



FAMILY ARCHIVES, WITH DAVID WILLIAMS FRPS

Our May Digital Group meeting

At our May meeting at his Heartworks Studio, David Williams FRPS gave us a preview of a keynote address he is to deliver at a conference in the US next year. David began with a sequence of family photos from his own archives, taken mainly by his father, and documenting family life from courtship through marriage, the birth of David's sister, and continuing until David himself was about five years old. He used this presentation to make several points about the importance of family records.

- Family photos are taken for the benefit and interest of the next generation, not only of the subjects of the photos. It is necessary to remind the many people who would rather not be photographed of this, and to insist that for their descendants' sake they should agree to pose.
- Part of the value of such records lies in seeing the subjects in their natural setting, at home rather than in a studio, where the familiar details of the home can stir memories that have lain dormant. David illustrated this by pointing out background details in his photo sequence which had reminded him and his sister of things they had forgotten: a favourite toy, a Red Rider tent, a stool their father had put near the fence so that his sister could stand on it to talk to the girls next door.
- The equipment used to photograph is not important: the cameras used to record David's presentation varied from Box Brownie to Speed Graphic, but the interest was not so much in the quality of reproduction (good, in any case) as in the subject.
- Group portraits showing relationships often mean more than single portraits, capturing a moment in family life. It is not necessary for the group all to have the same facial expression, e.g. smiling. David illustrated this with paintings by Velasquez and John Singer Sargent, groups with diverse expressions but still obviously a related set of people.
- The most flattering light is front lighting, avoiding emphasis on wrinkles, scars, etc. David likes to have subsidiary tungsten light from a table lamp or wall lamp off to one side or in the background to provide warmth. He advocates hallways as a good place to get a stream of direct light with nearby walls to reflect it on to the subject.

Now that most people are photographing their families digitally, there is no excuse

for poor exposure, poor lighting, or catching people with unfortunate expressions. This can all be re-done on the spot. David always tries to get his portraits right in the camera, leaving as little manipulation as possible for afterwards. On a wedding shoot, he can come away with about 3.000 images, therefore doesn't want to spend time post-processing. He takes JPEG always, to fit as many images as possible on the card, particularly important when travelling.

At the printing stage, David stresses the need to calibrate the monitor, and to use the right printer profile for the paper being used.

This was a most interesting and enlightening session, though David's suggestion for a Chapter project of taking one another's portraits was not greeted with cries of enthusiasm. Many thanks to David Williams for an enjoyable morning, and for the lunch.

Ann Lanagan

THAT OLD TECHNOLOGY – HOW DID IT WORK?

Louis Daguerre started it all in the 1830s when he accidentally (so the story goes) revealed, by means of mercury vapour, the image lying latent and invisible on the surface of a silvered copper plate. As with so many discoveries it was an empirical observation and he had no idea why it had happened.

William Henry Fox Talbot took photography on a new path in 1840 when he discovered the latent image on sensitised and exposed paper. By some clever deduction and chemical manipulation, he was able to bring up an image where nothing was visible to the naked eye. This was a quantum leap in photographic research, but he, too, had not the faintest idea how it worked. What had light done to the silver halide to make it susceptible to a chemical reducing agent? It was a mystery.

Daguerre's process recorded only the blue, violet and ultraviolet radiation from the scene before the camera. Talbot's process too, and all derivatives from it, including Archer's collodion process of 1851, were sensitive only to the more energetic part of the visible spectrum (blue and violet) and even extended into the ultraviolet and beyond. Green, red, and all in between did not exist as far as silver halides were concerned. Then Hermann Vogel stunned the photographic world by announcing in 1873 that he had discovered a way to extend the spectral sensitivity to the green, and in 1884 to the orange. It was not long before the full visible spectrum could be captured. Where there had been two mysteries, now there were three — Daguerre's, Talbot's and Vogel's.

Not that the reasons behind all this worried the average photographer. It was the scientists who took up the challenge: different ideas emerged, but the theories are too complex for us non-specialists to fully comprehend. The following simplified discussion is based partly on an article written by T.Tani, a scientist at the Fujifilm laboratory. (Note 1)

The earliest published theory concerning the formation of the latent image arose from an investigation into the preparation of photographic gelatin by Reuben Punnett and Samuel Sheppard at the Eastman Kodak laboratories in the USA. In a 1924 patent Punnett disclosed that traces of sulphur compounds normally present in the gelatin were essential for sensitisation to occur. Sheppard proposed that the sulphur reacted to form silver sulphide specks on silver halide grains and that these specks acted as sensitivity enhancers.

