

# INNOVA

## Innovation News



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### **NEW! FIBAPRINT® ULTRA SMOOTH GLOSS - REVIEWED BY DOUGLAS MENUEZ**

The newest addition to the FibaPrint family. World famous Doug explains why it is a major advance in digital photography.



### **DAVID OSBORN WILL SHOWCASE ON THE INNOVA STAND AT PAPERWORLD**

David Osborn's stunning panoramic monochrome prints of the English landscape, on his paper of choice - FibaPrint® White Gloss.



### **INNOVATIVE PRODUCTS WE ARE INVOLVED WITH**

HP Designjet Z2100 and Z3100 printers add a new choice to Digital Fine Art printing. Digital Sample Book brings paper to life on the web.



### **THE DIGITAL DARKROOM GROWS UP - NEW GENERATION PAPERS**

The second part of our straight talking report into how these papers are made and the benefits of a digital modern day 'barite' alternative.

**The Digital Art People - Seeing Digital Differently**

[www.innovaart.com](http://www.innovaart.com)



## DAVID OSBORN and INNOVA ART at PAPERWORLD

Photographer David Osborn is more used to covering the story than being the focus of it, but as he takes centre-stage on the Innova Art stand at this year's show, he is helping to develop the new angle on photography's biggest story in recent years.

Leading photographers are switching to digital because it gives them the speed, efficiency and, above all, the quality of output they require. In Innova Art's award-winning FibaPrint range, photographers have a digital photographic paper that matches and even outperforms the traditional alternatives. Osborn's stunning, 16 x 48inch, limited edition digital images of the British landscape, on show on the Innova stand (Hall 1.2, stand B6o) prove as much.

*'My paper of choice is Innova Art's fabulous 300gsm FibaPrint Gloss, Max Black paper. The images are printed on an Epson 9800 with K3 inks – a combination of printer, ink and paper that produces prints superior to the finest quality darkroom fibre print in terms of archival performance, dMax and tonal contrast range,' says Osborn.*

*'Crucially, the prints retain the look and feel of a traditional darkroom fibre print – no longer are digital prints limited to the matte watercolour look. FibaPrint Gloss bridges the last major hurdle between traditional darkroom prints and digital photography.'*



A veteran press photographer and former picture editor, a commercial photographer who counts BP, Ove Arup and BAA among his clients, Osborn has done it all, from photographing heads of state to nine months covering the bloody fight for independence in the southern Philippines. Being a great photographer, he explains, is as much a state of mind as having a sharp eye or being technically proficient. 'A photographer has to fit in as quickly as possible. The faster he does this, the sooner he can begin taking pictures. The more diverse experience the photographer has, the higher is his chance of doing so.'

Osborn is as receptive to new processes and media as he has been cool and collected in responding to unfamiliar environments and experiences. Though his panoramic images of Britain he records a classic landscape charged with the weight of history, the means through which he celebrates it are among the most technologically advanced available. The results are worthy of any front page.

## DIGITAL SAMPLE BOOK - a visual exploration of inkjet paper



[www.digitalsamplebook.com](http://www.digitalsamplebook.com)

Look on-line to compare the performance of different inkjet papers with the new interactive Digital Sample Book developed by the world-famous Rochester Institute of Technology (RIT), USA.

*'The written descriptions provided by manufacturers and suppliers can't convey the particular qualities of all the inkjet papers that are on the market. More coherent and dynamic visual tools are needed,'* says research scientist James Boatright of RIT.

The Digital Sample Book at [www.digitalsamplebook.com](http://www.digitalsamplebook.com) allows the viewer to properly analyse papers on-line, viewing the paper surface, tone, texture and sheen from different perspectives, lighting angles and magnifications. 'It's the next best thing to holding a paper sample in your hand,' says Boatright.

As a major supporter of the research projects underway at RIT, Innova Art is the first paper manufacturer to have submitted its papers for testing. Visitors to the site can look at the brightness, contrast and colour of the same image printed onto Innova FibaPrint® White Gloss and Innova Smooth Cotton High White at three different levels of magnification and lighting angles. As other paper manufacturers submit their products for analysis, the site has the potential to become a one-stop resource for any paper user.

# FIBAPRINT® - THE NEXT GENERATION OF PHOTO PAPERS

Small is beautiful. You don't have to be the biggest to have the best ideas, says Wayne Connelly, as Innova Art's award-winning FibaPrint Gloss range proves

At one time, photography was simple. You exposed photosensitive film to a light source, transferred the image to a light sensitive paper, then fixed, washed, dried and mounted it. And admired it.

