The Eyes Have It

At Photokina, Cologne, and Photo Plus Expo, New York, John Henshall finds that medium format digital is not only alive and kicking but flourishing in the maturing digital marketplace.

When Canon introduced its **EOS 1Ds Mark II DSLR** at Photokina in 2004 it looked as though the writing might be on the wall for the medium format back manufacturers.

The EOS 1Ds Mark II has 16.7 million pixels on a full-frame (24 x 36mm) sensor which produces 47.6MB files of 4992 x 3328 pixels. Those are enough for a 25 x 16.6 inch (63.4 x 42.3cm) print at 200 pixels per inch or a 16.6 x 11 inch (42.2 x 28.2cm) print at 300ppi.

Two years on, it seemed the time might be right for Canon to introduce the successor to the 1Ds Mark II at **Photokina 2006**.

Rumours abounded. Would it be in a body similar to the EOS 5D, with a similar interface, developed from the one button accessibility of the EOS 20D? Would it employ a 22 megapixel sensor – a 24 megapixel sensor – or even a square sensor?

A square sensor in a 35mm-style DSLR body? This is not as strange a notion as it might at first seem seem. Lenses, after all, produce circular images, not rectangular ones, and a square is the largest rectangle which it is possible to make from a circle.

So, come **Photokina 2006**, I rushed to Canon's press reception at Koeln's Messe to see the new Canon DSLR.

But there was no new Canon DSLR. Just the EOS 400D, which had been announced prior to Photokina.

It seemed that the Scandinavians had not even been asked to translate any menus – usually a sure sign that a new product is on the way. Not many Japanese speak Danish, Finnish, Norwegian or Swedish, it seems, and so they need help with the translations.

The whisper was that the new camera wasn't quite ready and may be launched at **PhotoPlus Expo** at the Javits Center in New York (2–4 November). **www.PhotoPlusExpo.com** This – together with the fact that Photokina is so big that it is impossible for one person to see everything and I had not even seen the Hasselblad H3D – convinced me that a trip to New York was worthwhile.

Roof structure at Jacob K Javits Convention Center

ABOVE LEFT: Martin Parr gave a very witty two-hour presentation about his work to an audience of about 400 – mainly American photographers – all of whom seemed to have no problem understanding Martin's dry English humour. Maybe we have Ricky Gervais and others to thank for the US acceptance of British Humour – or perhaps I should say 'English Humor'? ABOVE RIGHT: Henry Wilhelm of Wilhelm Imaging Research, www.wilhelm-research.com, with friends beneath Martin's prints. These were printed on the HP Designjet Z3100 44-inch 12-ink printer, which Henry's tests show to have a life expectancy of 200+ years.

Although New York is many times further than Cologne, the combined cost of airfare and hotel is about the same. And New York is New York, with Broadway shows and even the New York City Marathon laid on after the show.

PhotoPlus Expo is quite unlike Photokina. For starters, it is a manageable show, which you can cover at a leisurely pace. It is produced mainly for the many professional photographers and designers in and around New York.

What makes PPE so special is the phenomenal range of seminars by some of the world's greatest photographers. These are organised by **Photo District News**, **www.PDNonline.com**, a US professional photography magazine.

The seminars fall into eleven tracks: Lighting Masters, Stock Reports, Image Makers, Photo Markets, Marketing, It's Your Business, Technically Speaking, Input/Output, Photoshop & Color Management, Workflow and 'Hands-On'.

Within these tracks, the sessions range from 'Digital Wedding Photojournalism' by Denis Reggie, 'Perfect Portraiture, Perfectly Simple' by Bambi Cantrell, 'The Creative Digital Darkroom' by Katrin Eismann, 'High-End Digital Workflow: From RAW to Stunning Print' by Stephen Johnson, 'Color Management and Photoshop CS2' by Andrew Rodney, 'Light, Color, Gesture and New Work' by Jay Maisel, 'Adobe Lightroom' by Julieanne Kost to 'An Evening with Martin Parr' – to mention but eight from a complete choice of over a hundred.