In the 1930s there were heated arguments between R. Gurney and N. Mott on the one hand and J. Mitchell on the other, concerning the mechanism of sensitisation. The dispute arose from the study of silver halide crystals of different sizes. Gurney and Mott proposed a theory in which each incoming photon liberated an electron from a silver halide molecule. These electrons (called photoelectrons) were thought to migrate to sensitivity sites (silver sulphide specks) where the negatively-charged electrons reduced silver ions to metallic silver, thus forming silver clusters which may be as small as a few silver atoms. Mitchell proposed that silver sulphide specks should enhance latent image formation by acting as traps.

Increasing knowledge of solid state physics led researchers including J.F. Hamilton to suggest that silver sulphide specks enhance latent image formation by acting as shallow electron traps. The latent image thus consists of the silver halide crystals in or on which small clusters of metallic silver have formed by the action of light. In the development step each latent image centre acts as a catalyst in an electrochemical reduction reaction whereby the whole grain is reduced to silver. The developer thus acts as a chemical amplifier, with a gain factor up to several billion. (Note 2)

Daguerre, Talbot, Archer *et al* would not have been impressed by the sulphur theory. The sulphur came from the gelatin binder which fixed the silver halide grains to the substrate, yet they had made perfectly good images without using any gelatin at all. If the sulphur theory were to be correct then there had to be at least another reason for the formation of the latent image.

Turning to the spectral sensitivity of silver halide emulsions, Hermann Vogel solved the problem of extending the spectral sensitivity by adding newly discovered fluorescent dyes such as eosin and erythrosin to the emulsion during manufacture. It was not immediately obvious how such dyes might work. One might imagine that it was the ability to fluoresce which did the trick — but fluorescence works the “wrong” way. In fluorescence, the molecule absorbs photons of short wavelength and high energy (blue, UV and beyond) and emits photons of lower energy and longer wavelength (e.g. green, yellow or red). But here were dyes which absorbed the longer wavelengths and somehow converted that energy into a form which silver halides could recognise.

Two mechanisms have been proposed — energy transfer and electron transfer. It seems that the eosins and some other dyes such as the cyanines form clusters of molecules (called J-aggregates) which are physically adsorbed onto silver halides.

It has been found that the J-aggregates undergo “red-shift” in which the absorption band moves to the longer wavelengths. Having absorbed such photons, electrons are thought to be transferred to the silver halide grain thus making it developable. After years of complex experiments and deep discussions this issue is still being debated.

With silver halide film technology rapidly becoming a thing of the past, financial support for this basic research will surely dry up. How that old technology really worked may be one of those profound mysteries of life for which we may never have a full explanation.

That won't occur with digital capture will it?

Alan Elliott ARPS

Notes

1. T.Tani: *Review of mechanisms of photographic sensitivity, The Imaging Science Journal*, Vol 55, No.2, June 2007, pp 65-79. The Royal Photographic Society, UK.
2. Anon, *Latent Image*, Wikipedia website, last modified 12 May 2008.

FROM YOUR SECRETARY

Visit of Roy Robertson FRPS

Roy and Barbara Robertson have now returned home to Scotland after their short trip to the Antipodes. Roy has written thanking us for the welcome they received from the Chapter here and commenting on the usefulness of the discussions. He will be taking to Council a number of items arising from our discussions, and he's offered to help the Chapter in any way he can.

From our perspective, it was certainly a most useful and productive day – and evening. As reported in the last *Newsletter*, not only were we able to raise with Roy many items concerning the running of the Chapter, but it was also a great opportunity to get advice on the Distinctions Panels, how they operate and what they are looking for. So that helped plug a large gap as we can't attend the Distinctions Workshops as may UK members.

There are now a number of items to be followed up at our end too. We've had some discussion on these since meeting Roy, and another Committee meeting is to be held this week to make further progress.

We thank Roy and Barbara for making time to meet with us in the midst of their very full Melbourne schedule, and we look forward to continued contact with them.

