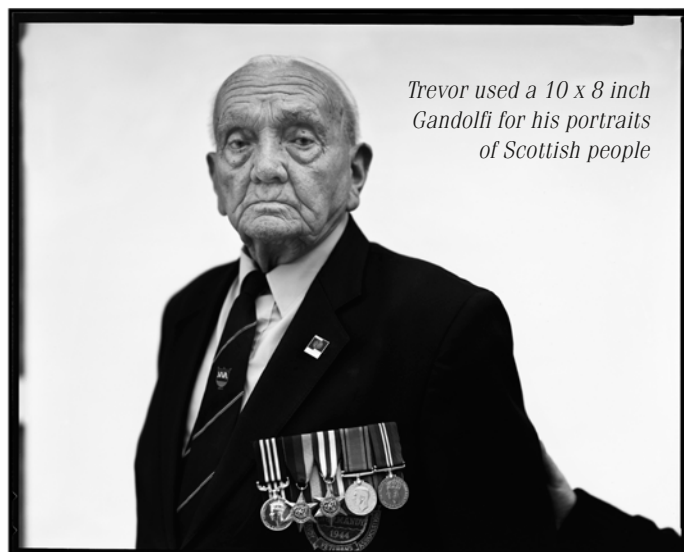
Trevor Yerbury makes most of his limited edition prints in exactly the same way other contemporary photographers do. He uses archival quality pigment inks on an Epson printer, the company's K3 multiple-black inkset providing ideal monochrome rendering. His film work is scanned and becomes a digital file for giclée printing.

The same process can be used to create digital negatives – inkjet on a clear film – which can be then be contact-printed in much the same way as a 10 x 8 silver film negative.

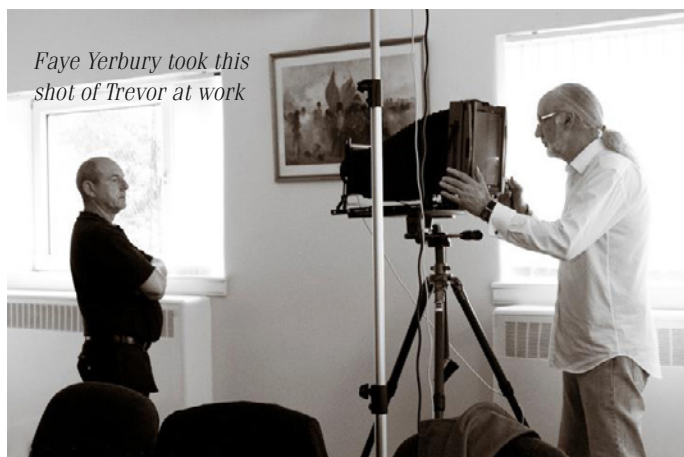
Contact prints do not pass through the lens aberrations and light-scattering effects of an enlarger. They are imaged directly on to the print paper and have an exquisite sharpness and unique tonal quality. To be able to make genuine contact prints, using hand-coated platinum or



Carl Radford photographed Trevor using the wet collodion plate process



Trevor used a 10 x 8 inch Gandolfi for his portraits of Scottish people



Faye Yerbury took this shot of Trevor at work

palladium papers, Trevor has returned to the large format view cameras of his family heritage.

On this journey, he has co-operated with others who explore the past. The wet collodion process, a dangerous method for coating sensitised plates using gun-cotton dissolved in ether as an emulsion to carry silver halides, has been revived by Carl Radford. Trevor himself became a portrait subject for the cover of Carl's Blurb book, *Collodion Collaborations*, which Carl produced after health concerns convinced him to give up the use of the process.

Access to the Yerbury archives – subjects ranging from everyday life to royal portraits over more than a century – has given Trevor a fine insight into the craft he has revived.

During his own decades behind the camera, Trevor has been most drawn to documentary portraiture and the art nude. His projects to portray both Edinburgh's and Scotland's personalities have supported charities and provided exhibitions viewed by thousands. His classical nudes are in collections worldwide, even if the Provost of Edinburgh once censored and outlawed a show in the city centre's windows.

In the late 1970s, Trevor met his wife Faye, then a photographic fashion stylist. They have collaborated ever since on staged and styled figure, beauty, fashion, erotic images and fine art editions – treading the paths of Beaton, Bailey, Hamilton, Newton, Carlos Clarke and finding new directions beyond. Faye is an accomplished photographer in her own right and both have won many awards.

They also follow in the Yerbury tradition, taking heirloom family portraits, studies of children, and a few very rare weddings.

www.yerburygallery.com

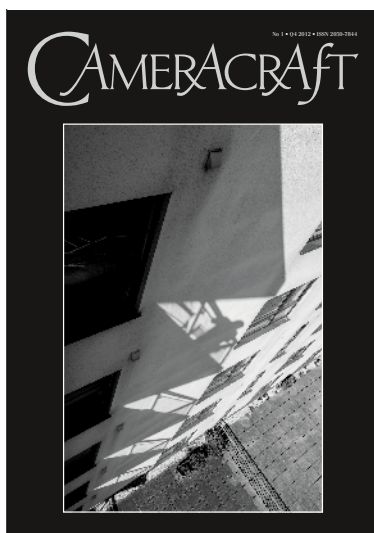
In every issue of *Cameracraft*, we will publish an 8-page central section devoted to a portfolio. The photographers featured will receive a valuable reprint edition, a lifetime subscription to *Cameracraft*, and will be added to the **Cameracraft Roll of Honour**.

That list starts with Trevor and Faye Yerbury whose work was selected at the earliest planning stage. We wanted to start with a portfolio covering both film and digital, from the strongest tradition to a spirit of innovation and excellence, yet entirely free from superficial effects or styling.

Trevor and Faye are also based in Scotland, part of our country's cultural heritage in their own right, and it is fitting for what will probably be the last new magazine title published from Icon's Kelso base to reflect our origins.

It could be that our next portfolio comes from California. When visiting Gary Friedman to set up our transatlantic editorial link, we were able to see some of the superb work on show at the

Our Portfolio Promise



In addition to portfolios, we have four covers to choose every year. That's not many cover pictures. For the first issue, I decided to use one of my own pictures. I've done that before because the launch mock-up was produced and advertisers then expect the same to appear. This time, it was because this picture formed the idea for Cameracraft. I took it from our daughter's balcony, in the morning sun of midsummer Leith harbour. The waist-level LCD means my own shadow self-portrait does not have the typical look of a photographer, camera to eye. On processing the raw file, I realised this image would have had me working hard in the darkroom, once, to make the best possible print. It took me back to why I became a photographer. From there, the concept of Cameracraft developed.