It's fair to say that the PPE conference is the most intensive learning event in professional photography anywhere. Attendance will undoubtedly stir your creativity while you learn the latest techniques from many of the world's biggest names in photography.

The other wonderful thing is the other interesting photographers you meet at this event.

In the queue – er, 'line' – for a coffee and tasty fresh blueberry muffin, at the Starbucks concession in the Javits Convention Center, I met **Shelley Lake**, a fine art photographer based in Easthampton, Massachusetts, who had bussed down just for the day.

Shelley uses a **Better Light** www.BetterLight.com scan back to produce exquisite images – many of them panoramas – which she prints on an **Epson 9600** and sells online at www.ShelleyLake.com.

My enthusiasm for the new **Hewlett-Packard Designjet Z3100 Photo** 44-inch 12-ink printer spilled over to Shelley, who is now considering buying one.

I had the first Z-series printer in the UK – a prototype 24-inch 8-ink Z2100 model – sent over from HP in Barcelona for the **Royal Photographic Society**'s Digital imaging Group's Digital Day at Rugby on 29 October, attended by over 400 photographers and designers.

This printer now has to be returned – but not until my production model Z3100 arrives. See www.ChipShopOnline.com.

In the line (queue) for the Martin Parr event I met two other charming American photographers – **Laurel De George** from New York and **Sheila Bernard** from Verona, New Jersey.

Take a look at Sheila's website at www.Sheila-B.com to see her strikingly bold images. Sheila is another American fine art photographer whose work sells widely.

Maybe it's just the accent (or lack of one) but it does the old heart good to note that American women are so ready to chat to a 'mature' Brit. There does not seem to be any ageism in the US. Or maybe it's just because I've never really grown up?

The same has been said about **Elliott Erwitt**, whom I bumped into at the **Martin Parr** evening.

The Sunday Times Magazine ran a ten page feature about Elliott on 20 August, describing him '… like a little

boy who has aged but not really grown up rather than a veteran photojournalist approaching his 80th year.'

Elliott's new book **Personal Best** has just been published by **teNeues** at £6.52 per pound. Elliott is quick to point out that the book weighs no less than eleven and a half pounds. ISBN 3-8327-9162-0. The book costs $125 in the US, £76 in the UK and €98 in €urope.

You can see the work of this Magnum great at www.ElliottErwitt.com. Note the opening splash screen of his website: 'Elliott Erwitt – for life-like snaps'. Elliott Erwitt has no pretensions.

On the exhibition floor at PhotoPlus Expo I made a beeline for the Canon booth to see the new **EOS 1Ds Mark III.** Of course, it wasn't there but there was a new whisper: **PMA Las Vegas 2007** (8–11 March). Manufacturers seem less inclined to wait for the big shows these days though, so it could be anytime. Or it could be something completely different.

No new top-end product for over two years does mean that we have reached a welcome plateau in DSLR design. And prices have dropped significantly.

Of course a lower-end DSLR is launched just about every month now but these are to satisfy the growing market in 'DSLRs for everyone'. Some of them may be useful as lightweight cameras or inexpensive back-ups but they could hardly be described as state-of-the-art professional tools – though the gap is narrowing.

The launch of the **EOS 1Ds Mark II** in 2004 really did make the medium format digital market sit up and take notice.

This is a DSLR which has better resolution than a 35mm film camera. I know, because I have used one for two years whilst – at the same time – I have been scanning my back-catalogue of 35mm transparencies. Boy I have some soft trannies.

The softness is not due to my dodgy focussing though. It is due to using film which simply does not have the inherent sharpness.

The transparencies shot in television studios using **Kodak High Speed Ektachrome Type B** (tungsten balance) have an attractive softness, of both detail and colour.

Kodachrome 25, on the other hand, is bitingly sharp but only likes good light and the processing seems to have been far more variable than I remember.

With a good lens, the Canon EOS 1Ds Mk II even beats Kodachrome 25.

Note that I say, 'With a good lens' for herein lies a problem.

Twenty or more years ago most lenses were 'primes' – of a fixed focal length.

Today, most lenses used on DSLRs are zooms. Such lenses inevitably have many compromises. Zooms simply are not as sharp as the best prime lenses.