Our 2008 Exhibition

Details of our 2008 Exhibition, including the Entry Form, went out with the April *Newsletter*. May I remind members that your Entry Form (with Artist's Statement – and payment!) should reach David Oldfield FRPS by **13 June** – and that isn't far away. This year we are titling the exhibition *From Near and Far*, and that really does

reflect our intention that the Exhibition should be an opportunity for our more distant country and interstate members to show their work too. As mentioned last month, they may submit images on CD: these will be put together into a single digital display to be screened in the exhibition, so visitors may see prints on the walls and projected images as well.

We urge all our country and interstate members to take advantage of this opportunity and to join with our regular exhibitors in showing the diversity and high quality of photography by RPS members across Australia.

Please contact me if you've mislaid the Entry Form and I'll send another.

News of Members

We extend our congratulations to **David Williams FRPS** who has been successful in selection for the 151st RPS International Print Exhibition. This is a great honour, as only 124 images were selected from some 3000 entries world-wide. Interestingly too, this field of entries was substantially larger than last year (nearly a 25% increase). So congratulations are even more in order. Well done, David!

Vigex Exhibition

The 15th Vigex International Photography Salon 2008 is currently showing at the Geelong Gallery, Little Malop Street, Geelong (tel. 5229 3645). It was opened on 3 May by John Landy AC MBE, the former Governor of Victoria, himself a keen photographer, and continues until **Sunday 1 June**. Gallery opening hours are Mon-Fri 10-5, Sat-Sun 1-5.

Elaine Herbert ARPS
Honorary Secretary, Victorian Chapter

INTRODUCING JOHN LONG ARPS

Last month we mentioned that we'd been contacted by John Long ARPS, a very active UK member. John had happened upon a copy of our February *Newsletter* in which we reported that Barbara Butler was keen to make contact with other RPS members interested in audiovisuals — and John is; he's subsequently been in touch with her. So this seemed a good opportunity to ask John if he would like to send us a piece for the *Newsletter* telling us a little about himself, his interest in photography, and his many RPS activities.

John has come up with the goods! Thank you very much for this contribution, John, and thank you, too, for your offer of assistance to our members. It is really good to have such contact with a member in the UK, not only to share a common enthusiasm for photography, but also to get a glimpse of the many RPS activities which he's been involved with.

So here is John Long ARPS.

When I was at the RPS last month, I idly picked up a copy of your Victorian Chapter Newsletter to take home to read and came across several interesting features. As I had met Elaine when she was in Bath several years ago, I emailed to say how much I had enjoyed it – so was invited to write a piece about my involvement with the RPS and generally about my photography, so here goes.

I joined the Royal in 1979 and went for a Licentiate in 1980 with monochrome prints. It took me 10 years to get an Associateship, submitting twice with prints before getting a successful set of transparencies together and being successful in 1990!

My involvement with the RPS has evolved over the years, in particular since 1991 when I was made redundant from my Administration full-time job. At that time whilst the RPS had staff interested in photography, there was no-one who was a photographer. This meant that when a picture was wanted for publicity or for the Journal I usually received a telephone call asking “John, would you...” or when help was needed at a Workshop etc, I was asked if I could help. Perhaps I should explain that I live near Bristol and it’s just 12 miles from my home to Fenton House.

In 1991 I was asked by Bill Wisden, who at that time was Chair of the Visual Art Distinction Panel, whether I could attend the Assessments and “scribe” for him. I have been doing this ever since for subsequent Chairmen Bob Moore and now John Chamberlin. I also scribe for the Travel Panel and occasionally for the Applied and the Nature Panels. This also led to being invited to sit on the Licentiate panel in 2002 and then as one of the three Chairpersons in 2004.

We have a very active Group in the Western Region of the RPS and I was Regional Organiser for three years, and still sit on the committee. I also organised the International Slide Exhibition for three years before Lesley Goode became Exhibitions Manager. Lesley usually asks me to assist at both the International Slide Exhibition selection and the International Print Exhibition selection — so all in all I am sure you realise that during a year I see thousands of prints and slides which is very exciting and a special privilege.