San Diego State Fair, which hosts a major photo salon. Our trip passed through Yosemite, to Monterey, Point Lobos, Carmel and so many places immortalised by the circles of Weston and Adams, and the publishers of the original US *Camera Craft* magazine a century ago.

Cameracraft is not intended to be web-free but we will not divert effort to the internet. Our Roll of Honour will appear there as it grows.

All of our readers are welcome to nominate photographers for a portfolio. Trevor himself suggested two photographers with wonderful current work, not surprisingly on *real film* with a *real darkroom* workflow.

But we are not limited to thinking traditionally, or considering only established names. There is also room in every edition of 44 pages – as advertising-free as we can make them – for work in progress, creative instruction and one-off images of excellence. – DK

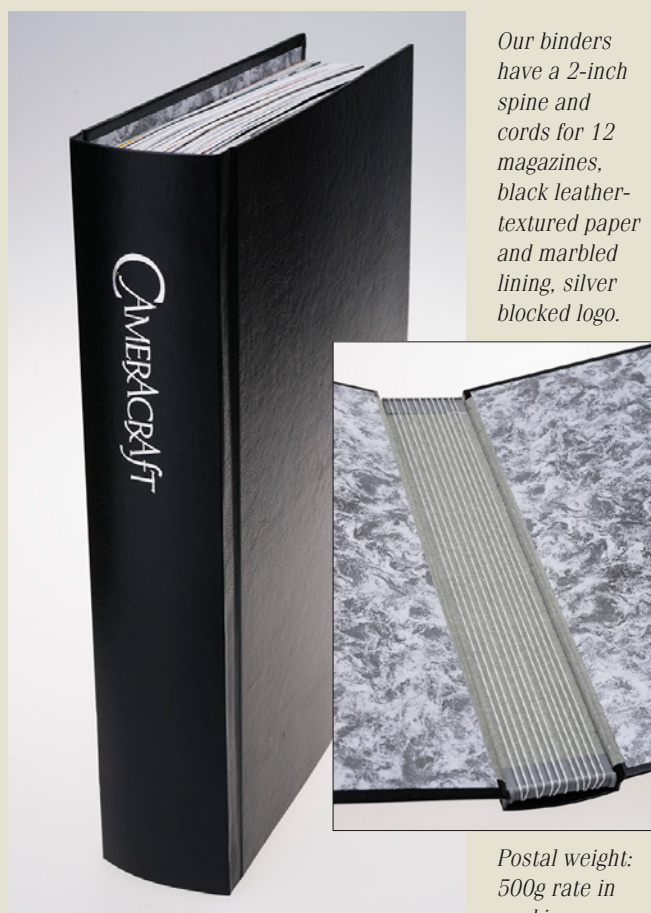


A Binding Commitment

Cameracraft is published quarterly partly to give the editors time to produce good quality issues, and to reduce the impact on our readers' finances. Though high quality print is now very affordable even for specialist short run publications, the costs of subscription mailing have escalated in the last three or four years. We want you to keep *Cameracraft*.

There have been photographic partworks with binders and no advertising in the past – monthly or even fortnightly in the heyday of partworks. Today it can easily cost £60 or \$100 a year to subscribe to many European monthlies.

As a quarterly, we provide a quality product with as many editorial pages in this issue as a much larger advertising-supported title. Our Cordex magazine binders will hold 12 issues, or three years in each bookshelf volume, and are black kraft on board with a silver foiled spine logo. You will want to look back on our editions in future, and we will not fill your entire house with piles of magazines to do this! See our web page www.iconpublications.com/cameracraft for details of how to obtain your Cordex bookcase binders.



Our binders have a 2-inch spine and cords for 12 magazines, black leather-textured paper and marbled lining, silver blocked logo.

Postal weight: 500g rate in packing.



Ricoh GRX with Leica M fit module and Leica, Zeiss and Voigtlander lens choices. Photo by Richard Kilpatrick.

Lenses old and new are finding a new life on mirrorless camera system bodies with short register distances – as little between flange and focal plane as 17 or 18mm. Where once the business of adapting older lenses to fit 35mm SLRs was governed by half a millimetre in register difference, systems like Sony NEX and Fujifilm X-Pro have such slim bodies that almost every lens ever made including those for half-frame and 24 x 24mm Robot, even some 16mm ciné C-mount, become useful optics with the right adaptor.

Although some adaptors had been made for the Micro FourThirds system – principally for lenses from the Olympus OM and regular FourThirds – it was Sony's 18mm register NEX which really revived the fortunes of junkbox glass. It took Sony under three months from the launch of the camera system in June 2010 to announce they would make the mount specifications freely available to third party adaptor engineers. At photokina in September 2010 the company, normally protective of its branding and closed system to an extreme degree, proudly showcased a collection of alien glass from two decades with non-Sony adaptors.

The floodgates opened. Companies like the Chinese Kipon, Japanese-designed Metabones and German Novoflex created infinity focus adaptors for every lens from Contax G to Leica M, Konica AR to Minolta MD, Pentax

THE GLASS MENAGERIE



A Kipon tilt adaptor fitted with a Meyer G.D.R. Lydith 30mm f3.5 M42 thread lens. Meyer lenses are plentiful, thanks to Praktica.

M42, Nikon and even the very difficult Canon EF with its electronically set apertures. The Micro FourThirds market followed rather than led; despite having a format better suited to certain types of C-mount lens, it has a register too deep to allow conversion. Samsung's NX system, with bodies 5mm thicker than Sony,

also suffered from not being able to fit some of the more exotic glass. The Fuji X system arrived eighteen months after NEX, and wisely opted for a mount register just 0.5mm thinner – enough to make it almost impossible to adapt any NEX lenses to Fuji, or to put the excellent Fuji glass on any other system.

The winner and loser was Leica. With the screw thread and M-mount registers of 28.8mm and 27.8mm respectively, there is no digital mirrorless system made which can not accept Leica lenses. Because the patent on the Leica M mount ran out many years ago, Ricoh has been able to make a sensor-incorporated module for their GRX which has a Leica M mount. Cosina, manufacturing for Epson, created the first APS-C dedicated Leica mount digital body in the RD-1. This was never a mass market camera, so despite the fact that it could easily have accepted adaptors for any SLR system lens, no such adaptors ever appeared. Why?

The focus solution

The reason is much the same as it always was – why Leica film cameras never ended up being used to mount Nikon F lenses, or anything except macro and extreme tele glass on the Visoflex reflex housing. The reason was that you couldn't focus the uncoupled lens or even see what its field of view was.