In addition to its role as probably the best DSLR, the Canon EOS 1Ds Mk II also doubles as a lens tester and reveals lens shortcomings – including some of Canon's own 'L' series ('Luxury') pro lenses.

It is worth bearing in mind that every lens is individual and different. Some would sail through quality control, others would barely scrape through. But we need the best.

Zeiss has now produced a range of manual focus **prime lenses for Nikon F** mount. Seen clockwise from the camera (with Distagon f/2.8 25mm) is a Makro-Planar f/2.0 50mm, Distagon f/2.0 35mm, Planar f/1.4 85mm, Distagon f/2.8 25mm (without hood) and Planar f/1.4 50mm.

Zeiss primes for Nikon F

A Makro-Planar f/2 100mm will also be available. All lenses are T*. In addition to the ZF series for Nikon F mount, the lenses will also be available with M42 Pentax/Practica screw fitting, enabling them to be fitted to other cameras using adapters.

Unfortunately there are no Zeiss lenses with Canon EF mount – due, I am told, to licensing difficulties. However, Nikon F to Canon EF adapters are widely available.

These new Zeiss lenses feature all-metal construction, precision engraved scales and focussing rings with wide rotation angles.

Those born into the auto-focus era should have no worries. Manual focussing is easily accomplished simply by turning a ring until the viewfinder image looks sharpest. In fact, many photographers find that manual focussing makes them feel more in control of the image making process.

Full details at **www.Zeiss.com/photo**

Zeiss lenses of course have an almost legendary reputation. Some photographers have been adapting **Contax Zeiss** lenses for use on cameras such as the Canon EOS 1Ds MkII with excellent results.

Of course there are other excellent lenses about. For example, I use a Sigma 24–70mm f/2.8 zoom on my 1Ds MkII, having found it better than the 'L" equivalent I had for test from Canon. But I have also met photographers who have found the reverse. As I said, every lens is individual and different. There is no substitute for testing and comparing.

When the Kodak agent in Sweden decided to manufacture his own brand of medium format SLR sixty years ago he chose to use Kodak Ektar lenses. Then, from 1952, he used Zeiss lenses.

Although the **Hasselblad** company was well known in Sweden it was unknown elsewhere, so adopting well-known lenses made a lot of sense.

By the 1960s Hasselblad brand recognition had risen to equal and then overtake that of Zeiss.

In 1998 Hasselblad began to take a lateral look at the future and started development of the **H1** camera. This did not use Zeiss lenses. Instead it used Hasselblad designed lenses made by **Fujinon**.

