**Alternative Process User's Group**

**Sunday, 2 July 2017**

Daguerreotype - the Everest of processes.

"In 1840 virtually everything that I love about photography was already there". - Chuck Close

I have joined the ranks of an exclusive group. Apparently more people have stood on the summit of Mount Everest than have made Daguerreotypes.

I’ve just come back from Mike Robinson’s three day workshop at Lacock and I’m flushed with success and giddy with excitement at the wonderful, sparkling, miraculous plates we all made. I’ve been waiting for over a year to do this; (last summer’s scheduled session didn’t happen) but it was well worth the wait. I didn’t think I could get more excited than at the 2013 wet plate collodion workshop, but apparently I can!

There were four of us on the course: Myself, Matt Lindsey (very glad I nudged him into coming along) Debi Heath, a photography student from the Midlands and Dr. Hans Gummersbach, a Daguerreotype collector who was back for his second workshop. Mike only takes a maximum of six people at a time so there’s enough time for everyone to do every stage.

Lacock Abbey was the home of William Henry Fox Talbot and now houses the Fox Talbot Museum. The curator, Roger Watson is very active in hosting workshops and other activities connected with all aspects of photography from children's sun printing sessions right up to advanced workshops on historic processes. There is an irony in the fact that Daguerre and Talbot were rivals, both announcing and claiming primacy in their inventions of photographic processes in the same year: 1839. However I hope Talbot wasn’t spinning in his grave as we explored the wonders of his rival’s process.

There isn’t sufficient space here to go into the full details of making a Daguerreotype but I’ll give a bit of an overview. The photographs are made on thin copper plates which have been plated with pure silver. The silver layer is extremely thin and needs to be perfectly smooth and clean to take the image.

Mike Robinson’s “Century Darkroom” improved plates are made to very high standards (the same material is used by NASA) with the plating apparently mirror-perfect straight out of the box. However, close examination shows a number of defects: tiny dings and scratches which would spoil the image. A couple had been roughly handled by customs inspectors when Mike arrived in the UK and bore some nasty gouges but even these were still usable.

Preparation is laborious. The first stage is to polish the surface manually using very fine metal polish on a microfibre cloth. Mike is meticulous in his methods and we all stuck to his

![Century Darkroom plates before polishing](image-url)
recommended practice of rubbing each plate for 50 strokes before revolving it a quarter turn and repeating. Once the plate had been rotated three or four times (a total of 600-800 strokes) it was carefully cleaned of all polish residue, de-greased, buffed on an electric polisher before being ready for coating.

...wrong! There are still two more polishing stages. After the electric buffer the plate needs a further 200 strokes from a velvet-covered board impregnated with jeweller’s rouge. This is then followed by 200 more with a second board covered in lamp black. All this results in a plate which is as close to perfectly smooth and free from marks as possible.

Finally the plate is ready to be sensitised. Firstly it is exposed to the fumes of iodine in a special box which controls the ‘dose’ precisely. The plate is turned 180 degrees part way through to ensure even coverage. When it emerges, the silver has taken on a yellowish tinge.

The second sensitiser is applied via a similar box which exposes the surface to bromine fumes. Bromine and iodine are both pretty dangerous chemicals but the box design ensures that they don’t escape during the process. The bromine treatment turns the plate from yellow to a pinker, almost purple colour.

Finally the plate is re-exposed to iodine under safelight for a brief time. This erases the effects of previous exposure and makes the plate light-sensitive. It’s transferred to the plate holder in the darkroom ready for use.

Unlike wet-plate collodion, the Daguerreotype plate stays sensitive for some time: several hours at least. We therefore didn’t need to rush or to have set up the camera in advance. Each of us in turn had the chance to wander the Abbey grounds and find a suitable setup. The sight of a small band of people toting an ancient mahogany half-plate camera and tripod around bemused most of the tourists who had come to this National Trust property. I think many thought we were just part of the entertainment!

For my first plate I chose a corner of the botanical garden. Daguerreotypes are superb at rendering fine detail and many early examples pack as much subject matter in as they can to exploit this. There’s also a tradition of early images of agriculture and this seems a suitable picture. The ladder was just as the gardeners had left it but I liked the reference to at least two of Talbot’s most famous images:
Matt was keen to make a much more direct homage to Talbot’s work, re-creating his Open Door picture of 1844.

The door is in the Abbey and the room behind it is currently used as a storeroom. Roger Watson kindly fetched the key and as he handed it to Matt he told us it was the original, as used by Talbot himself...