If you have a rangefinder camera depending on a



Olaf Ulrich used a Minolta manual system adaptor on a Leica M9 to rediscover the merits of the Minolta MD 7.5mm circular fisheye lens on digital. The very fine focusing tolerances of this lens make it difficult to engineer to fit a digital AF-mount body, and the SR/MD mount limits adaptation to many camera systems. Below and right: here's what happens when Richard Kilpatrick gets hold of a Fujifilm X-Pro 1, Leica adaptor, 55mm f2.8 M39 screw Industar and some Corfield Periflex extension tubes.





mechanical coupling for a coincident image focusing system, and an optical view with suspended frames for just three or four focal lengths, it is counter-productive to fit a lens of any other focal length or one which can only be focused by guessing.

Ultrawide lenses are an exception. They have always needed a separate viewfinder. In the early 1980s, I converted a 21mm *f*4.5 Minolta Rokkor of the type which required the mirror of an SLR to be locked up. SRB Griturn Ltd (then known as SRB Film Services) the British custom engineering firm made me a perfect Minolta SR to Leica M adaptor, so the lens could be used on Shirley's Leica CL. Part of the rear element metal surround had to be ground down to prevent it fouling the exposure probe inside the CL. Focusing was by scale (not a big problem with a 21mm) and the viewfinder was its original, slotted into the camera flash shoe.

Things changed totally with digital imaging and live view composition on the rear screen (or, recently, through electronic eye-level viewfinders, EVF).

Now, the field of view of

*Above – a flashback to 1982, and a Minolta 21mm *f*4.5 mirror lock-up wide adapted to fit Leica CL using scale focusing only. Starcross, Devon, by Shirley Kilpatrick, original print on Ilfospeed Grade 2, FP4 negative developed in Acutol, 4X orange filter, *f*8. Below: today, even extreme teles like this 1000mm Questar fitted to Gary Friedman's NEX-7 can be focused and framed perfectly, thanks to Live View.*



any lens fitted could be seen exactly – more precisely than any older generation rangefinder or DSLR. Exposure could be set at the working aperture, removing issues with aged and inaccurate or damaged iris mechanisms. Focus, too, could be performed on the screen often at a high magnification. All of the things which prevented legacy glass from vintage rangefinder and SLR systems being used on modern digital bodies (or film bodies) had been removed.

The position now is that every single mirrorless camera you can buy is capable of magnified manual focus,

working aperture exposure and a 100% accurate preview including flare patches, zones of unsharpness, poor flatness of field, decentering issues – all the stuff which made rubbish old glass the rubbish it was.

Myths and memory

The generation taking up many older lenses has no memory of what they were like when sold for their intended systems.

Some ridiculous amounts of money are asked for secondhand zooms from Praktica which are not Zeiss, and not even made in Jena.

They were bought in from Japanese makers. These zooms for Praktica SLRs had no Zeiss parentage.

CZ Jena, later Jenoptik, made some good lenses, though never as good as the Hasselblad, Rolleiflex and other ranges from Zeiss Oberkochen in West Germany. In the 1970s the distinction between CZ Jena and Meyer designs almost disappeared within the Praktica range, but Meyer is one of the names found on many earlier lenses.

Meyer Primoplan, Primotar, Trioplan and Domiplan examples range from OK to unusable. The 29mm Orestegor was a higher priced wide-angle design, while the 30mm manual Lydith was low cost... and it shows.

German glass of the 1950s to 60s included designs from Isco, Schacht, and Steinheil. Even when the design and assembly was good, the coatings used were not. Travenars, Ennalys, Quinons and similar lenses dropped to junk prices once first-rate performers from Asahi Pentax, Nikon, Canon, and Minolta established new standards in contrast and colour rendering.

This has been forgotten to the extent that almost any old European lens commands a high price because it can be adapted to mirrorless digital.

The focus and aperture inaccuracies cease to matter – even the low contrast and cold blue colours can be corrected by doing a blast of Photoshop Auto Levels. Those milky shadows and flaring highlights disappear, the vignetting can be corrected, the distortions removed.

As for Russian glass, or more accurately Ukrainian glass produced using former Zeiss designs and plant, it ranges from excellent to unusable. It was rarely equal to or better than German, East or West – as the Hartblei remanufacturing venture has confirmed, some ‘Russian’ glass can be made first-rate by hand engineered remounting but ultimately the market demanded Zeiss-Schneider-Rodenstock quality. Those three names are still your best guarantee of something useful from the secondhand shelves.

In time, digital users will become savvy enough to know that the gulf between a 25mm *f*4 Enna Lithagon (an early ultrawide, which shows its age) and a 25mm Contax T* coated lens from Zeiss can not be bridged by mere post-processing.

Most lenses made before 1968 were single-coated, those before 1950 are often uncoated. Pentax Super Multi Coating was the first to change lens performance substantially, in 1971. Zeiss T* (1979) and Fuji Electron Beam followed, with the EBC ranking equal to Pentax SMC for clarity and contrast. Nikon and Canon were slow to adopt multicoating. Canon’s Spectra is comparable to Minolta Double Achromatic, Super Spectra to Super Achromatic. It’s generally easy enough to tell. By the late 1970s, most good camera brands including Rollei, Konica, Chinon, and Cosina had good multicoated glass. No matter what affection others have for old glass, new glass generally works better. If you want to try real vintage glass – test before buying!

Stacking order cuts your costs

If you buy the wrong adaptors too soon, you limit your options. Canon’s EF SLR register is slim. You can fit M42, K-mount, Exakta-Topcon, Contax/Yashica, Nikon, Leicaflex/R, Mamiya 645, Pentax 645, but not Minolta AF or MD. So if you buy one rangefinder adaptor for a mirrorless body, you may be able to add further ‘steps’ to fit an SLR lens. It’s always a good idea to avoid buying a screw thread main adaptor as M39 or M42 adaptors are easily found for most SLR bayonet fits.