Nowadays the process, if not the principle, has changed radically (though in truth the past was never as simple as it is painted). The arrival of digital imaging technology has transformed the way in which images are created and stored. It has also had a dramatic impact on the media on which they are printed.

Nanotechnology may be a buzzword, but in many fields it remains an aspiration, with little to show in practical terms. In the field of photographic digital media, however, small really is beautiful. Heavy investment by some of the biggest players in paper manufacture has meant that digital media is one of the most successful commercial applications of nanoparticle technology.

But where does that leave the smaller players? In Innova's case, at the leading edge. FibaPrint Gloss®, Innova Art's fibre-based gloss photo paper awarded Best Independent Inkjet Paper by the Technical Image Press Association (TIPA) almost immediately it was launched because it delivers such astounding black and white prints – prints that exhibit the same deep blacks, subtle tonal gradations and long lasting results of the darkroom barite papers of old.

The lesson of digital technology is that you don't have to be the biggest to have the best ideas. You have to listen to your customers. You have to understand the science.

## Sure and steady

Three years ago, when we at Innova Art began work on a fibre-based gloss photo paper, our target was to combine digital paper printing technology, at that point associated with matte inkjet papers only, with the right chemistry to produce a glossy digital art paper which gave optimal reproduction of photographic – and especially black and white – images.

The first step was to find the right paper, a task that was made simple by modern improvements to Titanium dioxide. We were confident our choice of a smooth, fibre-based paper coated with Titanium dioxide, rather than Barite, would deliver because Titanium dioxide is now at least as good, if not better than, the Bariumsulfate used in barite papers. We opted for a version with optical brightener and another with none in order to accommodate our customers' tastes both for warmer, natural and bluish, brighter whites.

Step two was to develop the right microporous inkjet receptive coating. We knew that many existing microporous inkjet coatings were very brittle and could possibly crack on a flexible, fibre-based paper. The coating had to be robust enough to withstand light and air pollution. Above all, it had to produce on the page the dense blacks and the superb greyscale gradations being promised for the most modern ink sets.

We knew that the right nanoparticle of the coating had to be chemically prepared and later dispersed to produce a distribution of around 100-120 nanometers in water. The development and production of the particle itself was a complex and costly process; remember, a nanometer (nm) is one thousand millionth of a metre. Larger particles of more than 200nm we found out drastically reduce the gloss of a coating and were avoided.

For our polymeric binder, we chose a derivation of the Polyvinylalcohol polymer, which had the attributes we were looking for: it could be used in very low concentration and it offered optimum stability when exposed to light and air. Note, the proportion of pigment to binder in our coating is as high as ten to one or even higher, so it is hardly correct to speak of polymeric coatings. In its dry state less than ten per cent of the coating is polymeric in nature.

## The right stuff

Finally having found the right elements, we lacked only the means to combine them. This was one of the most crucial challenges we faced: how to combine an alkaline to neutral, flexible, open structured fibre based paper with an acidic, inflexible, perfectly regular, microporous coating? Our solution – ingenious we think – was to develop a barrier layer. While the chief ingredients must remain a secret, its key function is to seal the paper surface with a pH barrier. This, however, is only half of the story. During the application of the liquid microporous formulation onto the barrier layer, we believe, clusters of oxidic nanoparticles gather on the surface, creating a regularly formed first layer on which additional nanoparticles form a crackfree but highly porous layer of 30 to 35 gsm.

The result is a fibrebased paper gloss inkjet paper that, combined with the most advanced inksets, produces outstanding images. The TIPA Award for Best Independent Inkjet Paper is a measure of the rapturous response it has received from photographers worldwide.

## Back to the future

In creating FibaPrint Gloss®, we looked back to the past – back to traditional photographic papers as the standard we wished to match, back to timeless photographic images as the measure of what we hoped contemporary photographers could aspire to using our papers and digital printing technology. Combined with the very latest in scientific advances, we believe we have created a 21st-century photographic paper of the first rank.

## HP Launches Designjet Z2100 and Z3100



As the biggest player in the printer market, it was only a matter of time before Hewlett Packard launched a large-format printer to challenge its rivals in the digital photography and fine art sector. And the HP DesignJet Z2100 and Z3100, launched at Photokina, Frankfurt, last year, look as if they may offer a major advance.