Whoa... Whenever or not you believe in ‘aura’ or ‘vibes’ or whatever you may want to call it, there is something significant about holding and using something which was owned and used by an important historical figure.
Standing in front of the door once it was opened was an equally resonant experience. To be, in effect inside the space of one of the world's most famous photographs and re-creating the framing and viewpoint used was almost eerie. Did Roger have a broom? - of course he did:
Matt’s picture, being a Daguerreotype is reversed from Talbot’s, and from reality. The real door has its hinge on the left. The camera we used had an optional reversing prism attachment so he could have ‘corrected’ it to look like the original, but he didn’t. Matt’s version is true to the reality of the Daguerre process while using the actual subject matter of Talbot. *(Discuss...)*

On the second day, Matt and I decided we both wanted to make self portraits. Normally I’m not overly keen on pictures of myself but the chance to be immortalised as a Daguerreotype couldn’t be passed up. I helped Matt set his up and he mine. Here is Matt’s:
I decided to make mine a bit more pretentious, posing with my LSC 10x8" camera in front of some stone pillars in the grounds of the Abbey. I'm holding my Watkins "Infallible" exposure meter from 1893 and trying to look like a serious photographer despite the shirt:

Here's the result:
Mike had to work especially hard to calculate the exposure for this picture. Daguerreotype plates are not very sensitive to reddish tones such as my sunburnt face and the mahogany camera. They are also poor at rendering greens like foliage. Mike though is a master of his craft and compensated for this with a 40CC yellow filter on the camera and a three stop exposure increase. (Daguerreotype plates are roughly ISO 0.3 or 6.5 stops less than ISO100) This gave us an exposure time of 10 seconds at f/4.

So far I've not mentioned the processing of the exposed plates. This famously involves mercury fumes so great care has to be taken with this highly poisonous metal. Mike has a purpose-made fuming box with its own heater for the mercury and double seal slides to keep the fumes safely inside. It sits in a portable fume hood with extractor fan just to be doubly safe. The plate can be inspected through a red window during development. Times were around 4 to 6 minutes depending on temperature.

Once developed, the image can be removed from the plate holder and fixed in normal light. the fixer is standard 'hypo' - Sodium Thiosulphate solution. This dissolves the unexposed silver halides and the image 'pops' suddenly as it emerges from the fog. All that now remains is to gild the plate.
The gilding stand is set perfectly level so the solution will sit on it without running off. The gilding solution contains gold chloride and sodium thiosulphate plus a couple of others and forms an amalgam of gold and silver iodide on the plate which increases its intensity and permanence. The solution is poured onto the plate, then heated with an alcohol lamp flame for several minutes. It's then washed in distilled water and dried.

The final image is still very fragile. We made 'passepartout' mounts in traditional style to protect them from glass, paper cutouts and card, edged with black tape. Here is Mike's test/demo plate with the four of us looking like a rock band:

We all signed the back of the plate which Roger kept for the Lacock collection. I'm not sure if it will be kept for as long as the more famous images in the museum but it's nice to feel part of history.

One of our fellow participants on the workshop was Hans Gummersbach. Hans is a collector of Daguerreotypes, owning around 500 original plates and his knowledge and enthusiasm are apparently boundless. I learned a lot from him, not just about 19th century Daguerreotypes but also an insight into the world of the specialist collector. I'd love to spend more time learning about this—hopefully we can persuade him to come and talk to us at UCA. Hans made a very interesting plate on the Sunday: a view of the Pack Horse bridge in Lacock village. This is very old and beautiful and great subject for a Daguerreotype. Hans had in mind a peaceful quiet image of the stonework, reflections and the trees which surround it.

What we'd forgotten was that Sunday morning was the time of the Lacock Road Run. Hundreds of people were running across the bridge as part of their 1km, 5km, 10km or half marathon races! Spectators and marshals were all over the place as this normally quiet spot was part of the course. Hans made a plate anyway, stopping the lens down to get an exposure time of 60 seconds. At that time the runners weren't in the frame for long enough to register, even as a blur but a child with a small white dog did enter the frame about half way through the exposure, the result was a beautiful picture with a wonderfully motion-blurred but recognisable dog and a pair of human feet.

Weberlytists: Peter Renn, Debi Harry-sorry Heath, Hans Gummersbach, Matt Lindsey.
For my final plate I wanted to try for some blue. Heavily overexposed areas on Daguerreotypes become solarised and exhibit a delicate robin’s egg blue. This is quite beautiful even though the original Daguerreotypists regarded it as an amateurish technical fault. Mike usually corrects the tendency for overexposed skies with a yellow filter but he worked out the exposure and processing (over-expose and under-develop) so I could solarise the sky on my picture.

This is the archway from the garden to the side of the Abbey. The tree and stonework have solarised haloes around them and the sky is a delicate blue. The original plate is so beautiful I almost shed a tear when I first saw it:

Looking back at the snapshots of the weekend everyone has a great big smile in almost every one:
We all had a truly remarkable time and the power of photography to move and inspire never fails. Huge thanks to Mike Robinson - now Doctor Mike Robinson (congratulations on your PhD Mike!) whose patience and manifest love of his subject were an inspiration. I hope to do it again! Roger Watson’s apparently infinite enthusiasm and patience are also very much appreciated- Thank you.

Debi Heath and Hans Gummersbach - It was lovely to meet you and I hope I see you again soon.

For more information on Mike and his Century Darkroom see: http://www.centurydarkroom.com

If you've not been to Lacock Abbey and the Fox Talbot Museum it's highly recommended. See:
The Daguerreian Society describes itself as “dedicated to the history, science and art of early photographic processes.”
http://www.daguerre.org

The International artist community of the contemporary Daguerreotype is a very interesting site:
http://cdags.org