| | |
|--------------------------|---------|
| <i>Pentax Q</i> | 9.2mm |
| <i>Nikon 1</i> | 12.29mm |
| <i>C-mount</i> | 17.52mm |
| <i>Fujifilm X-Pro</i> | 17.7mm |
| <i>Canon EF-M</i> | 18mm |
| <i>Sony NEX</i> | 18mm |
| <i>MicroFourThirds</i> | 19.25mm |
| <i>Samsung NX</i> | 25.50mm |
| <i>Pentax 110</i> | 27mm |
| <i>Leica M</i> | 27.8mm |
| <i>Robot</i> | 28.1mm |
| <i>M39 Leica Screw</i> | 28.8mm |
| <i>Contax G</i> | 29mm |
| <i>Olympus Pen F</i> | 28.95mm |
| <i>Contax/Kiev</i> | 34.85mm |
| <i>FourThirds</i> | 38.67mm |
| <i>Konica AutoReflex</i> | 40.7mm |
| <i>Miranda</i> | 41.5mm |
| <i>Canon FL/FD</i> | 42mm |
| <i>Minolta SRMD</i> | 43.5mm |
| <i>Canon EF</i> | 44mm |
| <i>Praktica B</i> | 44.4mm |
| <i>Minolta/Alpha</i> | 44.5mm |
| <i>Rollei SL35</i> | 44.6mm |
| <i>Pentax K</i> | 45.46mm |
| <i>M39 Zenith Screw</i> | 45.46mm |
| <i>M42 Pentax Screw</i> | 45.46mm |
| <i>Contax/Yashica</i> | 45.5mm |
| <i>Olympus OM</i> | 46mm |
| <i>Nikon F</i> | 46.5mm |
| <i>Leica R</i> | 47mm |

The toy shop

But what is better – old with character, or new with high performance? A simple uncorrected lens in a LensBaby can cost more than a complex high performance zoom. You may well put some of your digital shots through filters and processes which make them look like the result of a plastic-miscus Holga or Diana box camera successor.

Part of the appeal of older lenses is their unique blend of faults and failings. The 1930s Leitz Summar *f*2, for example, has low overall contrast but high microcontrast, in the centre of the field only, falling off into dark and soft edges and corners. It gives any full aperture image a unique look.



What is not justified is the \$500 price-tag on some old lenses. By all means, try a 28mm Hektor, a two-inch Wrayflex Unilite, a Corfield Lumax, or grab yourself a 135mm *f*1.8 Ernostar off a quarter-plate from the 1920s. They did indeed have such fast lenses, as Dr Erich Salomon used for his natural light shots of the cabinets and cabals of the era. Extract a Cooke triplet anastigmat from an Edwardian folder, try a Rapid Rectilinear from the 1870s, or a Petzval portrait lens of the 1840s. They all become very long-focus on today’s tiny sensors, but where they rarely produced a usable image on modern colour film, post-processing and raw conversion means they can work well on digital.

The UV factor

What ruined so many black and white and colour film shots attempted on really old uncoated lenses was their tendency to favour blue and near UV, accentuating haze. Digital cameras have sensor cover glasses which cut infra-red, but don’t need anything to reduce UV, to which they are not very sensitive. So, they don’t need sunblock!

If you have a good old lens, even an uncoated one, it may work well on a digital camera despite poor results on film. Pay great attention to lens hoods and consider using matte black paint to cover bright metal inside the mount which could reflect light from the sensor.

Scratches & coating

What digital can not do is overcome physical wear. The Summar lens mentioned earlier has a very soft glass for its front element. It was uncoated. Over time, early lens cleaning cloths (Selvyt not microfibre) have left a fine patina of scratches over many such lenses. These fine scratches plus pollution haze degrade the sharpness and contrast of fine detail more than individual visible marks or damage like chips into the glass.

You can get lenses polished and recoated by by Newton Ellis of Liverpool in the UK, and Focal Point Inc of Colorado in the USA:

www.newtonellis.com

www.focalpointlens.com

Adaptor sources

eBay and Amazon, through any web search, will produce many adaptors. The most expensive are Novoflex or the maker’s own (Canon, Olympus, Sony etc), followed by Metabones, then Kipon (who also make good tilt adaptors) and after that ‘generic Chinese’ by web mail order.

www.novoflex.com

www.metabones.com

www.dl-kipon.com

www.srb-griturn.com

– DK



WEST MEETS EAST

Imagine a group of teenagers from the USA made a great effort to travel to Afghanistan in order to promote peace with the Taliban – “*We’re just the same people down deep. Can’t we all just get along?*”

That’s pretty much how a youth group called the Peace Child Foundation was perceived almost 25 years ago in 1988.

Back in the 1980s, during the height of the cold war between the US and what was then the Soviet Union, a real fear of nuclear war drove this grass-roots organization to sponsor cultural exchanges between Soviet and American high school students.

Through musical theatre, the two groups would work together on a play which dealt with the historic tensions between the two superpowers. Local audiences were moved to tears, and the participants became the best of friends in the process. “When the kids grow up”, the organization’s founder said, “some of those kids will go into politics. And they’re not going to wage war on their friends.”

Naïve or not, I was fascinated by the Peace Child mission and the stories an early participant had told to me. I thought this organization was doing something brave, risky, out-of-the-box, important, and... obscure. Nobody here heard of them. So I decided that this story should be told. I got involved in the organization, learned enough Russian to be dangerous, and two years later became their “embedded photographer” in a subsequent exchange for the sole purpose of documenting one of these cultural collaborations and bringing the story home to American audiences.

The year was 1988 and the country we were going to visit was the Soviet Republic of Latvia.

Just one problem – I was a NASA engineer at the time, and

A twin-dissolve slide documentary project took Gary Friedman to the Soviet Republic of Latvia in the 1980s. It was a 150-film, month long self-set assignment to record a Peace Child youth theatre tour.



Peace Child US and Latvian cast, sunset by the Baltic, and 1980s power SLR versus Russian Zenith



as such you just can’t go to the Soviet Union on your vacation without raising a few eyebrows with the State Department. Okay, two problems – my father AND my brother both worked for a major defense contractor, and my trip to Latvia could have derailed both of their careers had I not handled this carefully.

My father, who historically has always supported my endeavors (even questionable ones like this trip) advised me to be as transparent as possible with the security teams of NASA and the defense contractor. Tell them where you’re going and why; take their traveler’s training which told me what to look out for – “*Their supplied translators will all be KGB!*”... “*KGB members will approach you*”; finally come home and be “debriefed”, tell them where you went, who you saw, and who approached you wanting to buy secrets.

The trip would last one month and I couldn’t count on buying any supplies (like film or batteries) once there. I took what seemed like the heaviest camera bag in the world.

It included one Minolta Maxxum 9000 (their “pro” AF camera); a 28-85mm *f*3.5 lens; an 80-200 *f*2.8 Apo lens.

Because the Maxxum technology was new and unproven, I needed to have a backup system too. So I took a Minolta XE-7 and three prime lenses. The Maxxum and XE-7 systems had no compatible parts – neither lenses nor batteries could be shared.