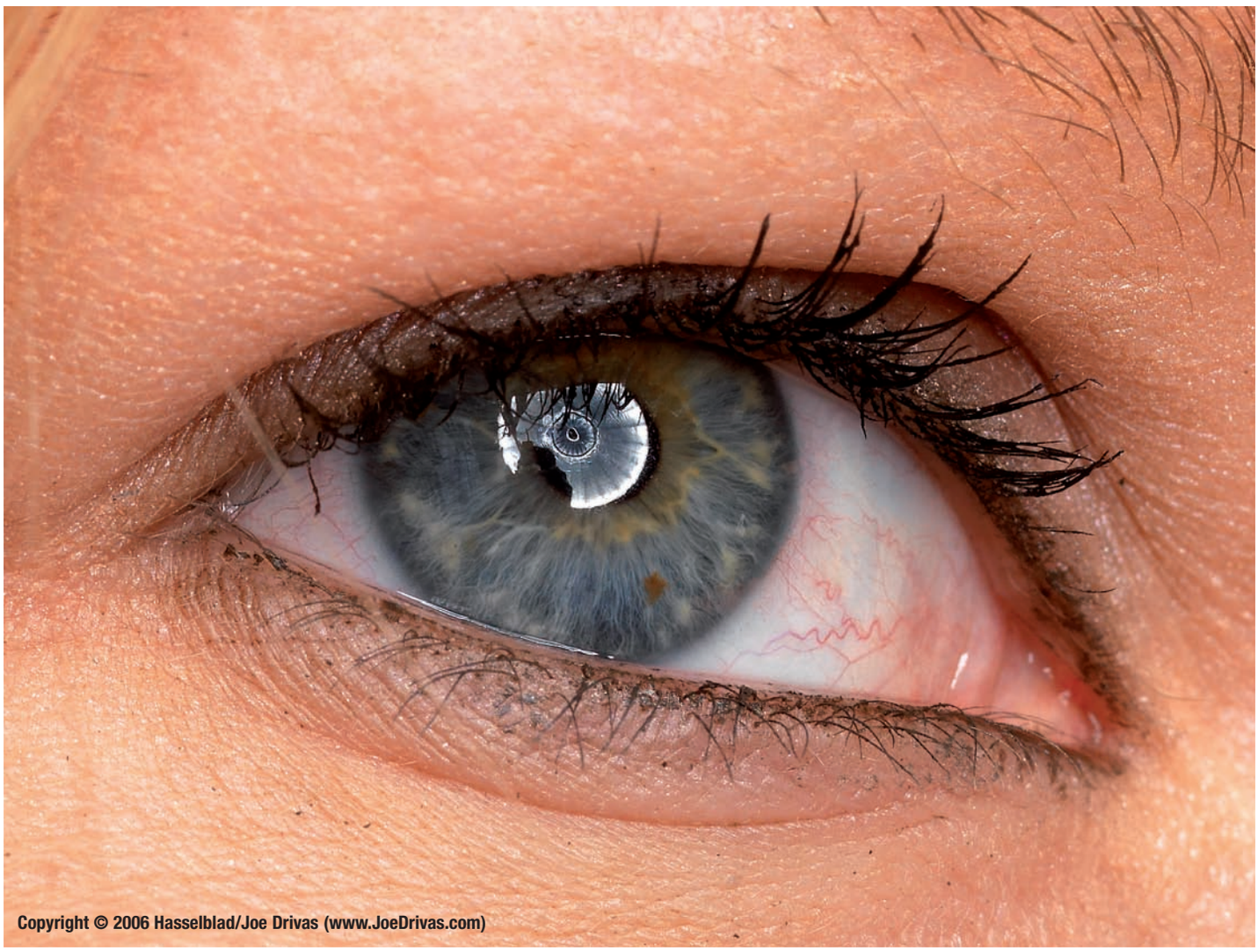
The abandonment of Zeiss lenses led to conjecture about the relative qualities of the V-series Zeiss lenses and the H-series Hasselblad designed lenses made by Fujinon. Some photographers simply assumed that they must be inferior.

ABOVE: Christian Poulsen – the charismatic CEO who saved Hasselblad two years ago – with his new H3D camera fitted with new 28mm lens. This new camera brings revolutionary new features to digital imaging. FACING PAGE: Shooting with the H3D in the Hasselblad booth at PhotoPlus Expo in New York, November 2006. TOP RIGHT: The setup. TOP LEFT: The whole shot as framed. RIGHT: Section of image at 100% (300 pixels/inch)

After visiting Hasselblad CEO Christian Poulsen in Denmark last year I decided to make a direct comparison of the two lens brands. A CF adapter, enabling V-series 'heritage' lenses to be used on H-series bodies, made this possible.

I intended to use the results for a *Chip Shop* article but, in the event, I found little or no difference between the two lens types. In fact I found that the H-series lenses – designed for digital – just outperformed the old Zeiss lenses.

Six weeks before Photokina 2004 Hasselblad and Imacon merged under the direction of Imacon's dynamic boss Christian Poulsen, the inventor of the revolutionary **Flextight** scanner which keeps film flat by flexing it into an arc.



Christian Poulsen found Hasselblad close to deep trouble and set about making some difficult but crucial changes to the company's structure.

Without the dynamism of Christian Poulsen, Hasselblad might now be no more than a famous name from the past.

With Poulsen at the helm it is once again a dynamic company at the leading edge of camera technology. He is the charismatic CEO who somehow is always available on the booth at shows, ready and eager to demonstrate and explain Hasselblad's lastest technology in person.