I moved from darkroom photography to digital in 1997, after attending a seminar by the late Barrie Thomas. I became a personal friend of Barrie and he stayed with me on a number of occasions when in this area. He encouraged me to join the Digital Imaging special interest group (I was already a member of the Creative Group). Invited to join the committee of the D.I. Group in 1998, I organised and ran their annual Exhibition for six years. I am still on the committee and handle publicity.

I enjoy participating in internet Forums, and submit images to several international ones, and over the years have made personal friends in Canada, the USA and Portugal. Of course, the RPS Forum is visited almost daily as I give help to potential LRPS applicants

Here in the U.K., most clubs and societies are affiliated to the Photographic Alliance of Great Britain, which is split into 14 different regions, and the Western Counties

Photographic Federation control this part of the country. I was President of this Federation from 1990 to 1993, also lectured and judged from the mid sixties until last year when I decided to withdraw from the Directory. However, I am still asked, and usually accept, to judge at National Exhibitions, and several occasions at International Exhibitions.

Like most people, my personal photography has changed over the years. I was known as a portrait photographer for many years, but now it's mostly landscapes, street photography and Audio Visual. The latter came about as with a digital camera one takes so many pictures that just sit on the computer and I print just enough for my local club competitions and the occasional Exhibition. It seemed to me that creating audiovisuals and putting these pictures to music was the answer.

The vast majority of my pictures are taken on holidays, and over the years I have been on several organised Photo Holidays, to the USA and to Chile. I have been to Spain, France, Holland, Venice, Switzerland, the Holy Land — and guess where? — to Australia in 2006! I came for a month, firstly to Perth for my nephew's wedding, then to Cairns, Melbourne and Sydney, when I had the pleasure of meeting Tony and Joan Healy.

If I can be of any help to anyone in your Chapter with information about the U.K or the RPS, my email address is: johnlong@lineone.net

I also have a website and would welcome any feedback if you wish to view it. The URL is: john-long.co.uk

Hope I haven't bored you all – and wish you every success in your photography.

John.A.Long ARPS, DPAGB, Hon.PAGB

BREAKING NEWS!

We have just heard some very good news from **Peter Hunter OAM ARPS**. He has just become engaged to Una Brown. This is wonderful news and we send him our congratulations on behalf of all the Victorian Chapter.

As our regular readers know, Peter was the first Convenor of the Victorian Chapter and he moved to northern New South Wales a couple of years ago after living in Melbourne for many years. Una lives in Lismore, not far from Peter's new home, and she's a very keen photographer too. So perhaps we have another potential member of the Chapter!

We wish Peter and Una great happiness for their future together — and we hope to see them down here in Melbourne before long.

Elaine Herbert ARPS

HISTORY GROUP NEWS

Our activities for the month have concentrated on the final tidying of the manuscript of our project report for the printer along with its accompanying illustrations.

The preparation of the index is now in hand.

The date of the next meeting will be advised.

Max Melvin ARPS

PHOTOGRAPHY GALLERY AT FAIRFIELD

New North Fine Art combines photographic printing and a gallery approximately the size of 80 Gold Street. It is owned by David Johns and Michael Silver, and is open Friday, Saturday and Sunday from 10 am to 4 pm, at 13a Railway Place, Fairfield, just across the road from Fairfield station. They offer printing on fine art papers and other surfaces, using a 44-inch Canon printer with archival inks.

The next exhibition to open will do so on Thursday 29th May, and run until 29th June. It is titled *Malcolm Fraser: a Photographic Memoir*, by the Rt. Hon. Malcolm Fraser, AC CH.

The gallery's phone number is 9018 3081 and the email address is david@newnorth.com.au.

NEXT CHAPTER MEETING

This will be our Casserole Night at Robert Morgan's home, 24 Park Road, Surrey Hills (Melway 61 A2) , corner of Oak Street. Meet at 7 pm on Wednesday 11th June, and the theme for the night is Travel. Phone Elaine or Ann (numbers on front page) to arrange what food you will bring.

NEXT DIGITAL GROUP MEETING

Because our Exhibition will be showing in July, the next scheduled meeting will be on Wednesday 10th September at 10.30 am, at the home of Palli Gajree, on the theme of *Hands*. Anyone who would like an earlier meeting than this, please get in touch with Jack Lanagan to make arrangements.

NEXT HISTORY GROUP MEETING

To be advised.