I packed 150 rolls of transparency film as this was destined to be a twin-projector slide show, evenly split between Kodachrome 200, Fujichrome 50, 100, and 400. I added 10 rolls of Kodak T-Max P3200, the highest ISO B&W film available at the time. I expected to be able to shoot in the worst possible light with this stuff.

Also included was a Sony Walkman stereo cassette

recorder essential for the audio portion of the story (see the URLs given below to view the video versions on-line). Completing the kit was a tripod and flash.

I will say I was a little smug being an American walking into Russia with the best camera in the world at the time, while seeing what passed for state-of-the-art Soviet cameras used by local photojournalists. The Zenit appeared to me like a German camera from 40 years earlier. I soon realized that their purely mechanical cameras would work in Siberia in the wintertime, a scenario where my high-tech camera would surely fail (batteries and electronics just don't work when it's that cold).

The trip was wonderful and went exactly as expected. The entire tour was coordinated and promoted by "Konsomul", the Soviet equivalent of the American Boy Scouts.

The kids had only ten days to put a show together, and then they went on tour to take their message to the people. The theatres were packed and the audiences reacted with enthusiasm and tears (just as I heard they would!). The teenagers involved became the best of friends, which is always what happens in theatre. At the end of the one-month tour, tears were the order of the day when it was time to depart.

The cultural exchange had achieved its short-term goals. Perhaps it did achieve its long-term goals too, since the Soviet Union has since dissolved, although it's difficult to ascertain whether these cultural exchanges had anything to do with that.

You can see the finished story on my website:

<http://tinyurl.com/8ugqexj>

This also brought American audiences to tears when I brought the story home. There are two different versions of the presentation – the "superior quality" view which requires a PC (not a Mac) and a plug-in for your browser. There's a lower-quality video version here:

<http://tinyurl.com/8rybm93>

(but the impact of the story is the same).



For some of the teenage actors, the final parting meant tears.



This is a picture of the famous Ferris wheel in Gorky Park. Impressive until you get in and have a really close look at one of the welds that held the wheel together...



Behind the Scenes

Back then the Soviet Union was a closed economy – the Ruble wasn't being traded on the open market, and so it was nearly impossible to import or export goods.



The Pepsi Cola company found a way around that – they bartered for Russian Vodka, which is why Pepsi was all over the Soviet Union in 1988 but Coke had no presence at all.



Baskin Robbins, the famous American Ice Cream store, also found a way to "import" a store into Moscow (this is before McDonald's managed to do it), but something inside the store got some of the kids quite upset. On a small piece of torn-off corrugated cardboard was a handwritten sign that said *Hard Currency Only – No Rubles*.

"How dare they offer this great product in Moscow but deny it to their own citizens!" exclaimed one participant, who then left in a huff. I stayed and watched a citizen of Moscow walk in, order in Russian, pay in rubles, and walk out.

What was going on? Simple: the Moscow citizen couldn't read the sign. It was in English. The handwritten sign was a symptom of the black market for "hard" (exchangeable) currency which was in huge demand and they didn't mind harassing all of the tourists in order to get it. Similar stories were heard everywhere. Normally tickets to the ballet were a few kopeks, the equivalent of about 80 US cents. But if you ordered your ticket in broken Russian the price jumped to ten dollars.

Soviet Shopping was a unique experience too. You had to stand in THREE different lines to buy anything: first you tell the clerk what you want to buy, and she hands you a paper which you take to the cashier. Then you take your paid receipt back to the original counter to collect your item. Abacuses replaced cash registers so business could continue during a power failure. And you don't really appreciate western grocery stores until you visit a country where everything – both animal and vegetable – is nearly dead by the time it hits store shelves.

X-rayed response

I never really had any trouble with any KGB or security folks on the trip at all until I returned to the US. Having all of my exposed but undeveloped film in my possession at the airport security screening, I opted for a hand inspection of my film so it wouldn't go through X-Ray.

Don't forget I had ISO 3200 film with me, which I had used to capture the reactions of audience members using only the light from the stage. Difficult shots to get!

So, they hand inspected my film bag... and then dutifully ran it through X-Ray afterward when I wasn't looking.

I was livid! I was so angry I started journaling every step of what happened because I was certain I was going to be suing somebody (the airline, the airport, and the lowest bidder who provided the monkeys in red jackets providing "security" at that time). I was



Repairing an XE-7 on location – try that with a DSLR! Below, why ISO 3200 was needed, and black and white. Audience attention and a young standing ovation, clapping too fast for the shutter speed.



so engrossed in writing and so focused that I ended up missing my connecting flight home.

Turns out the monkeys in red coats were right – the X-ray really was "film-safe" – even for high ISO films...

Running repairs

It's a bad day when your backup fails, but that's what happened on this trip – my XE-7 had an internal mirror knock loose (the Judas-window one which lets you see what *f*-stop you're using in the viewfinder). Fortunately, being an engineer, I had tools, glue, and duct tape with me. I took my camera apart at one of the rehearsal halls. I took care not to touch anything else and put the camera back together. Back home, while waiting for my slides to come back from development, I drove my camera bodies down to the local Minolta service center, just because I believe in preventative maintenance.

"Whoa! This exposure meter is WAY OFF!" said the service technician with a southern drawl. My heart sank. My backup camera (which I still used occasionally) was overexposing everything about two stops. It's easy to forget how stress inducing this kind of an event can be in the age of digital. But back in the days of film, you were shooting blind, and I had NO IDEA if the intense emotional trip I had just documented would come out at all. Were any critical shots ruined? Yes – but it was only about five rolls, a small percentage. I got over it. Minolta fixed it and also replaced the shutter of my Maxxum 9000 and gave me the old unit as souvenir. It's just amazing how intricate those mechanisms are.

In 1988 "multi-media" meant two slide projectors and synchronized music. I kept the narration live just to give the show a sense of presence. I designed and built a slide projector dissolve unit from scratch, including hardware and assembly language programming, to present the show to my specifications. You can read about how I did it in my 1987 book, *Control the World with HP-IL*, available here:

<http://tinyurl.com/8hv8p5j>

I've since returned to Latvia and will no doubt do so again.