Photokina 2006 saw the surprise introduction of the **Hasselblad H3D** camera, which features a double frame sensor, among many other features.

I say 'double frame' sensor to indicate that the best sensors in today's medium format digital backs are twice the size of full-frame 35mm – about 36 x 48mm as compared to 24 x 36mm. Compare this to the so-called 'APS-C' sized sensors in most DSLRs. These are approximately 16 x 24mm and should more accurately be termed 'half frame' – in other words only one quarter the area of the best medium format backs.

The quality from the new H3D with its Kodak – yes, Kodak – 39 megapixel sensor is quite stunning. Just look at the 100% close up of the eye above.

When I met Christian Poulsen in Denmark last year, he was concerned by the erosion of the difference in image quality between top-end DSLRs and medium format backs. This is clearly why the H3D was made as an integrated camera system – a move which has annoyed some other manufacturers because it locks them out from using the system. But the H3D not only locks out other manufacturers but also Hasselblad

H1 and H2 users, who must now upgrade to move forward.

However, the H2 body is still available for use by those who use digital backs made by other manufacturers.

What Hasselblad is doing, though, is revolutionary. The H3D has an on-board computer which is able to take information from the lens itself to optimise performance.

For example, the precise focus of a lens varies slightly depending on the colour temperature of the light used to illuminate the scene and the infra red filter and protection glass in front of the sensor. These small differences vary with aperture and focus and, with very high resolution backs, can make a difference.

The H3D's '**Ultra-Focus**' allows focus differences to be compensated for in the split second before exposure. No manufacturer has done this so fully and completely until now.

Even the best lenses have residual amounts of chromatic aberration, barrel/pincushion distortion and vignetting. The H3D 'knows' the characteristics of the lens in use and can thus apply multiple corrections to make the image as near perfect as possible. This system is called '**Digital Apo Correction**' (DAC).

Christian Poulsen demonstrated the removal of chromatic aberration and barrel distortion to me very effectively using the complex roof structure of the Javits Convention Center in New York. Correction of vignetting has not yet been implemented but will follow in a few months time.

Christian Poulsen is clearly at pains to beat the performance of the 35mm-style DSLRs wherever possible.

He is aware that DSLR manufacturers reduce the strength of the pixel-level colour filters to let more light through, thus improving sensitivity to ISO1600 or even ISO3200, but feels that this results in undersaturated colour in the resultant images. The images then have to have their saturation increased, either in-camera or during processing of the raw files, resulting in poor colour accuracy. Hasselblad claims to be much more accurate than the DSLRs in this respect.

The new **Hasselblad HCD f/4 28mm** ultra-wideangle lens has 12 elements in 9 groups. The lens is quite an achievement for Hasselblad and Fujinon but would not have been economically viable were it not for the ability to correct its distortions and aberrations digitally after the taking of the image. I only wish it had a rectangular lenshood, instead of circular, to cut out all the non-image forming light to further minimise flare and maximise contrast.

The H3D has a choice of interchangeable eye-level or waist-level viewfinders, the latter enabling the photographer to maintain eye contact with the model while shooting but restricting shooting to landscape (horizontal) format shooting. The viewfinder image is full-frame in relation to the 36.7 x 49.0mm sensor.

Two models are available: the **H3D-22** has a 22MP sensor, whilst the **H3D-39** has a 39MP sensor. Final 8 bit RGB files from the 39MP sensor are 117MB. www.Hasselblad.com

The cameras are optimised for the new **SanDisk Extreme IV CompactFlash** cards (right) – the fastest on the market – which can write as fast as the camera can shoot.

With the new **SanDisk Extreme Firewire 800 Reader** (above left) I can copy a full 4.0GB card to the computer via **FireWire 800** in 104 seconds – that's a phenomenal speed of 39.38 megabytes per second. www.SanDisk.com

There's so much to report about the H3D that you might think that there is no other medium format digital news but this could not be further from the truth.

The other really big news is that **Sinar** www.Sinar.ch is now controlled by **Leica**, having bought **Jenoptik**'s 51% share.

It's only a few years ago since I visited Sinar and saw them making parts for the then ailing Leica.