The Z2100 model incorporates an 8-ink system with three levels of black inks plus cyan and light magenta and the Z3100 model, a 12-ink system with four levels of grey and black plus a gloss-enhancement system. The new HP Viverra Pigment inks produce an exceptional colour and tone, claims HP. The Z3100, in particular, will revolutionise black and white inkjet photography, says HP.

A special feature of both printers is the in-built spectrophotometer, which means that consistent colour management is assured. Both models include a built-in web server to enable the remote control of the printer and the sending of work over the Internet. HP has launched a range of art papers for use with the Z2100 and Z3100. Innova Art is working closely with HP to have their FibaPrint® papers endorsed for use on the new printers.



## DIGITAL PERFECTION - New FibaPrint® Ultra Smooth Gloss 285gsm

**Paperworld sees the launch of Innova Art's FibaPrint Ultra Smooth Gloss. World famous photographer Douglas Menez explains why it is a major advance in digital photography**

Since my days documenting the invention of digital printing software and technology, I've been watching and hoping for a substrate that would match the intense pleasure of pulling a final print out of the fixer – Innova FibaPrint® Ultra Smooth Gloss 285gsm is it, the miracle I've been waiting for. With deeper blacks than any silver paper left on the market, this paper represents for me a rebirth of the darkroom.

Why has it taken so long for someone to recreate the look and feel of a traditional 'wet' silver paper? Apparently the theory was simpler than the practice – it was very difficult to create a semi-gloss surface without a resin coating. Meanwhile the entire photographic community seemed to have adopted a watercolour art paper as the only viable alternative for inkjet fine art printing. Even with technological advances, our only option seemed to be high quality textured papers, some smooth, some with more tooth, but all light absorbing, producing flat looking images. I used these papers in art school for etching, screenprinting and other forms of printmaking, but not for photography – not unless I was experimenting with applying your own emulsions or unusual projects. They could never provide the blacks or depth of a semi-gloss silver paper.

Some photographers now prefer these digital watercolour papers and I agree that they can be beautiful and appropriate for certain images. I love their texture and natural feel, but the light absorbency usually leaves me feeling short-changed. I don't get the spark or visual pleasure of a semi-gloss, reflective surface of a true photo paper, with deep blacks and strong contrast.

I have a powerful addiction for the traditional. I love the dry darkroom and the power of digital technology, but I also believe it's important to build on the traditions and craft we grew up with even as we reinvent the past. The darkroom and the culture of black and white in printing in particular are my roots. Forget your roots and you forget who you are.

I grew up with Polycontrast F double weight, but also loved printing on Kodabromide, Agfa Portriga rapid and Ilford Multigrade, and these papers provided rich blacks, endless grayscale and the depth. Look into a silver print and you are pulled in by the glorious continuous tone. These papers are semi-gloss papers and they are paper, not plastic. Aesthetically, plastic resin coated papers to me are death!

I spent a lot of time in the labs of Adobe and Electronics for Imaging and worked with beta versions of Photoshop in the late 1980s. I printed test portfolios on everything from a Tektronix wax printer to Supermac's dye sublimation printer.

With fellow-photographer David Cohen, I published the first book that used Photoshop to colour separate the images. Another photographer, Rick Smolan, and I had one of the first Barney scanners and did beta development work for Kodak with the Photo CD system. When Epson came out with their photo printers I began searching in vain for something similar to the semi-gloss I grew up with in the darkroom. In the search for something – anything – I adopted the beautiful papers from Legion, Hahnemühle and others, but if I wanted a semi-gloss inkjet the only choice was a resin coated paper – death!

Which is why I feel so strongly about Innova's FibaPrint® Ultra Smooth Gloss 285gsm. Now there is a true alternative. A 21st-century answer to a 30-year old problem. A solution that means digital images can now match the peerless quality of silver papers.

[www.innovaart.com](http://www.innovaart.com)

[www.menez.com](http://www.menez.com)

## New Innova Branding



Innova Art announce a re-branding of all their retail packaging for box and roll formats. The elegant designs are split into five colour coded ranges; FibaPrint®, Photo, Fine Art, Canvas, and Book Art paper. Easily distinguishable, they are designed to make the choice of paper easier for the particular application. New branded boxes and rolls will be available from early 2007.

## The Digital Art People - Seeing Digital Differently

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