– GF



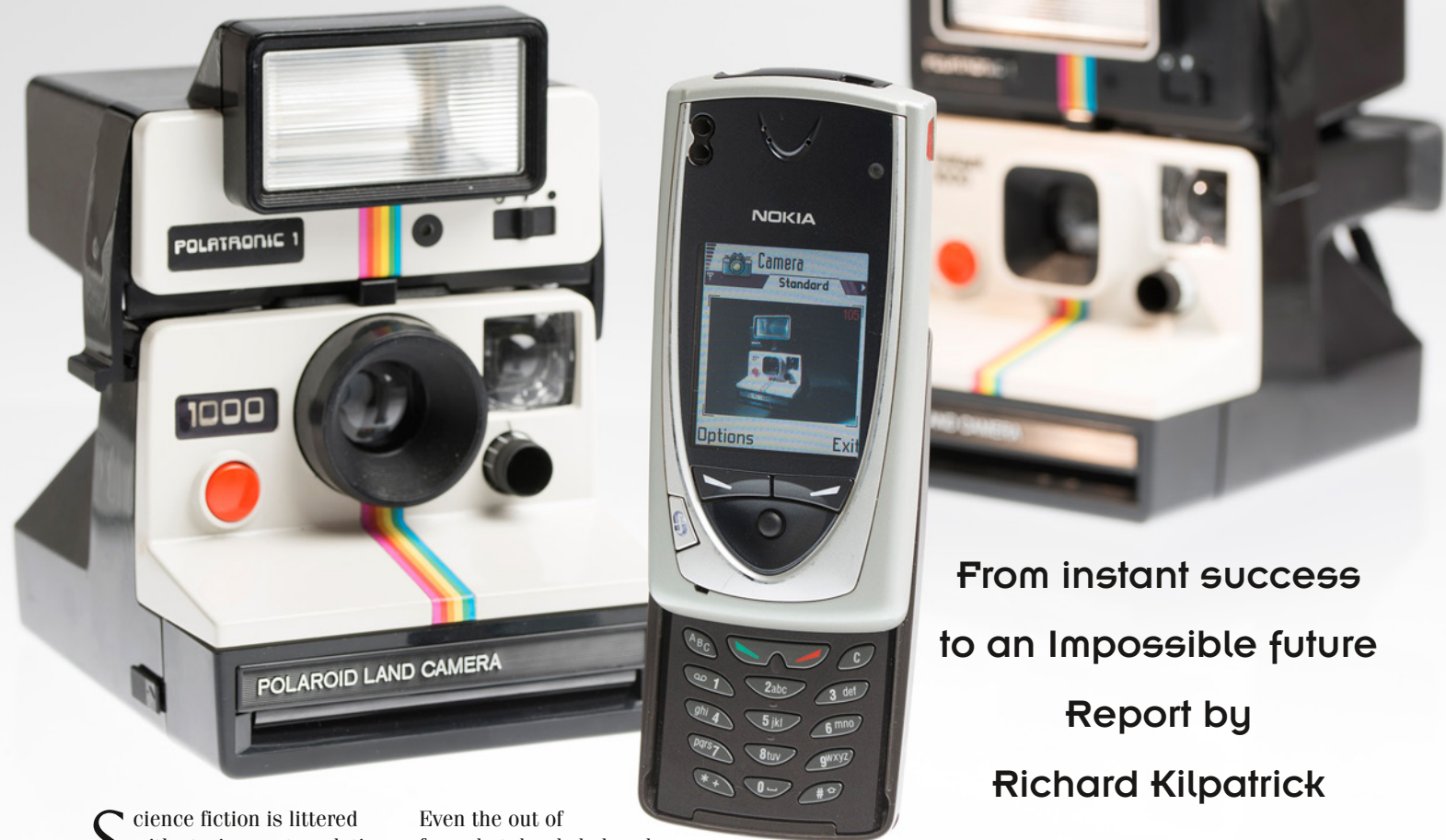
FROM THE
FRIEDMAN
ARCHIVES



Shortly after the First Gulf War (1990 – 1991), there was a “Welcome Home Desert Storm Troops” parade down Hollywood Boulevard in Los Angeles. I remember the Hollywood hopefuls that lined the streets of that parade – I could just imagine what was going through the soldiers’ minds as they marched down the route: “I went through hell and risked my life to protect THIS?”. Minolta 700si, 28-85mm lens, Fujicolor 100 negative film. The joy of shooting negatives in a high-dynamic-range situation like this is that I wasn’t too concerned with exact metering – I just shot in program mode, scanned the negative and placed the whites and blacks where I wanted them in Photoshop. The entire flag was supported and bordered by soldiers on all sides as they were carrying it down the street. It must have been uncomfortable, to walk hunched under the flag for the entire parade route. But they had been through far worse.

GENTLEMEN TAKE POLAROID'S

Nokia's 7650 of 2002 was their first cellphone with a camera, and also with instant image-sharing via the first MMS – Multimedia Messaging Service. A basic 640 x 480 sensor gave way to megapixels and Zeiss glass within a couple of years. Nokia became the largest camera manufacturer in the world: Polaroid's lost a huge market.



**From instant success
to an Impossible future**

Report by

Richard Kilpatrick

Science fiction is littered with stories contemplating the nature of the soul, with a common recurring theme being the ramifications of cloning. Be it a human without a navel, or an army of vat-grown aliens, individuality is an almost hallowed tenet of what makes humanity significant and spiritual.

And for centuries, until the advent of affordable digital photography, individuality was a fundamental component of a photograph. Clutching a packet of new prints from the local lab, the peel off sticker with "too dark", the awful orange cast from daylight film in a tungsten-lit room, it was all part of what made your photographic journey different.

Even the out of focus but dearly beloved subject was treasured, and the immediacy of the moment was as relevant to the amateur as it was the professional. Fixing it later was not an easy option.

So when that icon of accessible photography, Polaroid, ceased production of chemical media in 2008 a milestone was marked. Once the height of convenience – what could possibly beat having your image without the hassle of processing – digital's inexorable progress of infinitely replicated, duplicated and shared, fueled by the cellphone camera, ultimately resulted in the disappearance of 600 and 1200 series integral film. This, rather than the end

of Polaroid's other attempts to adapt to a changing consumer marketplace, was more significant to the photographer – it was the loss of a technology, rather than a brand.

Many would consider Polaroid's instant film to have passed on as a mainstream consumer format long before that; a resurgence of interest really caught Polaroid's new owners off guard, as they shut down the factory at the very moment the trend for Lomography and the unique qualities of 'cheap' cameras hit the mainstream. Nokia had become the world's largest camera manufacturer, with

the innocuous little 7650 of 2002 kicking off a revolution in image capture and distribution that caught many traditional photographic industries off guard – with generations clutching these tiny, multi-purpose devices what company executive could stand in defiance and argue the case for an expensive consumable media?

Doing the Impossible

Polaroid's decision to shut down manufacturing was possibly short-sighted. It was definitely short lived, though it had consequences for what could be done to follow up

the established media. The molecules used for the colour dyes had ceased production and needed a maturing period to produce; an unacceptable delay for Dr. Florian Kaps and Andre Bosman – some would say the ‘saviours’ of instant photography when they founded The Impossible Project in October 2008.