It seems that **Dr Andreas Kaufman** – a wealthy photography enthusiast who owns almost all Leica's shares – wanted Sinar's professional business to complement the business from Leica's dedicated high-end enthusiast following.

Perhaps even bigger news was that **Franke & Heidecke** (of **Rollei** fame) had partnered with **Jenoptik** to produce a brand new digital camera system using the 6 x 6cm format and the same lens mount as the Rollei 6008AF. It is intended as an 'open' digital body for the medium-format back manufacturers – that same group who feel left out because of Hasselblad's H3D being restricted to Hasselblad backs.

For this body, Jenoptik are producing a new fully-integrated digital back, the **Hy9**, to be used by both Rollei and Sinar.

Leaf www.Leaf-photography.com is the Israeli company now owned by **Eastman Kodak**, though not a lot of Kodak employees seem to realise that. Kodak are thus still in the professional digital capture market. Mind you, there aren't a lot of Kodak professional staff or digital products left these days.

Leaf employs 60 people out of the 8000 employed in Kodak's Graphics Communications Group, which includes companies such as Creo (Leaf's former parent), NexPress and EnCad.

Leaf, when a privately owned American company, started the medium format digital market with a 4 megapixel back it launched at Photokina in 1992. ***Chip Shop*** reviewed the **Leaf DCB** in April 1993. Monumental as that launch was, Leaf has come a long way since then – including moving from the US to Israel.

Today, Leaf reckons that no less than seventy members of the Association of Photographers use its digital backs within a one mile radius of London E1.

Leaf has entered a long-term agreement with Jenoptik and will be adopting the Franke & Heidecke/ Jenoptik body, to which it will attach its own digital backs.

The product will be known as the **Leaf AFi** and will use **Schneider** 35mm, 50mm, 80mm, 100mm and 150mm lenses. There will also be a long zoom, to 180mm, and a shorter 50–100mm zoom.

The Leaf AFi will be available in three variants, mirroring its current **Aptus** backs by providing sensors of 22MP, 28MP and 33MP.

The current Aptus range was updated at Photokina to the **65s**, **75s** and **54s** – the last having a 22MP sensor and a capture rate of one shot every 0.8 seconds and being aimed at the fast-firing fashion market.

The new updated backs use **Dalsa** sensors and now have a top ISO of 800 and higher shooting speeds when using **SanDisk Extreme IV CompactFlash** cards.

Phase One www.PhaseOne.com announced the **P+** series, designed to fit medium and large format and technical cameras.

The new backs feature **XPose** – a new technology which is said to allow noise-free exposures times of up to one hour at temperatures up to 15C.

A new live preview feature has a scalable focus window and is integrated with **Capture One** software. It may be purchased for the P21, P30 and P45 backs as a hardware update.

The P+ range also introduces **OptiColor+** which gives less noise in all ISO speeds and what is claimed to be the best colour reproduction on the market. Colours are said to be maintained in the deepest shadows and skin tones are the best ever.

Dynamic+ aims to return better high ISO image quality in general – now up to ISO1600. Burst rate is up to 70 frames per minute.

The **P45+** is Phase One's 39MP flagship digital back. Next comes the 31.6MP **P30+** for top quality fashion with superior moiré control, then the 22MP **P25+** for all-round shooting, the 18MP **P21+** DSLR alternative and finally the square format **P20+** 16MP all-rounder.

All in all, 2006 has been a great year for high quality medium format digital backs – and for the state-of-the-art camera bodies to serve them.

In fact there has never been a better time to chose medium format digital.

ABOVE: Leaf's studio setup at Photokina showed the many different configurations for the Aptus 75 back.
BELOW LEFT: LEaf Aptus 75 back mounted on Hasselblad H2 body. BELOW RIGHT: On the new Jenoptik body.

ABOVE LEFT AND RIGHT: Leaf Aptus 75 back mounted on a mock-up of the forthcoming Jenoptik body.
BELOW LEFT AND RIGHT: Sinar eMotion 75 back mounted on a mock-up of the forthcoming Jenoptik body.

The John Henshall's Chip Shop archive is online at

www.epi-centre.com