Despite years of research and production under Polaroid, and even owning the machinery and occupying part of the factory that originally produced the films in the Netherlands, Impossible had to start over. A new negative and formula to recreate something that took Polaroid almost 30 years to perfect – and without the freedom of a full palette of process and chemistry, due to stringent 21st century environmental controls that Edwin Land and his team would never have dreamed of. Impossible’s media is not reverse engineered, it’s a new process, and behaves differently.

In 2010, Impossible relaunched Integral film. The familiar pack, containing batteries (a new technology), eight envelope-style film sheets, resurfaced and brought discarded, worthless cameras back to the attention of the photographic community. The popularity of applications like Hipstamatic, Instagram and so forth almost certainly encouraged sales. Now the Polaroid camera is a fashion accessory with credibility and a greater perception of integrity than the software equivalents.

Covering all the bases

Polaroid Integral Film came in two formats – the square SX-70/600 and the 3.6 x 2.9” Spectra/Image System. Previous systems used the pull apart rollfilm/packfilm, and that is not currently being reproduced, though Impossible do sell old stocks of 100 pack film when they find it, repackaged. A project to reintroduce the classic 10 x 8 peel apart instant media is approaching completion, with the equipment moved from the USA to the Netherlands factory



Polaroid manipulated impressionism

Dennis Hylander created a portfolio of manipulated SX70 prints from the late 1990s until supplies became hard to obtain, gaining many awards. His small prints were scanned and made into large giclées, and have sold well through London art galleries. French and Spanish scenes ceased to be fixed in date and time. © Dennis Hylander.

in 2009 and early field testing bearing results. A 10-sheet pack will cost €169.

As Polaroid’s media evolved, so did the cameras. That first SX-70 was a folding manual focus device expecting 100 ASA media, with a cheaper series of plastic box cameras (most typically the white and striped 1000 series). When 600 ASA media was developed, a new breed of camera came along to suit. Finally the Image System (also known as Spectra, 1200) brought in a new aspect ratio, though the cameras would not last as long as the 600 range.

Where Polaroid had Time Zero, 779, many variants of media for medical and specialist use (such as grid film for the Medical 1200si), Impossible offer Silver Shade and Colour Shade. Silver Shade is monochrome, with fast development and poor long-term stability unless used with the dry-age kit, and Colour Shade is slow

to develop (4-20 minutes), has limited manipulation capability and generally improves with age. At this stage, the media could almost still be considered to be in beta – successive generations display improvements in colour and stability. The turquoise opacity layer of the original integral film is now a striking blue – yet you don't want to catch a glimpse of it, as the image remains sensitive to light as it emerges. Like the snap-back tongue added to the 600 series cameras, users of the SX-70 and SLR-680 should shield the emerging photo from light. I use the protective sheet ejected by the film pack, reinserting it after every shot.

The media remains open to some creative techniques – emulsion lift and physical manipulation. Emulsion lift, whilst one of the harder techniques to master, is the one which will yield the fastest 'predictable' result for the budding Polaroid artist; transferring the captured image from its celluloid prison and depositing it on the media of choice – usually rag paper – with the inevitable distortions and disruptions the thin layer suffers.

Physical manipulation, where heating the integral print and physically moving the colour dyes around in the emulsion before it's fully set (specialised wooden tools are made for this, such is the popularity of the technique) is not as successful as with Polaroid's original Time Zero media. It's possible within the time taken for the emulsion to set, with applied heat, but I've found the colours are not as mobile as Time Zero techniques demonstrate. As the chemistry evolves, Impossible have this as one of their requirements for the media, so later generations may well get closer to the classic look of manipulated Polaroid.

With the current range, the SX-70 compatible PX70 is a slightly higher 125 ASA sensitivity than the original target of 100 ASA. As such, it can either yield slightly overexposed images,

can compensate for aging cameras, or be adjusted for accuracy with the dark/light control. PX100 Silver Shade (monochrome) is also made.

The PX600 media, for the 600 box cameras and SLR 680 folder as well as the last Polaroid "One" 600 models, operates at a higher equivalent ASA (unsurprisingly, 600) and originally had a tab to prevent it being used in the earlier SX-70 bodies. Impossible's film comes in packs which can be used in either, with an accessory ND filter for 600 in an SX-70 body.

PZ media for the Image System cameras is also available in PZ600 Silver Shade and PZ680 Colour Shade versions. For serious photography, the Image System offers the greatest control and versatility with the rare Minolta/Polaroid Instant Pro models featuring multiple exposure, manual focus override and glass lenses.

A lesson in branding

In the 1930s, Polaroid's existence was entirely product driven. Dr. Edwin Land was an astute businessman and even an impressive salesman, yet much of this performance was driven by his absolute belief in the products he had created. A polarising film created by 'teasing' molecules into the correct orientation replaced an expensive, troublesome process of growing flat crystals, and opened up a market for consumer and military products alike – the popular sunglasses and 3D glasses for cinemas being ubiquitous in 1950s America.

That expertise and experience with celluloid substrates, and the question "Why can't I see them now?" from his daughter, lead to the creation of instant photography. Over two decades the roll and packfilm "peel apart" products would evolve, existing in everything from the Polaroid 95 folding camera, to cheap "Swinger" box cameras and high end studio systems in formats up to 24 x 20"; complete systems and packages evolved, with sticky-



Autofocus was the '70s dream for camera manufacturers. Polaroid's early start used Sonar to great (mostly) effect – shooting through glass was impossible, but the cameras could focus in total darkness, capturing those classic party moments without the shocked/dazzled expressions from pre-flash or AF assist lights so prevalent today. Background: Konica's 1977 C35 AF, the first phase-detect camera based around Honeywell technology.



Copies of Polaroid's expensive and excellent UK magazine, from 1990. P magazine was edited by Peter Lester, formerly editor of SLR Camera magazine, and reflected the brand's status.

backed picture postcards, frames – even at the end of Polaroid's active development of integral film promotional items used the distinctive print, with items like the 600 Radio powered by an empty film cartridge and with a space for a square-format print to be displayed.

Land's influence on the firm was immense long after founding. The SX-70 integral film and distinctive folding SLR camera was an engineering and design marvel; with an Apple-esque launch campaign by the Eames' this was not the cheap plastic thing Polaroid would come to be associated with as the

SLR boom dominated the market, but an expensive, high status product with many innovations. Even before the SX-70, Polaroid understood the power of the brand, with packaging designed by Paul Giambara that carried a strong rainbow motif – another common link with Apple, and perhaps the young computer firm's imitation was genuinely sincere flattery. Jobs himself considered Land a hero.

Not everything that Land turned his hand to was a success. Responding to the ciné market development of an instant transparency was inevitable, yet by the time Polavision hit the market

in 1977 magnetic tape was entering the home – and with the combined technologies of the CCD and Bayer's Colour Filter Array allowing one CCD to generate an RGB image, the camcorder would soon follow. Polavision's dark image, low sensitivity and bulky TV-like player device incurred massive losses, and caused Land to be forced out of his company; later developments would give 10,000 ASA scientific recording film and a range of transparency media.

The 1980s and 1990s saw fewer innovations. Tentative footsteps into digital technologies, from the Polaroid Palette and interesting hybrid studio systems that captured a digital frame, then printed onto 5x4 sheet film for passports, and a flirtation with the repro market through some technically good desktop scanners, were primarily feeding specialist demographics. The consumer would continue to be fed a succession of cheaper, brighter integral film cameras such as the 1997 "Spice Cam". Polaroid's first entry into full digital imaging, the PDC-2000, was a promising high-end entrant that ended up costing too much for too little – though it retained Sonar AF and a form factor completely devoid of previous influences, fully embracing the possibilities of digital. Much of Polaroid's continued presence was on the back of patent battles and a \$900m settlement from Kodak – the two firms that had worked closely together would be torn apart by Kodak's attempt to enter the instant film market, and neither Edwin Land, nor George Eastman, would live to see the conclusion.

After 2001, Polaroid's brand has inevitably suffered the dilution that is unavoidable after asset sales and bankruptcy. The equity of the name, like the value of a currency, seems hollow when the pile of gold underpinning it has been sold or lost. Adorning almost anything vaguely imaging related for a period following the 2001 sale – though not, sadly, the excellent



Contemporary or nostalgia? Above – a genuine Polaroid SX70 print, as taken by a pilot landing reader Dave Robson and his wife Jacquie on the Tasman Glacier of New Zealand's Southern Alps, in 1975. Below – a modern 'retro' product of the Impossible Project, PX600 Silver Shade print film, faded slightly from exposure to air and light, taken in London in 2011 by Richard Kilpatrick.



film scanners and clever interchangeable lens, sonar AF equipped PDC 2000/3000 (Polaroid Digital Camera) digital system – only one of the licencees demonstrated any grasp of the link between innovation and the venerable name.

World Wide Licenses Ltd came to the attention of Polaroid and digital enthusiasts alike by virtue of being the only firm outside of Sigma to release a Foveon-equipped camera. When announced in 2004, the little x530 promised some industry firsts – the first

Foveon camera with Live View, and movie recording, the first with an integrated zoom lens, and the first Foveon compact. The 1.5Mp x3 sensor was somewhat behind the curve for the compact market, now sporting sensors > 3.3Mp, but as with the Sigma SD9 and 10, offered something unique in that "RGB" capture per pixel. It also captured raw files at a time when a compact doing so was almost unheard of, and JPEG files when Sigma's own SLRs couldn't. It still exceeds the (absent!) video capabilities of 2012 Sigmas.

The continuity between WWL and Summit Group is interesting – as the current licensee of the brand, Summit Group Japan's President Giovanni Tomaselli is also managing director of WWL.



The Polaroid Z340 uses a digital camera (14MP with 4X digital zoom) and outputs on ZINK paper to a 3 x 4" print



Whilst the X530 was not a success on the market, in part due to a supply issue over PSUs and batteries, the later ZINK-based Pogo printer and cameras show a real determination to keep Polaroid relevant. The latest releases, the Z340 and GL10 printer, use a 4 x 3" format, though the 2 x 3" sticky-backed media is still supported with a new Z3200 camera.

Impossible's efforts have saved the product many still associate with Polaroid, who are working with Impossible. The real results of this have yet to be seen. The brand itself needs a strong new identity to be relevant to the 21st Century and perhaps the Z340 can show the way.

– RTK



CAMERACRAFT

REARVIEW

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



UK-based Tim Wallace has won many awards, most recently the 2011 International Advertising Photographer of the Year and UK Motor Industry Photographer of the Year. “This shot was done for our client Aston in the UK”, he says, “and will be used for marketing purposes aimed specifically at Europe and Switzerland.

“The image was shot at night using a Nikon D3s using a longer than normal 0.3s exposure (*f*6.3, 24-70mm at 24mm, ISO 200). The car was lit separately using three Elinchrom Ranger packs with heads fitted with 100 x 40cm strip soft boxes.

“Final work was done in Adobe Photoshop CS6 to blend in the colour temperature correctly across the scene and enhance detail

in the mid-tone areas, with some localised shadow increases to boost the overall depth of the image.”

The sort of techniques used in this shot can be seen online at Kelby Training where there are four in-depth video classes covering both lighting with multiple heads on a car as well as post production techniques.

See: <http://kelbytraining.com/author/twallace/>

It's also well worth dropping in to Tim's own website:

<http://www.ambientlife.co.uk>



Aston Martin DBS 2012 shot in Estavayer-le-Lac, Switzerland, by Tim Wallace.





River crossings – above, sunrise over the Tyne bridges, Newcastle Gateshead quays, by Paul Murphy. A two-second exposure was needed at *f*11 (ISO 100) with 16-85mm Nikkor on D7000, at 18mm. Website: www.incidentlight.co.uk. Below, turbulence and smooth water on either side of stepping stones. Treacherous leaves added from a box collected the previous Autumn. By Peter Karry, Alpha 700, lens at 45mm, ISO 200, and an exposure of 1.3 seconds at *f*16. River Mole near Dorking, Surrey.



CAMERACRAFT REARVIEW



Stephen Power set out in 2011 to author a Liffey Press book, *Traditional Notes*, with photographs and stories covering every aspect of Irish traditional music. He has taken this further, creating picture library Diddle Eye Music Photography in partnership with music journalist Sean Laffey. In 2012 his growing reputation secured him a countrywide commission for Tourism Ireland. Stephen is a tutor with the Photography Institute www.thephotographyinstitute.co.uk and well known as a writer. He will be contributing to future issues of *Cameracraft*. See his website www.adareimages.com. Above: bodhrán maker Malachy Kearns. Below: Alec Finn of De Dannan, who made the bouzouki a part of modern Irish folk music, in his castle home of Oranmore.





*Georgette by Bea Blauwendraat, Utrecht
Hasselblad H1 with iXpress digital back
www.beablauwendraat.com*

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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.